

Oracle  
**Primavera**  
**P6 EPPM Web Services Reference Guide**

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# Cloud or On-Premises Content

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Within our documentation, some content might be specific for cloud deployments while other content is relevant for on-premises deployments. Any content that applies to only one of these deployments is labeled accordingly.

## About Personal Information

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Personal information (PI) is any piece of data which can be used on its own or with other information to identify, contact or locate an individual or identify an individual in context. This information is not limited to a person's name, address, and contact details, for example a person's IP address, phone IMEI number, gender, and location at a particular time could all be personal information. Organizations are responsible for ensuring the privacy of PI wherever it is stored, including in back-ups, locally stored downloads, and data stored in development environments.

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**Caution:** Personal information (PI) may be at risk of exposure. Depending on local data protection laws organizations may be responsible for mitigating any risk of exposure.

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## What's New In P6 EPPM Web Services

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### What's Changed in this Release

The following changes have been made for this release.

Release	What's New
22.12	New fields have been added to the Export and Relationship services. See <b>Interface Change Details</b> (on page 28) for more information.
22.11	A new field has been added to the Activity and Export services. New operations have been added to the Document service. New elements have been added to the CopyProject operation of the Project service. A new element has been added to the CopyWBSFromTemplate Operation of the WBS service. See <b>Interface Change Details</b> (on page 28) for more information.

22.10	<p>A new field has been added to the ActivityComments service.          A new optional element has been added to the ReadRelationships Operation of the Relationships service.          A field has been renamed in the UserInterfaceView service.          See <b>Interface Change Details</b> (on page 28) for more information.</p>
22.9	<p>New data type areas and fields have been added to the Export service.          New fields have been added to the Job service.          A new field has been added to the Project service.          A new field has been added to the Relationships service.          A new field has been added to the UserInterfaceView service.          See <b>Interface Change Details</b> (on page 28) for more information.</p>
22.8	<p>A new option has been added to the User Service.          See <b>Interface Change Details</b> (on page 28) for more information.</p>
22.6	<p>New fields have been added to the ScheduleCheckOption service.          See <b>Interface Change Details</b> (on page 28) for more information.</p>
22.4	<p>A new UDFieldTypeField has been added to the Export and UDFieldType services.          See <b>Interface Change Details</b> (on page 28) for more information.</p>
22.2	<p>A new operation has been added to the Calendar service.          See <b>Interface Change Details</b> (on page 28) for more information.</p>

## Interface Change Details

The following table provides an overview of updated field lengths, updated values, new fields, and new enumerations.

WSDL	Field Level Changes	Release
Export.wsdl	<p>The following BusinessObjectOptions element has been added to the Export service:</p> <ul style="list-style-type: none"> <li>▶ PredActIsLongestPath</li> <li>▶ PredActPercentCompleteType</li> <li>▶ PredActualFinishDate</li> <li>▶ PredActualStartDate</li> <li>▶ PredEarlyFinishDate</li> <li>▶ PredEarlyStartDate</li> <li>▶ PredFreeFloat</li> <li>▶ PredLateFinishDate</li> <li>▶ PredLateStartDate</li> <li>▶ PredTotalFloat</li> <li>▶ PredecessorProjectName</li> <li>▶ PredecessorWbsShortName</li> </ul>	22.12
Relationship.wsdl	<p>The following fields have been added to the Relationship Fields:</p> <ul style="list-style-type: none"> <li>▶ PredActIsLongestPath</li> <li>▶ PredActPercentCompleteType</li> <li>▶ PredActualFinishDate</li> <li>▶ PredActualStartDate</li> <li>▶ PredEarlyFinishDate</li> <li>▶ PredEarlyStartDate</li> <li>▶ PredFreeFloat</li> <li>▶ PredLateFinishDate</li> <li>▶ PredLateStartDate</li> <li>▶ PredTotalFloat</li> <li>▶ PredecessorProjectName</li> <li>▶ PredecessorWbsShortName</li> </ul>	22.12
Activity.wsdl	<p>The following field has been added to the Activity Fields:</p> <ul style="list-style-type: none"> <li>▶ ProjectNameSepChar</li> </ul>	22.11
Document.wsdl	<p>The following operations have been added to the Document service:</p> <ul style="list-style-type: none"> <li>▶ UploadDocument</li> <li>▶ DownloadDocument</li> <li>▶ CheckinDocument</li> <li>▶ CheckoutDocument</li> </ul>	22.11

Export.wsdl	<p>The following BusinessObjectOptions element has been added to the Export service:</p> <ul style="list-style-type: none"> <li>▶ ProjectNameSepChar</li> </ul> <p>The following data type areas have been added to the Export service:</p> <ul style="list-style-type: none"> <li>▶</li> </ul>	22.11
Project.wsdl	<p>The following elements have been added to the CopyProject Operation:</p> <ul style="list-style-type: none"> <li>▶ CopyAssignmentCodes</li> <li>▶ CopyActivityRisks</li> </ul>	22.11
WBS.wsdl	<p>The following element has been added to the CopyWBSFromTemplate Operation:</p> <ul style="list-style-type: none"> <li>▶ CopyAssignmentCodes</li> </ul>	22.11
ActivityComment.wsdl	<p>The following field has been added to the ActivityComment Fields:</p> <ul style="list-style-type: none"> <li>▶ ProjectObjectId</li> </ul>	22.10
Relationship.wsdl	<p>The ReadRelationships Operation can now accept an optional element specifying a LagProjectId</p>	22.10
UserInterfaceView.wsdl	<p>The Project field TimesheetApprovalApproval has been renamed to TimesheetApproval.</p>	22.10
Export.wsdl	<p>The following data type areas and their associated BusinessObjectOptions elements have been added to the Export service:</p> <ul style="list-style-type: none"> <li>▶ ResourceAssignmentCode</li> <li>▶ ResourceAssignmentCodeAssignment</li> <li>▶ ResourceAssignmentCodeType</li> </ul>	22.9
Job.wsdl	<p>The following fields have been added to the Schedule Operation:</p> <ul style="list-style-type: none"> <li>▶ EPSObjectId</li> <li>▶ PortfolioObjectId</li> </ul>	22.9
Project.wsdl	<p>The following field has been added to the Project Fields:</p> <ul style="list-style-type: none"> <li>▶ ExternalCRKey</li> </ul>	22.9
Relationships.wsdl	<p>The following field has been added to the Relationship Fields:</p> <ul style="list-style-type: none"> <li>▶ LagProjectId</li> </ul>	22.9
UserInterfaceView.wsdl	<p>The following field has been added to the UserInterfaceView Fields:</p> <ul style="list-style-type: none"> <li>▶ TimesheetApprovalApproval</li> </ul>	22.9

User.wsdl	The following value has been added to the RoleLimitDisplayOption list in User Fields <ul style="list-style-type: none"> <li>▶ Calculated Primary Active Resources Limit</li> </ul>	22.8
ScheduleCheckOption.wsdl	The following fields have been added to the ScheduleCheckOption Fields: <ul style="list-style-type: none"> <li>▶ CheckDanglingFinish</li> <li>▶ CheckDanglingStart</li> <li>▶ DanglingFinishTarget</li> <li>▶ DanglingStartTarget</li> </ul>	22.6
Export.wsdl	The following field has been added to the UDFType List in BusinessObjectOptions Element: <ul style="list-style-type: none"> <li>▶ DisplayIndicatorFlag</li> </ul>	22.4
UDFType.wsdl	The following field type has been added to UDFTypeFields: <ul style="list-style-type: none"> <li>▶ DisplayIndicatorFlag</li> </ul>	22.4
Calendar.wsdl	The following operation has been added to the Calendar Service: <ul style="list-style-type: none"> <li>▶ CopyCalendar</li> </ul>	22.2





# Activity Services

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## Activity Service

### Operations:

- CreateActivities Operation** (on page 34)
- ReadActivities Operation** (on page 34)
- UpdateActivities Operation** (on page 35)
- DeleteActivities Operation** (on page 35)
- CopyActivity Operation** (on page 36)
- ReadAllActivitiesByWBS Operation** (on page 37)
- GetFieldLengthActivity Operation** (on page 36)
- DissolveActivity Operation** (on page 37)

### WSDL: Activity.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Activity/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/ActivityService?wsdl  
https://<hostname>:<port number>/p6ws/services/ActivityService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.activity.ActivityService

**Description:**

The Activity service enables you to manage aspects of a project related to an activity. An activity is a unit of work performed during the course of a project. Activities have the following characteristics:

- ▶ They can be subdivided into activity steps
- ▶ They often have activity expenses and resource assignments associated with them
- ▶ They have a parent WBS (Note: Activities assigned to the root WBS are considered to be assigned to the project itself.)
- ▶ They can have user defined fields (UDFs) and codes assigned to them. To assign UDFs and activity codes to an activity, use the UDFValue and ActivityCodeAssignment services, respectively.

### CreateActivities Operation

Description: Creates multiple Activity objects in the database. You can create up to 1000 Activity objects with a single call.

**Service:** *Activity Service* (on page 33)

Style: Document/literal wrapped

Input:

Message: CreateActivities

Elements: Activity elements that contain **Activity Fields** (on page 38) fields

Required fields: You must supply either the ProjectObjectId or the WBSObjectId field when you use the CreateActivities operation. All other fields are optional.

Output:

Message: CreateActivitiesResponse

Output: Zero to many ObjectId elements

### ReadActivities Operation

Description: Reads Activity objects from the database.

**Service:** *Activity Service* (on page 33)

Style: Document/literal wrapped

Input:

Message: ReadActivities

Elements: One to many field names from the **Activity Fields** (on page 38) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivitiesResponse

Output: Zero to many Activity elements that contain Activity fields.

### UpdateActivities Operation

Description: Updates multiple Activity objects in the database. You can update up to 1000 Activity objects with a single call.

**Service:** *Activity Service (on page 33)*

Style: Document/literal wrapped

Input:

Message: UpdateActivities

Elements: Activity elements that contain **Activity Fields** (on page 38) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateActivitiesResponse

Output: boolean

### DeleteActivities Operation

Description: Deletes multiple Activity objects in the database. You can delete up to 1000 Activity objects with a single call.

**Service:** *Activity Service (on page 33)*

Style: Document/literal wrapped

Input:

Message: DeleteActivities

Elements: One to many ObjectID elements

Output:

Message: DeleteActivitiesResponse

Output: boolean

## GetFieldLengthActivity Operation

Description: Returns length of variable character fields for a BO.

**Service:** *Activity Service (on page 33)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivity

Elements: FieldLength

Output:

Message: GetFieldLengthActivityResponse

Elements: One to many FieldLengthActivities.

## CopyActivity Operation

Description: This operation copies the activity to a project or a WBS. The WBS can be in the current project or in a different project. If both the project ObjectId and the WBS ObjectId are specified, the WBS ObjectId will take precedence.

**Service:** *Activity Service (on page 33)*

Style: Document/literal wrapped

Input:

Message: CopyActivity

Elements:

- ▶ ObjectId
- ▶ TargetProjectObjectId
- ▶ TargetWBSObjectId
- ▶ TargetActivityId
- ▶ CopyResourceAndRoleAssignments
- ▶ CopyRelationships
- ▶ CopyActivityCodes
- ▶ CopyActivityNotes
- ▶ CopyActivityExpenses
- ▶ CopyActivitySteps
- ▶ CopyProjectDocuments
- ▶ CopyPastPeriodActuals

Required fields You must supply the ObjectId and at least one of the following fields when you use the CopyActivity operation:

- ▶ TargetProjectObjectId
- ▶ TargetWBSObjectId

All other fields are optional.

**Output:**

Message: CopyActivityResponse

Elements: An ObjectId representing the unique identifier of the new activity.

### ReadAllActivitiesByWBS Operation

Description: Reads Activity objects that are associated with the specified WBS or any descendant WBS from the database.

**Service:** *Activity Service* (on page 33)

Style: Document/literal wrapped

**Input:**

Message: ReadAllActivitiesByWBS

Elements:

- ▶ One WBSObjectId element
- ▶ One to many field names from the **Activity Fields** (on page 38) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

**Output:**

Message: ReadAllActivitiesByWBSResponse

Output: Zero to many Activity elements that contain **Activity Fields** (on page 38) fields.

### DissolveActivity Operation

Description: Deletes the activity without breaking the relationship chains. The successors of the activity will become successors of its predecessors, and the predecessors of the activity will become predecessors of its successors.

**Service:** *Activity Service* (on page 33)

Style: Document/literal wrapped

**Input:**

Message: DissolveActivity

Elements:

- ▶ ObjectId

**Output:**

Message: DissolveActivityResponse

Elements: boolean.

## Activity Fields

Field	Type	Read Only	Filterable Orderable	Description
AccountingVariance	double	X		The difference between the planned value of work scheduled and the actual cost of work performed. Computed as accounting variance = planned value - actual cost . A negative value indicates that actual costs have exceeded the scheduled costs.
AccountingVariance LaborUnits	double	X		The difference between the planned value of work scheduled and the actual work performed. Computed as accounting variance labor units = planned value labor units - actual units. A negative value indicates that actual costs have exceeded the scheduled costs.
ActivityOwnerUserId	int	X	X	The unique user ID of the activity owner.
ActualDuration	double restricted to minInclusive(0.0)			The total working time from the activity actual start date to the actual finish date (for completed activities), or to the current data date (for in-progress activities). The actual working time is computed using the activity's calendar.
ActualExpenseCost	double	X		The actual costs for all project expenses associated with the activity.
ActualFinishDate	dateTime		X	The date on which the activity is actually finished.
ActualLaborCost	double			The actual costs for all labor resources assigned to the activity. If no resources are assigned,

				computed as the activity actual labor units * project default price / time.
ActualLaborUnits	double		X	The actual units for all labor resources assigned to the activity.
ActualMaterialCost	double	X		The sum of all regular and overtime costs for material resources.
ActualNonLaborCost	double			The actual costs for all nonlabor resources assigned to the activity. If no resources are assigned, computed as the activity actual nonlabor units * project default price / time.
ActualNonLaborUnits	double		X	The actual units for all nonlabor resources assigned to the activity.
ActualStartDate	dateTime		X	The date on which the activity is actually started.
ActualThisPeriodLaborCost	double			The actual this period labor cost for all labor resources assigned to the activity.
ActualThisPeriodLaborUnits	double		X	The actual this period labor units (hours) for all labor resources assigned to the activity.
ActualThisPeriodMaterialCost	double	X		The sum of all material resource costs for the current period.
ActualThisPeriodNonLaborCost	double			The actual this period nonlabor cost for all nonlabor resources assigned to the activity. If no resources are assigned, computed as the activity actual nonlabor units * project default price / time.
ActualThisPeriodNonLaborUnits	double		X	The actual this period nonlabor units (hours) for all nonlabor resources assigned to the activity.

ActualTotalCost	double	X		The actual total cost for the activity, including labor resources, nonlabor resources, and project expenses. Actual total cost = actual labor costs + actual nonlabor costs + actual expense costs.
ActualTotalUnits	double	X		the sum of Actual Labor Units and Actual Nonlabor Units.
AtCompletionDuration	double restricted to minInclusive(0.0)			The total working time from the activity's current start date to the current finish date. The current start date is the planned start date until the activity is started, then it is the actual start date. The current finish date is the activity planned finish date while the activity is not started, the remaining finish date while the activity is in progress, and the actual finish date once the activity is completed. The total working time is computed using the activity's calendar.
AtCompletionExpenseCost	double	X		The sum of the actual plus remaining costs for all expenses associated with the activity. Computed as actual expense cost + remaining expense cost.
AtCompletionLaborCost	double			The sum of the actual plus remaining costs for all labor resources assigned to the activity. Computed as actual labor cost + remaining labor cost. Same as the planned labor costs if the activity is not started and the actual labor costs once the activity is completed.
AtCompletionLaborUnits	double		X	The sum of the actual plus remaining units for all labor resources assigned to the activity. Computed as actual labor units + remaining labor units. Same as the planned labor units if the activity is not started and the



				actual labor units once the activity is completed.
AtCompletionLaborUnitsVariance	double	X		The project baseline planned total labor units minus the estimate at completion labor units.
AtCompletionMaterialCost	double	X		The sum of all actual and remaining costs for material resources.
AtCompletionNonLaborCost	double			The sum of the actual plus remaining costs for all nonlabor resources assigned to the activity. Computed as actual nonlabor cost + remaining nonlabor cost. Same as the planned nonlabor costs if the activity is not started and the actual nonlabor costs once the activity is completed.
AtCompletionNonLaborUnits	double		X	The sum of the actual plus remaining units for all nonlabor resources assigned to the activity. Computed as actual nonlabor units + remaining nonlabor units. Same as the planned nonlabor units if the activity is not started and the actual nonlabor units once the activity is completed.
AtCompletionTotalCost	double	X		The total cost at completion for the activity, including labor resources, nonlabor resources, and project expenses. At completion total cost = at completion labor cost + at completion nonlabor cost + at completion expense cost.
AtCompletionTotalUnits	double	X		The sum of the actual plus remaining units for the resource assignment on the activity.
AtCompletionVariance	double	X		The difference between the project baseline total cost and the current estimate of total cost. Computed as $VAC = BAC - EAC$ . A negative value indicates an estimated cost overrun. BAC is

				computed from the current project baseline.
AutoComputeActuals	boolean		X	The option that determines whether the activity's actual and remaining units, start date, finish date, and percent complete are computed automatically using the planned dates, planned units and the schedule percent complete. If this option is selected, the actual/remaining units and actual dates are automatically updated when project actuals are applied. Use this option to assume that all work for the activity proceeds according to plan.
Baseline1Duration	double		X	The duration for the activity in the primary baseline. The duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar.
Baseline1FinishDate	dateTime		X	The current finish date of the activity in the primary baseline. Set to the activity planned finish date while the activity is not started, the remaining finish date while the activity is in progress, and the actual finish date once the activity is completed.
Baseline1PlannedDuration	double		X	The planned duration for the activity in the primary baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar. This field is named Baseline 1 Budgeted Duration in Primavera's Engineering & Construction and Maintenance &

				Turnaround solutions.
Baseline1PlannedExpenseCost	double	X		The planned costs for all project expenses associated with the activity. This field is named Baseline 1 Budgeted Expense Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline1PlannedLaborCost	double	X		The cost at completion for all labor resources assigned to the activity in the primary baseline. Computed from the primary baseline at completion labor units. If no resources are assigned, computed as the activity BL labor units * project default price / time. This field is named Baseline 1 Budgeted Labor Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline1PlannedLaborUnits	double	X		The planned units for all labor resources assigned to the activity. This field is named Baseline 1 Budgeted Labor Units in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline1PlannedMaterialCost	double	X		The Planned Material Cost for a primary baseline activity.
Baseline1PlannedNonLaborCost	double	X		The planned costs for all nonlabor resources assigned to the activity. If no resources are assigned, computed as the activity planned nonlabor units * project default price / time. This field is named Baseline 1 Budgeted Non Labor Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline1PlannedNonLaborUnits	double	X		The planned units for all nonlabor resources assigned to the activity.

				This field is named Baseline 1 Budgeted Non Labor Units in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline1PlannedTotalCost	double	X		The planned total cost for the activity, including labor resources, nonlabor resources, and project expenses. Planned total cost = planned labor cost + planned nonlabor cost + planned expense cost. This field is named Baseline 1 Budgeted Total Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline1StartDate	dateTime	X		The current start date of the activity in the primary baseline. Set to the planned start date until the activity is started, then set to the actual start date.
BaselineDuration	double	X		The duration for the activity in the project baseline. The duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar.
BaselineFinishDate	dateTime	X		The current finish date of the activity in the project baseline. Set to the activity planned finish date while the activity is not started, the remaining finish date while the activity is in progress, and the actual finish date once the activity is completed.
BaselinePlannedDuration	double	X		The planned duration for the activity in the project baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is

				computed using the activity's calendar. This field is named Baseline Budgeted Duration in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
BaselinePlannedExpenseCost	double	X		The planned costs for all project expenses associated with the activity. This field is named Baseline Budgeted Expense Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
BaselinePlannedLaborCost	double	X		The cost at completion for all labor resources assigned to the activity in the project baseline. Computed from the baseline at completion labor units. If no resources are assigned, computed as the activity BL labor units * project default price / time. This field is named Baseline Budgeted Labor Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
BaselinePlannedLaborUnits	double	X		The planned units for all labor resources assigned to the activity. This field is named Baseline Budgeted Labor Units in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
BaselinePlannedMaterialCost	double	X		The Planned Material Cost for a project baseline activity.
BaselinePlannedNonLaborCost	double	X		The planned costs for all nonlabor resources assigned to the activity. If no resources are assigned, computed as the activity planned nonlabor units * project default price / time. This field is named Baseline Budgeted Non Labor Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.

BaselinePlannedNonLaborUnits	double	X		The planned units for all nonlabor resources assigned to the activity in the project baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar. This field is named Baseline Budgeted Duration in Primavera's Engineering & Construction and Maintenance & Turnaround solutions. This field is named Baseline Budgeted Non Labor Units in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
BaselinePlannedTotalCost	double	X		The planned total cost for the activity, including labor resources, nonlabor resources, and project expenses. Planned total cost = planned labor cost + planned nonlabor cost + planned expense cost. This field is named Baseline Budgeted Total Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions. This field is named Baseline Budgeted Expense Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
BaselineStartDate	dateTime	X		The current start date of the activity in the project baseline. Set to the planned start date until the activity is started, then set to the actual start date.
Baseline2Duration	double	X		The duration for the activity in the user's secondary baseline. The duration is the total working time

				from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar.
Baseline2FinishDate	dateTime	X		The planned units for all labor resources assigned to the activity. This field is named Baseline Budgeted Labor Units in Primavera's Engineering & Construction and Maintenance & Turnaround solutions. The current finish date of the activity in the user's secondary baseline. Set to the activity planned finish date while the activity is not started, the remaining finish date while the activity is in progress, and the actual finish date once the activity is completed.
Baseline2PlannedDuration	double	X		The planned duration for the activity in the user's secondary baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar. This field is named Baseline Budgeted Duration in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline2PlannedExpenseCost	double	X		The planned costs for all project expenses associated with the activity in the user's secondary baseline. This field is named Baseline Budgeted Expense Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.

Baseline2PlannedLaborCost	double	X		The planned costs for all project expenses associated with the activity in the user's secondary baseline. This field is named Baseline Budgeted Expense Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline2PlannedLaborUnits	double	X		The planned units for all labor resources assigned to the activity in the user's secondary baseline. This field is named Baseline Budgeted Labor Units in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline2PlannedMaterialCost	double	X		The Planned Material Cost for the activity in the user's secondary baseline.
Baseline2PlannedNonLaborCost	double	X		The planned costs for all nonlabor resources assigned to the activity in the user's secondary baseline. If no resources are assigned, computed as the activity planned nonlabor units * project default price / time. This field is named Baseline Budgeted Non Labor Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.



Baseline2PlannedNonLaborUnits	double	X		The planned units for all nonlabor resources assigned to the activity in the user's secondary baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar. This field is named Baseline Budgeted Duration in Primavera's Engineering & Construction and Maintenance & Turnaround solutions. This field is named Baseline Budgeted Non Labor Units in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline2PlannedTotalCost	double	X		The planned total cost for the activity in the user's secondary baseline. Total cost includes the costs for labor resources, nonlabor resources, and project expenses. Planned total cost = planned labor cost + planned nonlabor cost + planned expense cost. This field is named Baseline Budgeted Total Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions. This field is named Baseline Budgeted Expense Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline2StartDate	dateTime	X		The current start date of the activity in the user's secondary baseline. Set to the planned start date until the activity is started, then set to the actual start date.

Baseline3Duration	double	X		The duration for the activity in the user's tertiary baseline. The duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar.
Baseline3FinishDate	dateTime	X		The current finish date of the activity in the user's tertiary baseline. Set to the activity planned finish date while the activity is not started, the remaining finish date while the activity is in progress, and the actual finish date once the activity is completed.
Baseline3PlannedDuration	double	X		The planned duration for the activity in the user's tertiary baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar. This field is named Baseline Budgeted Duration in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline3PlannedExpenseCost	double	X		The planned costs for all project expenses associated with the activity in the user's tertiary baseline. This field is named Baseline Budgeted Expense Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.

Baseline3PlannedLaborCost	double	X		The planned costs for all project expenses associated with the activity in the user's tertiary baseline. This field is named Baseline Budgeted Expense Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline3PlannedLaborUnits	double	X		The planned units for all labor resources assigned to the activity in the user's tertiary baseline. This field is named Baseline Budgeted Labor Units in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
Baseline3PlannedMaterialCost	double	X		The Planned Material Cost for the activity in the user's tertiary baseline.
Baseline3PlannedNonLaborCost	double	X		The planned costs for all nonlabor resources assigned to the activity in the user's tertiary baseline. If no resources are assigned, computed as the activity planned nonlabor units * project default price / time. This field is named Baseline Budgeted Non Labor Cost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.

Baseline3PlannedNonLaborUnits	double	X	<p>The planned units for all nonlabor resources assigned to the activity in the user's tertiary baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar. This field is named Baseline Budgeted Duration in Primavera's Engineering &amp; Construction and Maintenance &amp; Turnaround solutions. This field is named Baseline Budgeted Non Labor Units in Primavera's Engineering &amp; Construction and Maintenance &amp; Turnaround solutions.</p>
Baseline3PlannedTotalCost	double	X	<p>The planned total cost for the activity in the user's tertiary baseline. Total cost includes the costs for labor resources, nonlabor resources, and project expenses. Planned total cost = planned labor cost + planned nonlabor cost + planned expense cost. This field is named Baseline Budgeted Total Cost in Primavera's Engineering &amp; Construction and Maintenance &amp; Turnaround solutions. This field is named Baseline Budgeted Expense Cost in Primavera's Engineering &amp; Construction and Maintenance &amp; Turnaround solutions.</p>
Baseline3StartDate	dateTime	X	<p>The current start date of the activity in the user's tertiary baseline. Set to the planned start date until the activity is started, then set to the actual start date.</p>

BudgetAtCompletion	double	X		The planned total cost through activity completion. Computed as planned labor cost + planned nonlabor cost + planned expense cost, same as the planned total cost.
CBSCode	string restricted to maxLength(1024)		X	The unique name of the Unifier CBS Code. Assign CBS codes to activities so that you can filter which activities you will send to Unifier.
CBSId	int		X	The unique Id of CBS Code.
CBSObjectId	int	X	X	The identifier of the CoUnifier CBS.
CalendarName	string restricted to maxLength(255)	X	X	The name of the calendar.
CalendarObjectId	int		X	The unique ID of the calendar assigned to the activity. Activity calendars can be assigned from the global calendar pool or the project calendar pool.
CostPercentComplete	double	X		The percent complete of costs for all labor resources, nonlabor resources, and expenses for the activity. Computed as actual total cost / at completion total cost * 100. Always in the range 0 to 100.
CostPercentOfPlanned	double	X		The percent complete of planned costs for all labor resources, nonlabor resources, and expenses for the activity. Computed as actual total cost / BL planned total cost * 100. The value can exceed 100.
CostPerformanceIndex	double	X		The earned value divided by the actual cost. A value less than 1 indicates that actual cost have exceeded the planned value.

CostPerformanceIndexLaborUnits	double	X		The ratio of the earned value labor units and the actual work performed. Computed as $CPI \text{ labor units} = \text{earned value labor units} / \text{actual labor units}$ .
CostVariance	double	X		The difference between the earned value and the actual cost of work performed. Computed as $CV = \text{earned value} - \text{actual costs}$ . A negative value indicates that actual costs have exceeded the value of work performed.
CostVarianceIndex	double	X		The ratio of the cost variance and the earned value of work performed. Computed as $CVI = \text{cost variance} / \text{earned value}$ .
CostVarianceIndexLaborUnits	double	X		The ratio of the cost variance labor units and the earned value of work performed. Computed as $CVI \text{ labor units} = CV \text{ labor units} / \text{earned value labor units}$
CostVarianceLaborUnits	double	X		The difference between the earned value of labor units and the actual cost of labor units. Calculated as $CV \text{ labor units} = \text{earned value planned units} - \text{actual units}$ . A negative value indicates that actual costs have exceeded the value of work performed.
CreateDate	dateTime	X	X	The date this activity was created.
CreateUser	string restricted to maxLength( 255)	X	X	The name of the user that created this activity.
DataDate	dateTime	X		The current data date for the project. The project status is up to date as of the data date. The data date is modified when project actuals are applied.
Duration1Variance	double	X		The duration between the activity's primary baseline duration

				and the at complete duration. Computed as primary baseline duration - at completion duration.
Duration2Variance	double	X		The duration between the activity's baseline duration and the at complete duration. Computed as user's secondary baseline duration - at completion duration.
Duration3Variance	double	X		The duration between the activity's baseline duration and the at complete duration. Computed as user's tertiary baseline duration - at completion duration.
DurationPercentComplete	double restricted to minInclusive(0.0)			The percent complete of the activity duration. Computed as (planned duration - remaining duration) / planned duration * 100. Always in the range 0 to 100. The planned duration is taken from the current plan, not from the baseline.
DurationPercentOfPlanned	double	X		The activity actual duration percent of planned. Computed as actual duration / BL duration * 100. The value can exceed 100. The BL duration is the activity's at completion duration from the project baseline.
DurationType	string restricted to 'Fixed Units/Time' 'Fixed Duration and Units/Time' 'Fixed Units' 'Fixed Duration and Units'		X	The duration type of the activity. One of 'Fixed Units/Time', 'Fixed Duration and Units/Time', 'Fixed Units', or 'Fixed Duration and Units'. For 'Fixed Units/Time' activities, the resource units per time are constant when the activity duration or units are changed. This type is used when an activity has fixed resources with fixed productivity output per time period. For 'Fixed Duration and Units/Time' activities, the activity duration is constant as the units or resource units per time are changed. This type is used when the activity is to be completed within a fixed time

				period regardless of the resources assigned. For 'Fixed Units' activities, the activity units are constant when the duration or resource units per time are changed. This type is used when the total amount of work is fixed, and increasing the resources can decrease the activity duration.
DurationVariance	double	X		The duration between the activity's project baseline duration and the at complete duration. Computed as project baseline duration - at completion duration.
EarlyFinishDate	dateTime	X	X	The earliest possible date the activity can finish. This date is computed by the project scheduler based on network logic, schedule constraints, and resource availability.
EarlyStartDate	dateTime	X	X	The earliest possible date the remaining work for the activity can begin. This date is computed by the project scheduler based on network logic, schedule constraints, and resource availability.
EarnedValueCost	double	X		The portion of the project baseline total cost of the activity that is actually completed as of the project data date. Computed as earned value = BAC * performance % complete. The method for computing performance % complete depends on the earned-value technique selected for the activity's WBS. BAC is computed from the project baseline.
EarnedValueLabor Units	double	X		The portion of the project baseline labor units that is actually completed as of the project data date. Computed as labor units earned value = project baseline labor units * performance % complete. The method for



				computing performance % complete depends on the earned-value technique selected for the activity's WBS. The BL labor units is taken from the project baseline.
EstimateAtCompletionCost	double	X		The estimated cost at completion for the activity. Computed as the actual total cost plus the estimate-to-complete cost; $EAC = ACWP + ETC$ . Note that the method for computing ETC depends on the earned-value technique selected for the activity's WBS.
EstimateAtCompletionLaborUnits	double	X		The estimated labor units at completion of the activity. Calculated as actual labor units + estimate to complete labor units. estimate to complete labor units is calculated based off of the earned value setting on the WBS.
EstimateToComplete	double	X		The estimated cost to complete the activity. Computed as either the remaining total cost for the activity (remaining total cost), or as $PF * (BAC - \text{earned value})$ , depending on the earned-value technique selected for the activity's WBS. BAC is computed from the project baseline.
EstimateToCompleteLaborUnits	double	X		The estimated quantity to complete the activity. Computed as either the remaining total units for the activity (remaining total units), or as $PF * (BL \text{ labor units} - \text{earned value})$ , depending on the earned-value technique selected for the activity's WBS.
ExpectedFinishDate	dateTime		X	The date the activity is expected to be finished according to the progress made on the activity's work products. The expected finish date is entered manually by people familiar with progress of the activity's work products.

ExpenseCost1Variance	double	X		The difference between primary baseline expense cost and at completion expense cost. Calculated as primary baseline expense cost - at completion expense cost (at completion expense cost = actual expense cost + remaining expense cost).
ExpenseCost2Variance	double	X		The difference between secondary baseline expense cost and at completion expense cost. Calculated as user's secondary baseline expense cost - at completion expense cost (at completion expense cost = actual expense cost + remaining expense cost).
ExpenseCost3Variance	double	X		The difference between tertiary baseline expense cost and at completion expense cost. Calculated as user's tertiary baseline expense cost - at completion expense cost (at completion expense cost = actual expense cost + remaining expense cost).
ExpenseCostPercentComplete	double	X		The percent complete of costs for all expenses associated with the activity. Computed as actual expense cost / at completion expense cost * 100. Always in the range 0 to 100.
ExpenseCostVariance	double	X		The difference between project baseline expense cost and at completion expense cost. Calculated as project baseline expense cost - at completion expense cost (at completion expense cost = actual expense cost + remaining expense cost).
ExternalEarlyStartDate	dateTime		X	The date value that determines the early start date for imported activities with external constraints lost (relations from/to external projects that do not exist in the database). This field is the

				relationship early finish date (REF) when the lost relationship type is FS or SS. When the relationship type is SF or FF, this field is calculated as REF - RD of the successor.
ExternalLateFinishDate	dateTime		X	The date value that determines the Late Finish Date for imported activities with external constraints lost (from/to external projects that do not exist in the database). This field is the relationship late finish date (RLF) when the lost relationship type is FS or FF. When the relationship type is SS or SF, this field is calculated as RLS + RD of the predecessor.
Feedback	string			The feedback from the resource.
FinancialPeriodTmpIld	int		X	The unique identifier of the financial period calendar assigned to the project.
FinishDate	dateTime			The current finish date of the activity. Set to the activity planned finish date while the activity is not started, the remaining finish date while the activity is in progress, and the actual finish date once the activity is completed.
FinishDate1Variance	double	X		The duration between the finish date in the current project and the primary baseline finish date. Calculated as finish date - primary baseline finish date.
FinishDate2Variance	double	X		The duration between the finish date in the current project and the finish date in the user's secondary baseline. Calculated as finish date - secondary baseline finish date.
FinishDate3Variance	double	X		The duration between the finish date in the current project and the finish date in the user's tertiary baseline. Calculated as finish date - tertiary baseline finish date.

FinishDateVariance	double	X		the duration between the finish date in the current project and the project baseline finish date. Calculated as finish date - project baseline finish date.
FloatPath	int	X	X	The integer representing the critical path this activity is on. The value 1 is the most critical path, value 2 is the second most critical path, etc.
FloatPathOrder	int	X	X	The integer representing the order in which this object was found on one of the critical paths.
FreeFloat	double	X	X	The amount of time the activity can be delayed before delaying the start date of any successor activity.
GUID	string restricted to pattern '\{[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}\}'		X	The globally unique ID generated by the system.
HasFutureBucketData	boolean	X		The flag that indicates whether a resource assignment on the activity has future bucket data.
Id	string restricted to maxLength(40)		X	The short ID that uniquely identifies the activity within the project.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsCritical	boolean	X		The flag that indicates whether the activity is critical. An activity is critical when its total Float is below the critical duration specified for the project. Delaying

				critical activities will delay the finish date of the project.
IsLongestPath	boolean	X	X	The flag that indicates whether an activity is on the longest path. Default = 'N'
IsNewFeedback	boolean		X	The flag that indicates that a resource has sent feedback notes about this activity which have not been reviewed yet.
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
IsWorkPackage	boolean	X	X	Indicates if this WBS is a workpackage in Primavera Cloud or not.
IsStarred	boolean			The boolean value indicating if this business object has been assigned a star in P6 Team Member
LaborCost1Variance	double	X		The difference between primary baseline labor cost and at completion labor cost. Calculated as BL labor cost - at completion labor cost
LaborCost2Variance	double	X		The difference between user's secondary baseline labor cost and at completion labor cost. Calculated as BL2 labor cost - at completion labor cost
LaborCost3Variance	double	X		The difference between user's tertiary baseline labor cost and at completion labor cost. Calculated as BL3 labor cost - at completion labor cost
LaborCostPercentComplete	double	X		The percent complete of costs for all labor resources assigned to the activity. Computed as actual labor cost / at completion labor cost * 100. Always in the range 0 to 100.
LaborCostVariance	double	X		The difference between project baseline labor cost and at completion labor cost. Calculated as BL labor cost - at completion

				labor cost
LaborUnits1Variance	double	X		The difference between primary baseline labor units and at completion labor units. Calculated as BL labor units - at completion labor units.
LaborUnits2Variance	double	X		The difference between user's secondary baseline labor units and at completion labor units. Calculated as BL2 labor units - at completion labor units.
LaborUnits3Variance	double	X		The difference between user's tertiary baseline labor units and at completion labor units. Calculated as BL3 labor units - at completion labor units.
LaborUnitsPercentComplete	double	X		The percent complete of units for all labor resources for the activity. Computed as actual labor units / at completion labor units * 100. Always in the range 0 to 100.
LaborUnitsVariance	double	X		The difference between project baseline labor units and at completion labor units. Calculated as BL labor units - at completion labor units.
LastUpdateDate	dateTime	X	X	The date this activity was last updated.
LastUpdateUser	string restricted to maxLength( 255)	X	X	The name of the user that last updated this activity.
LateFinishDate	dateTime	X	X	The latest possible date the activity must finish without delaying the project finish date. This date is computed by the project scheduler based on network logic, schedule constraints, and resource availability.

LateStartDate	dateTime	X	X	The latest possible date the remaining work for the activity must begin without delaying the project finish date. This date is computed by the project scheduler based on network logic, schedule constraints, and resource availability.
LevelingPriority	string restricted to 'Top' 'High' 'Normal' 'Low' 'Lowest'		X	The activity priority used to prioritize activities in a project when performing resource leveling. Valid values are 'Top', 'High', 'Normal', 'Low', and 'Lowest'.
LocationName	string restricted to maxLength( 100)	X	X	The name of the location assigned to the activity.
LocationObjectId	int		X	The unique ID of the location assigned to the activity.
MaterialCost1Variance	double	X		The primary Baseline Planned Material Cost minus the At Completion Material Cost.
MaterialCost2Variance	double	X		The user's secondary Baseline Planned Material Cost minus the At Completion Material Cost.
MaterialCost3Variance	double	X		The user's tertiary Baseline Planned Material Cost minus the At Completion Material Cost.
MaterialCostPercentComplete	double	X		The percent complete of costs for all material resources assigned to the activity. Computed as actual nonlabor cost / at completion nonlabor cost * 100. Always in the range 0 to 100.
MaterialCostVariance	double	X		The project BaselinePlannedMaterialCost minus the AtCompletionMaterialCost.

MaximumDuration	double restricted to minInclusive(0.0)		X	The maximum duration of the activity.
MinimumDuration	double restricted to minInclusive(0.0)		X	The minimum duration of the activity.
MostLikelyDuration	double restricted to minInclusive(0.0)		X	The most likely duration of the activity.
Name	string restricted to maxLength(120)		X	The name of the activity. The activity name does not have to be unique.
NonLaborCost1Variance	double	X		The difference between the primary baseline nonlabor cost and at completion nonlabor cost. Calculated as BL nonlabor cost - at completion nonlabor cost.
NonLaborCost2Variance	double	X		The difference between the user's secondary baseline nonlabor cost and at completion nonlabor cost. Calculated as BL2 nonlabor cost - at completion nonlabor cost.
NonLaborCost3Variance	double	X		The difference between the user's tertiary baseline nonlabor cost and at completion nonlabor cost. Calculated as BL3 nonlabor cost - at completion nonlabor cost.
NonLaborCostPercentComplete	double	X		The percent complete of costs for all nonlabor resources assigned to the activity. Computed as actual nonlabor cost / at completion nonlabor cost * 100. Always in the range 0 to 100.
NonLaborCostVariance	double	X		The difference between the project baseline labor cost and at completion labor cost. Calculated as BL nonlabor cost - at completion nonlabor cost.



NonLaborUnits1Variance	double	X		The difference between the primary baseline nonlabor units and at completion nonlabor units. Calculated as BL nonlabor units - at completion nonlabor units.
NonLaborUnits2Variance	double	X		The difference between the user's secondary baseline nonlabor units and at completion nonlabor units. Calculated as BL2 nonlabor units - at completion nonlabor units.
NonLaborUnits3Variance	double	X		The difference between the user's tertiary baseline nonlabor units and at completion nonlabor units. Calculated as BL3 nonlabor units - at completion nonlabor units.
NonLaborUnitsPercentComplete	double			The percent complete of units for all nonlabor resources for the activity. Computed as actual nonlabor units / at completion nonlabor units * 100. Always in the range 0 to 100.
NonLaborUnitsVariance	double	X		The difference between the project baseline labor units and at completion labor units. Calculated as BL nonlabor units - at completion nonlabor units.
NotesToResources	string			The notes from the project manager to the timesheet resources.
ObjectId	int		X	The unique ID generated by the system.
PercentComplete	double			The activity percent complete. This value is tied to the activity duration % complete, units % complete, or physical % complete, depending on the setting for the activity's percent complete type, which is one of Duration, Units, or Physical. Always in the range 0 to 100.

PercentCompleteType	string restricted to 'Physical' 'Duration' 'Units' 'Scope'		X	The activity percent complete type: 'Physical', 'Duration', 'Units', or 'Scope'. 'Scope' is only a valid option when P6 is integrated with Oracle Primavera Cloud for scope management.
PerformancePercentComplete	double	X		The activity performance percent complete. The performance percent complete is used to compute earned value and may be based on the activity % complete, on the 0/100 rule, on the 50/50 rule, etc., depending on the technique for computing earned-value percent complete for the activity's WBS. The performance % complete specifies what percentage of the activity's planned worth has been earned so far.
PerformancePercentCompleteByLaborUnits	double	X		The performance percent complete for the activity according to the labor units. Computed as Earned Value Labor Units divided by Budget at Completion (Labor Units) multiplied by 100.
PhysicalPercentComplete	double			The physical percent complete, which can either be user entered or calculated from the activity's weighted steps.
PlannedDuration	double restricted to minInclusive(0.0)		X	The total working time from the activity planned start date to the planned finish date. The planned working time is computed using the activity's calendar. This field is named OriginalDuration in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.

PlannedExpenseCost	double	X		The planned costs for all project expenses associated with the activity. This field is named BudgetedExpenseCost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
PlannedFinishDate	dateTime		X	The date the activity is scheduled to finish. This date is computed by the project scheduler but can be updated manually by the project manager. This date is not changed by the project scheduler after the activity has been started.
PlannedLaborCost	double			The planned costs for all labor resources assigned to the activity. If no resources are assigned, computed as the activity planned labor units * project default price / time. This field is named BudgetedLaborCost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
PlannedLaborUnits	double		X	The planned units for all labor resources assigned to the activity. This field is named BudgetedLaborUnits in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
PlannedMaterialCost	double	X		The sum of all material resource costs.
PlannedNonLaborCost	double			The planned costs for all nonlabor resources assigned to the activity. If no resources are assigned, computed as the activity planned nonlabor units * project default price / time. This field is named BudgetedNonLaborCost in Primavera's Engineering & Construction and Maintenance &

				Turnaround solutions.
PlannedNonLaborUnits	double		X	The planned units for all nonlabor resources assigned to the activity. This field is named BudgetedNonLaborUnits in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
PlannedStartDate	dateTime		X	The date the activity is scheduled to begin. This date is computed by the project scheduler but can be updated manually by the project manager. This date is not changed by the project scheduler after the activity has been started.
PlannedTotalCost	double	X		The planned total cost for the activity, including labor resources, nonlabor resources, and project expenses. Planned total cost = planned labor cost + planned nonlabor cost + planned material cost + planned expense cost. This field is named BudgetedTotalCost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
PlannedTotalUnits	double	X		the sum of Planned Labor Units and Planned Nonlabor Units. This field is named BudgetedTotalUnits in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
PlannedValueCost	double	X		The portion of the project baseline total cost of the activity that is scheduled to be completed as of the project data date. Computed as BAC * schedule % complete. Also known as the work scheduled to be performed for the activity. The schedule % complete

				specifies how much of the activity's project baseline duration has been completed so far. BAC is computed from the project baseline.
PlannedValueLaborUnits	double	X		The portion of the project baseline labor units that is scheduled to be completed as of the project data date. Computed as BL labor units * schedule % complete. The schedule % complete specifies how much of the activity's project baseline duration has been completed so far. BL labor units is taken from the project baseline.
PostRespCriticalityIndex	double	X	x	The Post Response Criticality Index calculated by Oracle Primavera Cloud during quantitative risk analysis.
PostResponsePessimisticFinish	dateTime		X	The Post Response Pessimistic Finish date calculated by Oracle Primavera Cloud during quantitative risk analysis.
PostResponsePessimisticStart	dateTime		X	The Post Response Pessimistic Start date calculated by Oracle Primavera Cloud during quantitative risk analysis.
PreRespCriticalityIndex	double	X	X	The Pre Response Criticality Index calculated by Oracle Primavera Cloud during quantitative risk analysis.

PreResponsePessimisticFinish	dateTime		X	The Pre Response Pessimistic Finish date calculated by Oracle Primavera Cloud during quantitative risk analysis.
PreResponsePessimisticStart	dateTime		X	The Pre Response Pessimistic Start date calculated by Oracle Primavera Cloud during quantitative risk analysis.
PrimaryConstraintDate	dateTime		X	The constraint date for the activity, if the activity has a constraint. The activity's constraint type determines whether this is a start date or finish date. Activity constraints are used by the project scheduler.
PrimaryConstraintType	string restricted to " 'Start On' 'Start On or Before' 'Start On or After' 'Finish On' 'Finish On or Before' 'Finish On or After' 'As Late As Possible' 'Mandatory Start' 'Mandatory Finish'		X	The type of constraint applied to the activity start or finish date. Activity constraints are used by the project scheduler. Start date constraints are 'Start On', 'Start On or Before', and 'Start On or After'. Finish date constraints are 'Finish On', 'Finish On or Before', and 'Finish On or After'. Another type of constraint, 'As Late As Possible', schedules the activity as late as possible based on the available free float.
PrimaryResourceId	string restricted to maxLength(255)	X	X	The name of the resource.

PrimaryResourceName	string restricted to maxLength(255)	X	X	The name of the resource.
PrimaryResourceObjectId	int		X	The unique ID of the primary resource for the activity. The primary resource is responsible for the overall work on the activity and updates the activity status using Timesheets.
ProjectFlag	string	X	X	Indicates if this WBS node is a Project/EPS node.
ProjectId	string	X	X	The short code of the associated project.
ProjectName	string	X	X	The name of the associated project.
ProjectNameSepChar	string	X		The character used to differentiate levels of a project or WBS structure when exporting to CPP format.
ProjectObjectId	int		X	The unique ID of the associated project.

ProjectProjectFlag	string	X	X	Indicates if this Project/EPS nose is a Project or EPS.
RemainingDuration	double restricted to minInclusive(0.0)		X	The remaining duration of the activity. Remaining duration is the total working time from the activity remaining start date to the remaining finish date. The remaining working time is computed using the activity's calendar. Before the activity is started, the remaining duration is the same as the planned duration. After the activity is completed the remaining duration is zero.
RemainingEarlyFinishDate	dateTime		X	The remaining late end date, which is calculated by the scheduler.
RemainingEarlyStartDate	dateTime		X	The date the remaining work for the activity is scheduled to begin. This date is computed by the project scheduler but can be updated manually by the project manager. Before the activity is started, the remaining start date is the same as the planned start date. This is the start date that Timesheets users follow.
RemainingExpenseCost	double	X		The remaining costs for all project expenses associated with the activity.



RemainingFloat	double	X		The amount of time remaining by which the activity can be delayed before delaying the project finish date. Computed as late finish - remaining finish. If the remaining finish is the same as the early finish (in general, when the activity is not started), then the remaining float is the same as the total float.
RemainingLaborCost	double			The remaining costs for all labor resources assigned to the activity. If no resources are assigned, computed as the activity remaining labor units * project default price / time.
RemainingLaborUnits	double		X	The remaining units for all labor resources assigned to the activity. The remaining units reflects the work remaining to be done for the activity. Before the activity is started, the remaining units are the same as the planned units. After the activity is completed, the remaining units are zero.
RemainingLateFinishDate	dateTime		X	the remaining late finish date calculated by the scheduler.
RemainingLateStartDate	dateTime		X	the remaining late start date calculated by the scheduler.
RemainingMaterialCost	double	X		The sum of all material resource remaining costs.

RemainingNonLaborCost	double			The remaining costs for all nonlabor resources assigned to the activity. If no resources are assigned, computed as the activity remaining nonlabor units * project default price / time.
RemainingNonLaborUnits	double		X	The remaining units for all nonlabor resources assigned to the activity. The remaining units reflects the work remaining to be done for the activity. Before the activity is started, the remaining units are the same as the planned units. After the activity is completed, the remaining units are zero.
RemainingTotalCost	double	X		The remaining total cost for the activity, including labor resources, nonlabor resources, and project expenses. Remaining total cost = remaining labor costs + remaining nonlabor costs + remaining expense costs.
RemainingTotalUnits	double	X	X	the sum of Remaining Labor Units and Remaining Nonlabor Units.
ResumeDate	dateTime		X	The date when a suspended task or resource dependent activity should be resumed. The resume date must be later than the suspend date and earlier than the actual finish date. The Suspend/Resume period behaves like a nonworktime on the activity calendar or resource calendar for task and resource dependent activities.

ReviewFinishDate	dateTime	X	X	The finish date of the activity as proposed by the primary resource using Timesheets, while the activity is in "For Review" state. If the project manager approves the activity completion, the review finish is copied to the actual finish.
ReviewRequired	boolean		X	The indicator that determines whether the activity status updates made in Team Member interfaces must be approved before committing changes.
ReviewStatus	string restricted to 'OK' 'For Review' 'Rejected'		X	The activity review status. Valid values are 'OK', 'For Review', and 'Rejected'. Primary resources set the status to 'For Review' when they believe the activity is completed but are not allowed to mark activities as completed.
SchedulePercentComplete	double	X		The activity schedule percent complete, which specifies how much of the activity's project baseline duration has been completed so far. Computed based on where the current data date falls relative to the activity's project baseline start and finish dates. If the data date is earlier than the BL start, the schedule % complete is 0. If the data date is later than the BL finish, the schedule % complete is 100. The schedule % complete indicates how much of the activity duration should be currently completed, relative to the selected project baseline.
SchedulePerformanceIndex	double	X		The ratio of the earned value of work performed and the work scheduled to be performed. Computed as $SPI = \text{earned value} / \text{planned value}$ . A value less than 1 indicates that less work was actually performed than was

				scheduled.
SchedulePerformanceIndexLaborUnits	double	X		The ratio of the earned value of labor units and the planned value of labor units. Computed as SPI labor units = earned value labor units / planned value labor units.
ScheduleVariance	double	X		The difference between the earned value of work performed and the work scheduled to be performed. Computed as SV = earned value - planned value. A negative value indicates that less work was actually performed than was scheduled.
ScheduleVarianceIndex	double	X		The ratio of the schedule variance and the work scheduled to be performed. Computed as SVI = SV / planned value.
ScheduleVarianceIndexLaborUnits	double	X		The ratio of the schedule variance and the work scheduled to be performed. Computed as SVI labor units = SV labor units / planned value labor units.
ScheduleVarianceLaborUnits	double	X		The difference between the earned value of work performed and the work scheduled to be performed. Computed as SV labor units = earned value labor units - planned value labor units.
ScopePercentComplete	double			The percent complete for the activity if the percent complete type is set to scope. Scope is calculated in Oracle Primavera Cloud when P6 is integrated with Oracle Primavera Cloud for scope

				management.
SecondaryConstraintDate	dateTime		X	The date to be used for the cstr_type2 assignment, if the activity has a cstr_type2 value. The activity's constraint type determines whether this is a start date or finish date. Activity constraints are used by the project scheduler.
SecondaryConstraintType	string restricted to " 'Start On' 'Start On or Before' 'Start On or After' 'Finish On or Before' 'Finish On or After' 'As Late As Possible' 'Mandatory Start' 'Mandatory Finish'		X	The additional constraint to be used by the scheduler. If more than one constraint is assigned, this value should be restricted to one of the following: "Start On or Before", "Start On or After", "Finish On or Before", or "Finish On or After".
StartDate	dateTime			The start date of the activity. Set to the remaining start date until the activity is started, then set to the actual start date.

StartDate1Variance	double	X		The duration between the start date in the current project and the primary baseline start date. Calculated as start date - primary baseline start date.
StartDate2Variance	double	X		The duration between the start date in the current project and the user's secondary baseline start date. Calculated as start date - secondary baseline start date.
StartDate3Variance	double	X		The duration between the start date in the current project and the user's tertiary baseline start date. Calculated as start date - tertiary baseline start date.
StartDateVariance	double	X		The duration between the start date in the current project and the project baseline start date. Calculated as start date - project baseline start date.
Status	string restricted to 'Not Started' 'In Progress' 'Completed'		X	The current status of the activity, either 'Not Started', 'In Progress', or 'Completed'.
StatusCode	string restricted to 'Planned' 'Active' 'Inactive' 'What-if' 'Requested' 'Templated'	X	X	The project status, either 'Planned', 'Active', 'Inactive', 'What-If', 'Requested', or 'Templated'.

SuspendDate	dateTime		X	The start date when the progress of a task or resource dependent activity is delayed from. The suspend date must be later than the actual start date, which the activity must have. The progress of the activity can be resumed by setting the resume date. The Suspend/Resume period behaves like a nonworktime on the activity calendar or resource calendar for task and resource dependent activities.
TaskStatusCompletion	string restricted to: 'BOTH_NOT_COMPLETE' 'TASKS_COMPLETE_ACTIVITY_NOT' 'ACTIVITY_COMPLETE_TASKS_NOT' 'BOTH_COMPLETE' 'NO_TASKS'		X	The completion status of tasks and activities from an integrated Oracle Primavera Cloud project used for lean scheduling. 'BOTH_NOT_COMPLETE' indicates that the activity and all associated tasks are not completed. 'TASKS_COMPLETE_ACTIVITY_NOT' indicates that the activity is not complete but all associated tasks are completed. 'ACTIVITY_COMPLETE_TASKS_NOT' indicates that the activity is complete but all assigned tasks are not completed. 'BOTH_COMPLETE' indicates that the activity and all assigned tasks are completed. If there are no tasks assigned to the activity, this field shows 'NO_TASKS'.

TaskStatusDates	string restricted to: 'AT_LEAST _ONE_OUT SIDE' 'ALL_WITHI N' 'NO_TASK_ DATES'		X	The date status of tasks and activities from an integrated Oracle Primavera Cloud project used for lean scheduling. 'AT_LEAST_ONE_OUTSIDE' indicates that one or more tasks has a start date earlier than the activity start date, and/or a due date or completed date later than the activity finish date. 'ALL_WITHIN' indicates that no tasks assigned to the activity have start dates earlier than the activity start date, nor due dates or completed dates later than the activity finish date. If there are no tasks assigned to the activity, this field shows 'NO_TASK_DATES'.
TaskStatusIndicator	boolean		X	An indicator that determines whether any of the following conditions is true: The task dates are outside of the activity dates, all of the tasks assigned to an activity are complete, but the activity is not complete, or the activity is complete but all of its assigned tasks are not complete.
ToCompletePerformanceIndex	double	X		The TCPI, which is calculated as (budget at completion - earned value) / (estimate at completion - ACWP).
TotalCost1Variance	double	X		The difference between the primary baseline total cost and the at completion total cost. Calculated as BL total cost - at completion total cost.
TotalCost2Variance	double	X		The difference between the user's secondary baseline total cost and the at completion total cost. Calculated as BL2 total cost - at completion total cost.



TotalCost3Variance	double	X		The difference between the user's tertiary baseline total cost and the at completion total cost. Calculated as BL3 total cost - at completion total cost.
TotalCostVariance	double	X		The difference between the project baseline total cost and the at completion total cost. Calculated as BL total cost - at completion total cost.
TotalFloat	double	X	X	The amount of time the activity can be delayed before delaying the project finish date. Total float can be computed as late start - early start or as late finish - early finish; this option can be set when running the project scheduler.
TotalPastPeriodEarnedValueCostBCWP	double			The total stored period earned value cost for each activity.
TotalPastPeriodEarnedValueLaborUnits	double			The total stored period earned value labor units for each activity.
TotalPastPeriodExpenseCost	double			The total stored period expense cost for each activity.
TotalPastPeriodLaborCost	double			The total stored period labor cost for each activity.

TotalPastPeriodLaborUnits	double			The total stored period labor units for each activity.
TotalPastPeriodMaterialCost	double			The total stored period material cost for each activity.
TotalPastPeriodNonLaborCost	double			The total stored period non labor cost for each activity.
TotalPastPeriodNonLaborUnits	double			The total stored period non labor units for each activity.
TotalPastPeriodPlannedValueCost	double			The total stored period planned value cost for each activity.
TotalPastPeriodPlannedValueLaborUnits	double			The total stored period planned value labor units for each activity.

Type	string restricted to 'Task Dependent' 'Resource Dependent' 'Level of Effort' 'Start Milestone' 'Finish Milestone' 'WBS Summary'		X	The type of activity, either 'Task Dependent', 'Resource Dependent', 'Level of Effort', 'Start Milestone', 'Finish Milestone', or 'WBS Summary'. A 'Task Dependent' activity is scheduled using the activity's calendar rather than the calendars of the assigned resources. A 'Resource Dependent' activity is scheduled using the calendars of the assigned resources. This type is used when several resources are assigned to the activity, but they may work separately. A 'Start Milestone' or 'Finish Milestone' is a zero-duration activity without resources, marking a significant project event. A 'Level of Effort' activity has a duration that is determined by its dependent activities. Administration-type activities are typically 'Level of Effort'. A 'WBS Summary' comprises a group of activities that share a common WBS level. For example, all activities whose WBS codes start with A (A.1, A.1.1, A.1.1.2, A.2, A.3 and so forth) can be part of one WBS activity whose WBS code is A.
UnitsPercentComplete	double			The percent complete of units for all labor and nonlabor resources assigned to the activity. Computed as actual units / at completion units * 100. Always in the range 0 to 100.
UnreadCommentCount	int	X		The number of Team Member Discussion comments associated with the Activity which have not yet been read.

WBSCode	string restricted to maxLength( 40)	X	X	The short code assigned to each WBS element for identification. Each WBS element is uniquely identified by concatenating its own code together with its parents' codes.
WBSName	string restricted to maxLength( 100)	X	X	The name of the WBS element.
WBSNamePath	string	X		The hierarchy of the parent WBS Names. WBS Names are listed in order from parent to child and hierarchical levels are separated by dots. For example: WBS_Name_1A.WBS_Name_2A. WBS_Name_3A
WBSObjectld	int		X	The unique ID of the WBS for the activity.
WBSPath	string			The WBS hierarchy of the activity.
WorkPackageId	string		X	The ID of the work package associated with an activity when P6 is integrated with Oracle Primavera Cloud for scope management.
WorkPackageName	string		X	The name of the work package associated with an activity when P6 is integrated with Oracle Primavera Cloud for scope management.

## ActivityCodeAssignment Service

### Operations:

- CreateActivityCodeAssignments Operation** (on page 85)
- ReadActivityCodeAssignments Operation** (on page 86)
- UpdateActivityCodeAssignments Operation** (on page 86)
- DeleteActivityCodeAssignments Operation** (on page 87)
- GetFieldLengthActivityCodeAssignment Operation** (on page 87)

### WSDL: ActivityCodeAssignment.wsdl

Primary Key Field: A multi-part key comprised of the following elements:

- ▶ ActivityObjectId
- ▶ ActivityCodeTypeObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityCodeAssignment/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/ActivityCodeAssignmentService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/ActivityCodeAssignmentService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.activitycodeassignment.ActivityCodeAssignmentService`

### Description:

An activity code assignment business object represents the assignment of an activity code to an activity. For each activity code type, an activity may have zero or one activity codes assigned.

Note that this business object has a multi-part object ID; its object ID is a combination of its activity object ID and its activity code object ID.

## CreateActivityCodeAssignments Operation

Description: Creates multiple ActivityCodeAssignment objects in the database. You can create up to 1000 ActivityCodeAssignment objects with a single call.

**Service:** *ActivityCodeAssignment Service* (on page 85)

Style: Document/literal wrapped

Input:

Message: CreateActivityCodeAssignments

Elements: ActivityCodeAssignment elements that contain **ActivityCodeAssignment Fields** (on page 87) fields

Required fields:

- ▶ ActivityObjectId
- ▶ ActivityCodeObjectId

Output:

Message: CreateActivityCodeAssignmentsResponse

Output: A collection of zero to many ObjectId elements containing fields that comprise the primary key.

## ReadActivityCodeAssignments Operation

Description: Reads ActivityCodeAssignment objects from the database.

**Service:** *ActivityCodeAssignment Service (on page 85)*

Style: Document/literal wrapped

Input:

Message: ReadActivityCodeAssignments

Elements: One to many field names from the **ActivityCodeAssignment Fields** (on page 87) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityCodeAssignmentsResponse

Output: Zero to many ActivityCodeAssignment elements that contain ActivityCodeAssignment fields.

## UpdateActivityCodeAssignments Operation

Description: Updates multiple ActivityCodeAssignment objects in the database. You can update up to 1000 ActivityCodeAssignment objects with a single call.

**Service:** *ActivityCodeAssignment Service (on page 85)*

Style: Document/literal wrapped

Input:

Message: UpdateActivityCodeAssignments

Elements: ActivityCodeAssignment elements that contain **ActivityCodeAssignment Fields** (on page 87) fields

Required fields: You must supply both the ActivityCodeObjectId and ActivityObjectId fields when you use the UpdateActivityCodeAssignments operation. All other fields are optional.

Output:

Message: UpdateActivityCodeAssignmentsResponse

Output: boolean

### DeleteActivityCodeAssignments Operation

Description: Deletes multiple ActivityCodeAssignment objects in the database. You can delete up to 1000 ActivityCodeAssignment objects with a single call.

**Service:** *ActivityCodeAssignment Service (on page 85)*

Style: Document/literal wrapped

Input:

Message: DeleteActivityCodeAssignments

Elements: One to many ObjectId elements

Output:

Message: DeleteActivityCodeAssignmentsResponse

Output: boolean

### GetFieldLengthActivityCodeAssignment Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityCodeAssignment Service (on page 85)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityCodeAssignment

Elements: FieldLength

Output:

Message: GetFieldLengthActivityCodeAssignmentResponse

Elements: One to many FieldLengthActivityCodeAssignments.

### ActivityCodeAssignment Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityCode Description	string restricted to maxLength(120)	X	X	The description of the associated activity code.
ActivityCode ObjectID	int		X	The unique ID of the associated

				activity code.
ActivityCode TypeName	string restricted to maxLength(4 0)	X	X	The name of the parent activity code type.
ActivityCode TypeObjectId	int	X	X	The unique ID of the parent activity code type.
ActivityCode TypeScope	string restricted to 'Global' 'EPS' 'Project'	X	X	The scope of the associated activity code type: Global, EPS, or Project. An activity code with Global scope can be assigned to any activity. An activity code with EPS scope can be assigned only to an activity within a project under that particular EPS. Similarly, an activity code with Project scope can be assigned only to an activity within that particular project.
ActivityCode Value	string restricted to maxLength(6 0)	X	X	The value of the associated activity code.
ActivityId	string restricted to maxLength(4 0)	X	X	The short ID that uniquely identifies the activity to which the activity code is assigned.
ActivityName	string restricted to maxLength(1 20)	X	X	The name of the activity to which the activity code is assigned.



ActivityObjec tId	int		X	The unique ID of the activity to which the activity code is assigned.
CreateDate	dateTime	X	X	The date this code assignment was created.
CreateUser	string restricted to maxLength(2 55)	X	X	The name of the user that created this code assignment.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateD ate	dateTime	X	X	The date this code assignment was last updated.
LastUpdateU ser	string restricted to maxLength(2 55)	X	X	The name of the user that last updated this code assignment.
ProjectId	string	X	X	The short code of the associated project.
ProjectObjec tId	int	X	X	The unique ID of the associated project.
WBSObjectl d	int	X	X	The unique ID of the WBS for the associated activity.

## ActivityComment Service

### Operations:

**CreateActivityComments Operation** (on page 90)

**ReadActivityComments Operation** (on page 91)

**GetFieldLengthActivityComment Operation** (on page 91)

### WSDL: ActivityComment.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityComment/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ActivityCommentService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ActivityCommentService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.activitycomment.ActivityCommentService`

### Description:

An activity comment business object represents a comment made on an activity.

## CreateActivityComments Operation

Description: Creates multiple ActivityComment objects in the database. You can create up to 1000 ActivityComment objects with a single call.

**Service:** *ActivityComment Service* (on page 90)

Style: Document/literal wrapped

Input:

Message: CreateActivityComments

Elements: ActivityComment elements that contain **ActivityComment Fields** (on page 91) fields

Required fields: The following fields are required when creating the ActivityComment object:

- ▶ ActivityObjectId
- ▶ UserObjectId
- ▶ CommentText

Output:

Message: CreateActivityCommentsResponse

Output: Zero to many ObjectIds

## ReadActivityComments Operation

Description: Reads ActivityComment objects from the database.

**Service:** *ActivityComment Service (on page 90)*

Style: Document/literal wrapped

Input:

Message: ReadActivityComments

Elements: One to many fields from the **ActivityComment Fields** (on page 91) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityCommentsResponse

Output: Zero to many ActivityComment elements that contain ActivityComment fields.

## GetFieldLengthActivityComment Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityComment Service (on page 90)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityComment

Elements: FieldLength

Output:

Message: GetFieldLengthActivityCommentResponse

Elements: One to many FieldLengthActivityComments.

## ActivityComment Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityObjectid	int		X	The unique ID of the activity to which this comment is added.

CommentDate	dateTime		X	The date on which this comment was added.
CommentText	string restricted to maxLength(4000)			The comment.
CreateDate	dateTime	X	X	The date this comment was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this comment.
DeleteDate	dateTime			The date this comment was deleted.
DeleteUser	string restricted to maxLength(255)			The name of the user that deleted this comment.
LastUpdateDate	dateTime	X	X	The date this comment was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this comment.
ObjectId	int		X	The unique ID generated by the system.
PersonalName	string	X	X	The commented user's personal or actual name.
ProjectObjectId	int	X	X	The unique ID of the project to which the activity associated with the comment belongs.

ReadFlag	boolean			The flag that identifies whether a comment is read by a particular user.
TimeDiff	string	X		This field gives the time difference between current and createdate.
UserObjectld	int		X	The unique ID of the user who added this comment.

## ActivityExpense Service

### Operations:

**CreateActivityExpenses Operation** (on page 94)

**ReadActivityExpenses Operation** (on page 94)

**UpdateActivityExpenses Operation** (on page 95)

**DeleteActivityExpenses Operation** (on page 95)

**ReadAllActivityExpensesByWBS Operation** (on page 96)

**GetFieldLengthActivityExpense Operation** (on page 95)

### WSDL: ActivityExpense.wsdl

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityExpense/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ActivityExpenseService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ActivityExpenseService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.activityexpense.ActivityExpenseService`

### Description:

Activity expenses are non-resource costs associated with a project and assigned to a project's activities. They are typically one-time expenditures for non-reusable items. Examples of expenses include materials, facilities, travel, overhead, and training.

You can categorize expenses, indicate a unit of measure for expenses, and specify whether an expense accrues at the start or end of an activity or uniformly over its duration. Each expense has a planned cost, actual cost, and estimated remaining cost.

Expenses are not the same as resources. Resources are time-based and generally extend across multiple activities and/or multiple projects. Examples of resources are personnel and equipment. Unlike resources, expenses are project-specific and they are not time-based. Expenses are not included when resources are leveled.

The ActivityExpense service supports user defined fields (UDFs). To assign UDFs to an activity expense, use the UDFValue service

### CreateActivityExpenses Operation

Description: Creates multiple ActivityExpense objects in the database. You can create up to 1000 ActivityExpense objects with a single call.

**Service:** *ActivityExpense Service (on page 93)*

Style: Document/literal wrapped

Input:

Message: CreateActivityExpenses

Elements: ActivityExpense elements that contain **ActivityExpense Fields** (on page 96) fields

Required fields:

- ▶ Expenseltem
- ▶ ActivityObjectId

Output:

Message: CreateActivityExpensesResponse

Output: Zero to many ObjectId elements

### ReadActivityExpenses Operation

Description: Reads ActivityExpense objects from the database.

**Service:** *ActivityExpense Service (on page 93)*

Style: Document/literal wrapped

Input:

Message: ReadActivityExpenses

Elements: One to many field names from the **ActivityExpense Fields** (on page 96) field list  
You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityExpensesResponse

Output: Zero to many ActivityExpense elements that contain **ActivityExpense Fields** (on page 96) fields.

### UpdateActivityExpenses Operation

Description: Updates multiple ActivityExpense objects in the database. You can update up to 1000 ActivityExpense objects with a single call.

**Service:** *ActivityExpense Service (on page 93)*

Style: Document/literal wrapped

Input:

Message: UpdateActivityExpenses

Elements: ActivityExpense elements that contain **ActivityExpense Fields** (on page 96) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateActivityExpensesResponse

Output: boolean

### DeleteActivityExpenses Operation

Description: Deletes multiple ActivityExpense objects in the database. You can delete up to 1000 ActivityExpense objects with a single call.

**Service:** *ActivityExpense Service (on page 93)*

Style: Document/literal wrapped

Input:

Message: DeleteActivityExpenses

Elements: One to many ObjectId elements

Output:

Message: DeleteActivityExpensesResponse

Output: boolean

### GetFieldLengthActivityExpense Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityExpense Service (on page 93)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityExpense

Elements: FieldLength

Output:

Message: GetFieldLengthActivityExpenseResponse  
 Elements: One to many FieldLengthActivityExpenses.

### ReadAllActivityExpensesByWBS Operation

Description: Reads ActivityExpense objects from the database.

**Service:** *ActivityExpense Service (on page 93)*

Style: Document/literal wrapped

Input:

Message: ReadAllActivityExpensesByWBS

Elements:

- ▶ One WBSObjectId element
- ▶ One to many field names from the **ActivityExpense Fields** (on page 96) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadAllActivityExpensesByWBSResponse

Output: Zero to many ActivityExpense elements that contain **ActivityExpense Fields** (on page 96) fields.

### ActivityExpense Fields

Field	Type	Read Only	Filterable Orderable	Description
AccrualType	string restricted to 'Start of Activity' 'End of Activity' 'Uniform Over Activity'		X	The accrual type for the project expense. If the accrual type is 'Start of Activity', the entire expense costs are accrued at the start date of the activity. If the accrual type is 'End of Activity', the entire expense costs are accrued at the finish date



				of the activity. If the accrual type is 'Uniform over Activity', the expense costs are accrued uniformly over the duration of the activity.
ActivityId	string restricted to maxLength(40)	X	X	The short ID that uniquely identifies the activity within the project.
ActivityName	string restricted to maxLength(120)	X	X	The name of the activity. The activity name does not have to be unique.
ActivityObjectId	int		X	The unique ID of the activity to which the project expense is linked. Every project expense is associated with one activity in the project.
ActualCost	double		X	The actual cost for the project expense.
ActualUnits	double			The actual units for the project expense.
AtCompletionCost	double	X		The sum of the actual plus remaining costs for the project expense. Computed as actual cost + remaining cost.
AtCompletionUnits	double	X		The at completion units for the project expense.

AutoComputeActuals	boolean		X	The flag that identifies whether the actual and remaining costs for the expense are computed automatically using the planned cost and the activity's schedule percent complete. If this option is selected, the actual/remaining costs are automatically updated when project actuals are applied. This assumes the expenses are made according to plan.
CBSCode	string	X		CBS Code.
CBSId	int		X	The unique Id of CBS.
CostAccountId	string restricted to maxLength(40)	X	X	The id of associated cost account.
CostAccountName	string restricted to maxLength(100)	X	X	The name of the associated cost account.
CostAccountObjectId	int		X	The unique ID of the cost account associated with the project expense.
CreateDate	dateTime	X	X	The date this expense was created.

CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this expense.
DocumentNumber	string restricted to maxLength(32)		X	The document number for the expense. Use this for the purchase order number, invoice number, requisition number, or similar, as needed.
ExpenseCategoryName	string restricted to maxLength(36)	X	X	The name of the expense category.
ExpenseCategoryId	int		X	The unique ID of the expense category for the project expense.
ExpenseDescription	string			The description of the expense.
ExpenseItem	string restricted to maxLength(120)		X	The name of the project expense.
ExpensePercentComplete	double			The percent complete of the project expense.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.

LastUpdateDate	dateTime	X	X	The date this expense was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this expense.
ObjectId	int		X	The unique ID generated by the system.
OverBudget	boolean	X		The indicator that reflects whether the project expense is over budget. An expense is over budget when the actual cost + remaining cost exceeds the planned cost.
PlannedCost	double		X	The planned cost for the project expense. This field is named BudgetedCost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
PlannedUnits	double		X	The planned number of units for the project expense. This number is multiplied by the price per unit to compute the planned cost. This field is named BudgetedUnits in Primavera's Engineering &

				Construction and Maintenance & Turnaround solutions.
PricePerUnit	double		X	The planned price per unit for the project expense. This number is multiplied by the planned number of units to compute the planned cost.
ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the project.
ProjectObjectId	int	X	X	The unique ID of the associated project.
RemainingCost	double		X	The remaining cost for the project expense. Before actual expenses are made, remaining cost should be the same as planned cost. While the activity is in progress, the remaining cost should be updated to reflect the estimated remaining cost required for the expense. After the expense is completed, the remaining cost should be zero.
RemainingUnits	double			The remaining units for the project expense.

UnitOfMeasure	string restricted to maxLength(30)		X	The unit of measure for the project expense.
Vendor	string restricted to maxLength(100)		X	The name of the vendor providing the product or service associated with the expense.
WBSObjectID	int	X	X	The unique ID of the WBS for the activity.

## ActivityFilter Service

### Operations:

**CreateActivityFilters Operation** (on page 102)

**ReadActivityFilters Operation** (on page 103)

**UpdateActivityFilters Operation** (on page 103)

**DeleteActivityFilters Operation** (on page 104)

**GetFieldLengthActivityFilter Operation** (on page 104)

### WSDL: ActivityFilter.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityFilter/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ActivityFilterService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ActivityFilterService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.activityfilter.ActivityFilterService`

### Description:

An activity filter business object represents a filter made for an activity.

## CreateActivityFilters Operation

Description: Creates multiple ActivityFilter objects in the database. You can create up to 1000 ActivityFilter objects with a single call.

**Service: *ActivityFilter Service* (on page 102)**

Style: Document/literal wrapped

Input:

Message: CreateActivityFilters

Elements: ActivityFilter elements that contain **ActivityFilter Fields** (on page 104) fields

Required fields: The following fields are required when creating the ActivityFilter object:

- ▶ Name
- ▶ ActivityObjectId

Output:

Message: CreateActivityFiltersResponse

Output: Zero to many ObjectIds

**ReadActivityFilters Operation**

Description: Reads Activity objects from the database.

**Service: *ActivityFilter Service* (on page 102)**

Style: Document/literal wrapped

Input:

Message: ReadActivityFilters

Elements: One to many field names from the **ActivityFilter Fields** (on page 104) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityFiltersResponse

Output: Zero to many ActivityFilter elements that contain **ActivityFilter Fields** (on page 104) fields.

**UpdateActivityFilters Operation**

Description: Updates multiple ActivityFilter objects in the database. You can update up to 1000 ActivityFilter objects with a single call.

**Service: *ActivityFilter Service* (on page 102)**

Style: Document/literal wrapped

Input:

Message: UpdateActivityFilters

Elements: ActivityFilters elements that contain **ActivityFilter Fields** (on page 104) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateActivityFiltersResponse

Output: boolean

### DeleteActivityFilters Operation

Description: Deletes multiple ActivityFilter objects in the database. You can delete up to 1000 ActivityFilter objects with a single call.

**Service:** *ActivityFilter Service (on page 102)*

Style: Document/literal wrapped

Input:

Message: DeleteActivityFilters

Elements: One to many ObjectId elements

Output:

Message: DeleteActivityFiltersResponse

Output: boolean

### GetFieldLengthActivityFilter Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityFilter Service (on page 102)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityFilter

Elements: FieldLength

Output:

Message: GetFieldLengthActivityFilterResponse

Elements: One to many FieldLengthActivityFilters.

### ActivityFilter Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityFilterId	int		X	The unique ID generated by the system.



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ActivityFilter Name	string restricted to maxLength(4 0)	X	X	The name of the Activity Filter.
FilterCriteria	type	X		Filter criteria for Activity Filter.
FilterCriteria Config	string			The definition of the filter in JSON format.
FilterGroup	string			The filter group for the activity filter.

FilterType	string		X	<p>Determines whether the filter is for the EPS page in P6, Activities page in P6 or the My Activities page in P6 Team Member Web.</p> <p>Valid values are:          'VT_TMUSER_FILTER' (User Administration - Team Member Filter),          'VT_PROJ_FILTER_STAND' (EPS Standard Filter),          'VT_ASSGN_FILTER_STAND' (Assignments Standard Filter),          'VT_LWF_FILTER' (Activities Page Filter),          'VT_ASSGN_LWF_FILTER' (Assignments Page Filter),          'VT_PROJ_LWF_FILTER' (EPS Page Filter),          'VT_TM_ACT_FILTER' (Team Member Activities Filter),          'VT_TM_TS_FILTER' (Team Member Timesheet Filter)</p>
UserId	int		X	The ID of the user which created the filter.

## ActivityNote Service

### Operations:

- CreateActivityNotes Operation** (on page 107)
- ReadActivityNotes Operation** (on page 108)
- UpdateActivityNotes Operation** (on page 108)
- DeleteActivityNotes Operation** (on page 108)
- GetFieldLengthActivityNote Operation** (on page 109)

### WSDL: ActivityNote.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityNote/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/ActivityNoteService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/ActivityNoteService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.activitynote.ActivityNoteService`

### Description:

Use activity notes to specify one or more notes for an activity. You can specify one note on each activity for every notebook topic that exists. Notes can only be set as HTML.

## CreateActivityNotes Operation

Description: Creates multiple ActivityNote objects in the database. You can create up to 1000 ActivityNote objects with a single call.

**Service:** *ActivityNote Service* (on page 107)

Style: Document/literal wrapped

Input:

Message: CreateActivityNotes

Elements: ActivityNote elements that contain **ActivityNote Fields** (on page 109) fields

Required fields:

- ▶ ActivityObjectId
- ▶ NotebookTopicObjectId

Output:

Message: CreateActivityNotesResponse

Output: Zero to many ObjectId elements

## ReadActivityNotes Operation

Description: Reads ActivityNote objects from the database.

**Service:** *ActivityNote Service (on page 107)*

Style: Document/literal wrapped

Input:

Message: ReadActivityNotes

Elements: One to many field names from the **ActivityNote Fields** (on page 109) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityNotesResponse

Output: Zero to many ActivityNote elements that contain **ActivityNote Fields** (on page 109) fields.

## UpdateActivityNotes Operation

Description: Updates multiple ActivityNote objects in the database. You can update up to 1000 ActivityNote objects with a single call.

**Service:** *ActivityNote Service (on page 107)*

Style: Document/literal wrapped

Input:

Message: UpdateActivityNotes

Elements: ActivityNote elements that contain **ActivityNote Fields** (on page 109) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateActivityNotesResponse

Output: boolean

## DeleteActivityNotes Operation

Description: Deletes multiple ActivityNote objects in the database. You can delete up to 1000 ActivityNote objects with a single call.

**Service:** *ActivityNote Service (on page 107)*

Style: Document/literal wrapped

Input:

Message: DeleteActivityNotes

Elements: One to many ObjectID elements

Output:

Message: DeleteActivityNotesResponse

Output: boolean

### GetFieldLengthActivityNote Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityNote Service (on page 107)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityNote

Elements: FieldLength

Output:

Message: GetFieldLengthActivityNoteResponse

Elements: One to many FieldLengthActivityNotes.

### ActivityNote Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityId	string restricted to maxLength(40)	X	X	The short ID that uniquely identifies the activity to which the activity note is assigned.
ActivityName	string restricted to maxLength(120)	X	X	The name of the activity to which the activity note is assigned.
ActivityObjectID	int		X	The unique ID of the activity to which the activity note is assigned.
CreateDate	dateTime	X	X	The date this note was created.
CreateUser	string restricted to	X	X	The name of the user that created

	maxLength(255)			this note.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdate Date	dateTime	X	X	The date this note was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this note.
Note	string			The information that is associated with the notebook topic.
NotebookTopicName	string	X	X	The name of the associated notebook topic.
NotebookTopicObjectId	int		X	The unique ID of the associated notebook topic.
ObjectId	int		X	The unique ID generated by the system.
ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the associated project.
ProjectObjectId	int	X	X	The unique ID of the associated project.
RawTextNot	string	X		The information

e				that is associated with the notebook topic, without any HTML.
WBSObjectI d	int	X	X	The unique ID of the WBS for the activity.

## ActivityOwner Service

### Operations:

**CreateActivityOwners Operation** (on page 111)

**ReadActivityOwners Operation** (on page 112)

**UpdateActivityOwners Operation** (on page 112)

**DeleteActivityOwners Operation** (on page 113)

**GetFieldLengthActivityOwner Operation** (on page 113)

### WSDL: ActivityOwner.wsdl

Primary Key Field: ObjectI

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityOwner/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ActivityOwnerService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ActivityOwnerService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.activityowner.ActivityOwnerService`

### Description:

Activity owner objects provide a way to specify a user to be in charge of an activity for statusing in P6. Instead of assigning resources to activities, a user is able to assign a specific user to the activity. The activity owner, in conjunction with Contributor module access, gives users similar capabilities as a resource with Contributor module access.

Note that this business object has a multi-part object ID; its object ID is a combination of its activity object ID and its user object ID.

## CreateActivityOwners Operation

Description: Creates multiple ActivityOwner objects in the database. You can create up to 1000 ActivityOwner objects with a single call.

**Service:** *ActivityOwner Service (on page 111)*

Style: Document/literal wrapped

Input:

Message: CreateActivityOwners

Elements: ActivityOwner elements that contain **ActivityOwner Fields** (on page 113) fields

Required fields:

- ▶ ActivityObjectId
- ▶ UserObjectId

Output:

Message: CreateActivityOwnersResponse

Output: Zero to many ObjectIds

### ReadActivityOwners Operation

Description: Reads ActivityOwner objects from the database.

**Service:** *ActivityOwner Service (on page 111)*

Style: Document/literal wrapped

Input:

Message: ReadActivityOwners

Elements: One to many fields from the **ActivityOwner Fields** (on page 113) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityOwnersResponse

Output: Zero to many ActivityOwner elements that contain ActivityOwner fields.

### UpdateActivityOwners Operation

Description: Updates multiple ActivityOwner objects in the database. You can update up to 1000 ActivityOwner objects with a single call.

**Service:** *ActivityOwner Service (on page 111)*

Style: Document/literal wrapped

Input:

Message: UpdateActivityOwners

Elements: ActivityOwner elements that contain **ActivityOwner Fields** (on page 113) fields



Output:

Message: UpdateActivityOwnersResponse

Output: boolean

### DeleteActivityOwners Operation

Description: Deletes multiple ActivityOwner objects in the database. You can delete up to 1000 ActivityOwner objects with a single call.

**Service:** *ActivityOwner Service (on page 111)*

Style: Document/literal wrapped

Input:

Message: DeleteActivityOwners

Elements: One to many ObjectId elements

Output:

Message: DeleteActivityOwnersResponse

Output: boolean

### GetFieldLengthActivityOwner Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityOwner Service (on page 111)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityOwner

Elements: FieldLength

Output:

Message: GetFieldLengthActivityOwnerResponse

Elements: One to many FieldLengthActivityOwners.

### ActivityOwner Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityObjec tId	int		X	The unique ID of the associated activity.
CreateDate	dateTime	X	X	The date this activity owner was

				created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this activity owner.
IsActivityFlagged	boolean		F	The flag that indicates whether the owner of the activity has flagged the activity as important.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline.
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this activity owner was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this activity owner.
ProjectFlag	string	X	X	Indicates if this WBS node is a Project/EPS node.
ProjectObjectID	int	X	X	The unique ID of the associated project.
ProjectProjectFlag	string	X	X	Indicates if this Project/EPS node is a Project or EPS.

StatusCode	string	X	X	The project status, either 'Planned', 'Active', 'Inactive', 'What-If', 'Requested', or 'Template'.
UserObjectld	int		X	The unique ID of the associated user.

## ActivityPeriodActual Service

### Operations:

- CreateActivityPeriodActuals Operation** (on page 116)
- ReadActivityPeriodActuals Operation** (on page 117)
- UpdateActivityPeriodActuals Operation** (on page 117)
- DeleteActivityPeriodActuals Operation** (on page 117)
- GetFieldLengthActivityPeriodActual Operation** (on page 118)

### WSDL: ActivityPeriodActual.wsdl

Primary Key Field: A multi-part key comprised of the following elements:

- ▶ FinancialPeriodObjectld
- ▶ ActivityObjectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityPeriodActual/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ActivityPeriodActualService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/ActivityPeriodActualService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.activityperiodactual.ActivityPeriodActualService`

### Description:

Activity period actuals represent the actual values on an activity during a financial period.

The following rules apply to activity period actuals:

- ▶ They can be tracked only for in-progress or completed activities.
- ▶ Negative values are allowed.
- ▶ If both units and costs are simultaneously updated on a period actual instance, units are the driving value.
- ▶ There is no relation between the units and costs on a period actual instance

- ▶ They must have at least one non-zero field value for a corresponding database record to exist
- ▶ Costs can be calculated only when a project default price per unit is defined.
- ▶ Values for a particular resource type (labor, nonlabor, material) can be tracked at the activity level only if the activity has no resource assignments of the same type. If resource assignments exist, activity period actuals are derived from those assignments and cannot be edited.
- ▶ If assignments exist, activity period actual values (labor, non labor, material) are calculated from resource assignments of the corresponding type.
- ▶ For material resources, only ActualMaterialCost can be tracked.

Note that this business object has a multi-part object ID, which is a combination of its financial period object ID and its activity object ID.

### CreateActivityPeriodActuals Operation

Description: Creates multiple ActivityPeriodActual objects in the database. You can create up to 1000 ActivityPeriodActual objects with a single call.

**Service:** *ActivityPeriodActual Service* (on page 115)

Style: Document/literal wrapped

Input:

Message: CreateActivityPeriodActuals

Elements: ActivityPeriodActual elements that contain **ActivityPeriodActual Fields** (on page 118) fields

Required fields: The following fields are required when creating the ActivityPeriodActual object:

- ▶ ActivityObjectId
- ▶ FinancialPeriodObjectId

You must also supply at least one of the following fields:

- ▶ ActualLaborUnits
- ▶ ActualLaborCost
- ▶ ActualNonLaborUnits
- ▶ ActualNonLaborCost
- ▶ ActualExpenseCost
- ▶ EarnedValueCost
- ▶ EarnedValueLaborUnits
- ▶ PlannedValueCost
- ▶ PlannedValueLaborUnits

Output:

Message: CreateActivityPeriodActualsResponse

Output: A collection of zero to many ObjectId elements containing fields that comprise the primary key.

## ReadActivityPeriodActuals Operation

Description: Reads ActivityPeriodActual objects from the database.

**Service:** *ActivityPeriodActual Service (on page 115)*

Style: Document/literal wrapped

Input:

Message: ReadActivityPeriodActuals

Elements: One to many field names from the **ActivityPeriodActual Fields** (on page 118) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityPeriodActualsResponse

Output: Zero to many ActivityPeriodActual elements that contain **ActivityPeriodActual Fields** (on page 118) fields.

## UpdateActivityPeriodActuals Operation

Description: Updates multiple ActivityPeriodActual objects in the database. You can update up to 1000 ActivityPeriodActual objects with a single call.

**Service:** *ActivityPeriodActual Service (on page 115)*

Style: Document/literal wrapped

Input:

Message: UpdateActivityPeriodActuals

Elements: ActivityPeriodActual elements that contain **ActivityPeriodActual Fields** (on page 118) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateActivityPeriodActualsResponse

Output: boolean

## DeleteActivityPeriodActuals Operation

Description: Deletes multiple ActivityPeriodActual objects in the database. You can delete up to 1000 ActivityPeriodActual objects with a single call.

**Service:** *ActivityPeriodActual Service (on page 115)*

Style: Document/literal wrapped

Input:

Message: DeleteActivityPeriodActuals  
 Elements: One to many ObjectID elements

Output:

Message: DeleteActivityPeriodActualsResponse  
 Output: boolean

**GetFieldLengthActivityPeriodActual Operation**

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityPeriodActual Service (on page 115)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityPeriodActual  
 Elements: FieldLength

Output:

Message: GetFieldLengthActivityPeriodActualResponse  
 Elements: One to many FieldLengthActivityPeriodActuals.

**ActivityPeriodActual Fields**

Field	Type	Read Only	Filterable Orderable	Description
ActivityObjectID	int		X	The unique ID of the associated activity.
ActualExpenseCost	double		X	The actual expense cost on this activity during a financial period.
ActualLaborCost	double		X	The actual labor cost on this activity during a financial period.
ActualLaborUnits	double		X	The actual labor units on this activity during a financial period.

ActualMaterialCost	double	X	X	The actual material cost on this activity during a financial period.
ActualNonLaborCost	double		X	The actual nonlabor cost on this activity during a financial period.
ActualNonLaborUnits	double		X	The actual nonlabor units on this activity during a financial period.
CreateDate	dateTime	X	X	The date this activity period actual was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this activity period actual.
EarnedValueCost	double		X	The earned value cost on this activity during a financial period.
EarnedValueLaborUnits	double		X	The earned value labor units on this activity during a financial period.
FinancialPeriodObjectId	int		X	The unique ID of the associated financial period.
FinancialPeriodTemplateId	int		X	The id of the financial period template to which the financial period belongs.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this activity period actual was last updated.
LastUpdateUser	string restricted to	X	X	The name of the user that last updated this activity period actual.

	maxLength(255)			
PlannedValueCost	double		X	The planned value cost on this activity during a financial period.
PlannedValueLaborUnits	double		X	The planned value labor units on this activity during a financial period.
ProjectObjectId	int	X	X	The unique ID of the associated project.
WBSObjectId	int	X	X	The unique ID of the WBS for the activity.

## ActivityStep Service

### Operations:

- CreateActivitySteps Operation** (on page 121)
- ReadActivitySteps Operation** (on page 121)
- UpdateActivitySteps Operation** (on page 122)
- DeleteActivitySteps Operation** (on page 122)
- GetFieldLengthActivityStep Operation** (on page 123)

### WSDL: ActivityStep.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityStep/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/ActivityStepService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/ActivityStepService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.activitystep.ActivityStepService`

### Description:

Activity steps provide a way to break activities down into smaller units and track the completion of those units. For example, the activity Prepare for System Integration and Testing might contain the following steps:



- ▶ Establish test cases and test procedures
- ▶ Create test data
- ▶ Update SDFs

You can add as many steps to an activity as you need: some activities will require more steps to complete than others and some activities may require no additional steps at all. If progress occurs on the step, enter a percent complete or set the `IsCompleted` flag if the step is 100% complete. You can also assign additional information to steps, such as cost, start and finish dates, and text.

#### Weighted steps

Weighted steps enable you to track the progress of an activity based on the number of steps completed. When activity percent complete is specified to be based on activity steps, and physical is chosen as the activity's percent complete type, activity percent complete is updated based on the weight you assign to each activity step.

For example, in the activity Prepare for System Integration and Testing mentioned above, the steps are assigned weights of 3.0, 2.0, and 1.0 respectively. When you specify the step Establish Test Cases and Test Procedures to be complete, the activity's physical percent complete is updated to 50 percent (because the total weight for the steps in this activity is 6.0 and the weight for this step is 3.0; therefore, half the work on this activity, according to the weight of the steps, has been completed).

The `ActivityStep` service supports user defined fields (UDFs). Use the `UDFValue` service to assign UDFs.

### CreateActivitySteps Operation

Description: Creates multiple `ActivityStep` objects in the database. You can create up to 1000 `ActivityStep` objects with a single call.

**Service:** *ActivityStep Service (on page 120)*

Style: Document/literal wrapped

Input:

Message: `CreateActivitySteps`

Elements: `ActivityStep` elements that contain **ActivityStep Fields** (on page 123) fields

Required fields:

- ▶ Name
- ▶ `ActivityObjectId`

Output:

Message: `CreateActivityStepsResponse`

Output: Zero to many `ObjectId` elements

### ReadActivitySteps Operation

Description: Reads `ActivityStep` objects from the database.

**Service:** *ActivityStep Service (on page 120)*

Style: Document/literal wrapped

Input:

Message: ReadActivitySteps

Elements: One to many field names from the **ActivityStep Fields** (on page 123) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityStepsResponse

Output: Zero to many ActivityStep elements that contain **ActivityStep Fields** (on page 123) fields.

### UpdateActivitySteps Operation

Description: Updates multiple ActivityStep objects in the database. You can update up to 1000 ActivityStep objects with a single call.

**Service:** *ActivityStep Service (on page 120)*

Style: Document/literal wrapped

Input:

Message: UpdateActivitySteps

Elements: ActivityStep elements that contain **ActivityStep Fields** (on page 123) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateActivityStepsResponse

Output: boolean

### DeleteActivitySteps Operation

Description: Deletes multiple ActivityStep objects in the database. You can delete up to 1000 ActivityStep objects with a single call.

**Service:** *ActivityStep Service (on page 120)*

Style: Document/literal wrapped

Input:

Message: DeleteActivitySteps

Elements: One to many ObjectId elements

Output:

Message: DeleteActivityStepsResponse

Output: boolean

### GetFieldLengthActivityStep Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityStep Service (on page 120)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityStep

Elements: FieldLength

Output:

Message: GetFieldLengthActivityStepResponse

Elements: One to many FieldLengthActivitySteps.

### ActivityStep Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityId	string restricted to maxLength(40)	X	X	The short ID that uniquely identifies the activity within the project.
ActivityName	string restricted to maxLength(120)	X	X	The name of the activity. The activity name does not have to be unique.
ActivityObjectId	int		X	The unique ID of the activity to which the steps are assigned.
CreateDate	dateTime	X	X	The date this activity step was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this activity step.
Description	string			The description of the activity step.

IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline.
IsCompleted	boolean		X	The flag that indicates whether the step has been completed.
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this activity step was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this activity step.
Name	string restricted to maxLength(120)		X	The name of the activity step.
ObjectId	int		X	The unique ID generated by the system.
PercentComplete	double restricted to minInclusive(0.0) maxInclusive(1.0)		X	The percent complete for the step.
ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the project.
ProjectObjectId	int	X	X	The unique ID of the associated project.
SequenceNumber	int		X	The sequence number for sorting.
WBSObjectId	int	X	X	The unique ID of the WBS for the activity.
Weight	double restricted to minInclusive(0.0) maxInclusive(9999)		X	The weight that is assigned to the step. This is a user defined field that is used to calculate the physical percent complete when

	99.0)			the project option is set.
WeightPercent	double	X		The non-editable field that displays the percentage amount that corresponds to the step. It is calculated by taking the weight of the step and dividing it by the total of all weights for the activity.

## ActivityStepTemplate Service

### Operations:

**CreateActivityStepTemplates Operation** (on page 126)

**ReadActivityStepTemplates Operation** (on page 126)

**UpdateActivityStepTemplates Operation** (on page 127)

**DeleteActivityStepTemplates Operation** (on page 127)

**GetFieldLengthActivityStepTemplate Operation** (on page 127)

### WSDL: ActivityStepTemplate.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityStepTemplate/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ActivityStepTemplateService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ActivityStepTemplateService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.activitysteptemplate.ActivityStepTemplateService`

### Description:

Activity step templates enable you to define a group of steps common to multiple activities, and then assign the template to activities. Your organization may have several activities that repeat within a project or across projects. For example, every time you start a project, several specifications must be written and approved. Developing a specification is a multi-step process that never changes.

As an example, the "Write Specifications" activity could have the following steps:

- ▶ Submit initial spec
- ▶ Review initial spec
- ▶ Revise initial spec
- ▶ Final review

▶ Final revision

These steps may apply to many or all "Write Specifications" activities in a project or across all projects. Rather than manually inputting these steps into each "Write Specifications" activity, you can create an activity step template containing these steps and assign the template to each applicable activity at once. One activity step template may contain several activity steps. Each activity template step is represented by the `ActivityStepTemplateItem` business object.

### CreateActivityStepTemplates Operation

Description: Creates multiple Activity Step Template objects in the database. You can create up to 1000 Activity Step Template objects with a single call.

**Service:** *ActivityStepTemplate Service (on page 125)*

Style: Document/literal wrapped

Input:

Message: `CreateActivityStepTemplates`

Elements: Activity Step Template elements that contain **ActivityStepTemplate Fields** (on page 128) fields

Required fields: Name.

Output:

Message: `CreateActivityStepTemplatesResponse`

Output: Zero to many `ObjectId` elements

### ReadActivityStepTemplates Operation

Description: Reads `ActivityStepTemplate` objects from the database.

**Service:** *ActivityStepTemplate Service (on page 125)*

Style: Document/literal wrapped

Input:

Message: `ReadActivityStepTemplates`

Elements: One to many field names from the **ActivityStepTemplate Fields** (on page 128) field list

You may also include an optional element that contains a filter clause and an optional element that contains an `OrderBy` clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: `ReadActivityStepTemplatesResponse`

Output: Zero to many `ActivityStepTemplate` elements that contain **ActivityStepTemplate Fields** (on page 128) fields.

### UpdateActivityStepTemplates Operation

Description: Updates multiple Activity Step Template objects in the database. You can update up to 1000 Activity Step Template objects with a single call.

**Service:** *ActivityStepTemplate Service (on page 125)*

Style: Document/literal wrapped

Input:

Message: UpdateActivityStepTemplates

Elements: ActivityStepTemplate elements that contain **ActivityStepTemplate Fields** (on page 128) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateActivityStepTemplatesResponse

Output: boolean

### DeleteActivityStepTemplates Operation

Description: Deletes multiple Activity Step Template objects in the database. You can delete up to 1000 Activity Step Template objects with a single call.

**Service:** *ActivityStepTemplate Service (on page 125)*

Style: Document/literal wrapped

Input:

Message: DeleteActivityStepTemplates

Elements: One to many ObjectId elements

Output:

Message: DeleteActivityStepTemplatesResponse

Output: boolean

### GetFieldLengthActivityStepTemplate Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityStepTemplate Service (on page 125)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityStepTemplate

Elements: FieldLength

Output:

Message: getFieldLengthActivityStepTemplateResponse  
 Elements: One to many FieldLengthActivityStepTemplates.

### ActivityStepTemplate Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this activity step template was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this activity step template.
LastUpdate Date	dateTime	X	X	The date this activity step template was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this activity step template.
Name	string restricted to maxLength(120)	X	X	The name of the activity step template.
ObjectId	int	X	X	The unique ID generated by the system.
SequenceNumber	int	X	X	The sequence number for sorting.
StepCount	int	X		The number of items in this activity step template.



## ActivityStepTemplateItem Service

### Operations:

**CreateActivityStepTemplateItems Operation** (on page 129)

**ReadActivityStepTemplateItems Operation** (on page 130)

**UpdateActivityStepTemplateItems Operation** (on page 130)

**DeleteActivityStepTemplateItems Operation** (on page 130)

**GetFieldLengthActivityStepTemplateItem Operation** (on page 131)

### WSDL: ActivityStepTemplateItem.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityStepTemplateItem/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ActivityStepTemplateItemService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ActivityStepTemplateItemService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.activitysteptemplateitem.ActivityStepTemplateItemService`

### Description:

An activity step template item is one of the defined steps in the associated activity template. See the ActivityStepTemplate Service for more information about activity step templates.

The ActivityStepTemplateItem service supports user defined fields (UDFs). Use the UDFValue Service to read the associated UDF assignments.

## CreateActivityStepTemplateItems Operation

Description: Creates multiple Activity Step Template Item objects in the database. You can create up to 1000 Activity Step Template objects with a single call.

**Service:** *ActivityStepTemplateItem Service* (on page 129)

Style: Document/literal wrapped

Input:

Message: CreateActivityStepTemplateItems

Elements: Activity Step Template Item elements that contain **ActivityStepTemplateItem Fields** (on page 131) fields

Required fields: Name, ActivityStepTemplateObjectID.

Output:

Message: CreateActivityStepTemplateItemsResponse

Output: Zero to many ObjectID elements

## ReadActivityStepTemplateltems Operation

Description: Reads ActivityStepTemplateltem objects from the database.

**Service:** *ActivityStepTemplateltem Service (on page 129)*

Style: Document/literal wrapped

Input:

Message: ReadActivityStepTemplateltems

Elements: One to many field names from the **ActivityStepTemplateltem Fields** (on page 131) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityStepTemplateltemsResponse

Output: Zero to many ActivityStepTemplateltem elements that contain **ActivityStepTemplateltem Fields** (on page 131) fields.

## UpdateActivityStepTemplateltems Operation

Description: Updates multiple Activity Step Template Item objects in the database. You can update up to 1000 Activity Step Template Item objects with a single call.

**Service:** *ActivityStepTemplateltem Service (on page 129)*

Style: Document/literal wrapped

Input:

Message: UpdateActivityStepTemplateltems

Elements: Activity Step Template Item elements that contain **ActivityStepTemplateltem Fields** (on page 131) fields.

Required fields: The Objectld must be specified.

Output:

Message: UpdateActivityStepTemplateltemsResponse

Output: boolean

## DeleteActivityStepTemplateltems Operation

Description: Deletes multiple Activity Step Template Item objects in the database. You can delete up to 1000 Activity Step Template Item objects with a single call.

**Service:** *ActivityStepTemplateltem Service (on page 129)*

Style: Document/literal wrapped

## Input:

Message: DeleteActivityStepTemplateItems

Elements: One to many ObjectId elements

## Output:

Message: DeleteActivityStepTemplateItemsResponse

Output: boolean

### GetFieldLengthActivityStepTemplateItem Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityStepTemplateItem Service (on page 129)*

Style: Document/literal wrapped

## Input:

Message: GetFieldLengthActivityStepTemplateItem

Elements: FieldLength

## Output:

Message: GetFieldLengthActivityStepTemplateItemResponse

Elements: One to many FieldLengthActivityStepTemplateItems.

### ActivityStepTemplateItem Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityStepTemplateObjectId	int	X	X	The unique ID of the activity step template to which this item belongs.
CreateDate	dateTime	X	X	The date this activity step template item was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this activity step template item.
Description	string	X		The description of the activity step.
LastUpdateDate	dateTime	X	X	The date this

te				activity step template item was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this activity step template item.
Name	string restricted to maxLength(120)	X	X	The name of the activity step template item.
ObjectId	int	X	X	The unique ID generated by the system.
SequenceNumber	int	X	X	The sequence number for sorting.
Weight	double restricted to minInclusive(0.0) maxInclusive(999999.0)	X	X	The weight that is assigned to the step. This is a user defined field that is used to calculate the physical percent complete when the project option is set.

## CBS Service

### Operations

**CreateCBSs Operation** (on page 133)

**ReadCBSs Operation** (on page 133)

**DeleteCBSs Operation** (on page 134)

**UpdateCBSs Operation** (on page 134)

**GetFieldLengthCBS Operation** (on page 135)

### WSDL: CBS.wsdl

Primary Key Field:

- ▶ ObjectId

- ▶ ParentObjectID
- ▶ ProjectObjectID

Target Namespace: `http://xmlns.oracle.com/Primavera/P6/WS/CBS/V1`

Default Transport URLs:

`http://<hostname>:<port number>/p6ws/services/CBSService?wsdl`  
`https://<hostname>:<port number>/p6ws/services/CBSService?wsdl`

### Java Client Stub Class:

`com.primavera.ws.p6.cbs.CBSService`

### Description:

You can use Primavera Unifier to perform advanced cost, cash flow and earned value analysis on your P6 projects.

If your P6 deployment is integrated with Primavera Unifier, you can send P6 data to Primavera Unifier and import some data from Primavera Unifier back into P6. Once the link between a P6 project and a Primavera Unifier project and schedule sheet or summary sheet is set up, P6 will retrieve the Cost Breakdown Structure (CBS) from the Primavera Unifier project regularly.

## CreateCBSs Operation

Description: Creates multiple CBS objects in the database. You can create up to 1000 CBS objects with a single call.

**Service:** *CBS Service (on page 132)*

Style: Document/literal wrapped

Input:

Message: CreateCBSs

Elements: One to many field names from the **CBS Fields** (on page 135) field list.

Required:

- ▶ CBSCode
- ▶ ProjectObjectID

Output:

Message: ReadCBSsResponse

Output: Zero to many CBS elements that contain CBS fields.

## ReadCBSs Operation

Description: Reads CBS objects in the database.

**Service: CBS Service (on page 132)**

Style: Document/literal wrapped

Input:

Message: ReadCBSs

Elements: One to many field names from the **CBS Fields** (on page 135) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: CreateCBSsResponse

Output: Zero to many CBS Service elements that contain CBS fields.

### UpdateCBSs Operation

Description: Updates multiple CBS objects in the database. You can update up to 1000 CBS objects with a single call.

**Service: CBS Service (on page 132)**

Style: Document/literal wrapped

Input:

Message: UpdateCBSs

Elements: CBS elements that contain **CBS Fields** (on page 135) fields.

Required: The ObjectID must be specified

Output:

Message: UpdateCBSsResponse

Output: Boolean

### DeleteCBSs Operation

Description: Deletes multiple CBS objects in the database. You can delete up to 1000 CBS objects with a single call.

**Service: CBS Service (on page 132)**

Style: Document/literal wrapped

Input:

Message: DeleteCBSs

Elements: One to many ObjectID elements.

Output: UpdateCBS Operation

Message: DeleteCBSsResponse

Output: Boolean

### GetFieldLengthCBS Operation

Description: Returns length of variable character fields for a BO.

**Service:** CBS Service (on page 132)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthCBS

Elements: FieldLength

Output:

Message: GetFieldLengthCBSResponse

Elements: One to many FieldLengthCBSs.

### CBS Fields

Field	Type	Read Only	Filter Orderable	Description
CBSCode	string restricted to maxLength(120)		X	The unique name of the Unifier CBS Code. Assign CBS codes to activities so that you can filter which activities you will send to Unifier.
CBSDescription	string restricted to maxLength(4000)			The description of the associated CBS.
CBSStatus	string restricted to "Active"			Specifies the status of the CBS.

	'In Active'			
CreateDate	dateTime	X	X	The date this activity was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this activity.
LastUpdateDate	dateTime	X	X	The date this activity was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this activity.
ObjectId	int		X	The unique ID generated by the system.
ParentObjectId	int		X	The unique ID of the parent CBS for this CBS in the hierarchy.
ProjectObjectId	int	X	X	The unique ID of the associated project.

## CBSDurationSummary Service

### Operations:

**CreateCBSDurationSummarys Operation** (on page 137)

**ReadCBSDurationSummarys Operation** (on page 137)

**UpdateCBSDurationSummarys Operation** (on page 138)

**DeleteCBSDurationSummarys Operation** (on page 138)

**GetFieldLengthCBSDurationSummary Operation** (on page 139)



**WSDL: CBSDurationSummary.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/CBSDurationSummary/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/CBSDurationSummarywsdl>

<https://<hostname>:<port number>/p6ws/services/CBSDurationSummary?wsdl>

**Java Client Stub Class:**

com.primavera.ws.p6.cbsdurationsummary.CBSDurationSummary

**Description:**

Provides a summary of the actual, planned, and remaining: duration, finish date, start date, and percent complete for an activity in a CBS.

**CreateCBSDurationSummarys Operation**

Description: Creates multiple CBSDurationSummarys objects in the database. You can create up to 1000 CBS objects with a single call.

**Service:** *CBSDurationSummary Service (on page 136)*

Style: Document/literal wrapped

Input:

Message: CreateCBSDurationSummarys

Elements: One to many field names from the ***CBSDurationSummary Fields*** (on page 139) field list.

Required:

- ▶ ProjectId
- ▶ CBSId

Output:

Message: CreateCBSDurationSummarysResponse

Output: Zero to many CBS elements that contain CBSDurationSummarys Fields fields.

**ReadCBSDurationSummarys Operation**

Description: Reads multiple CBSDurationSummarys objects in the database.

**Service:** *CBSDurationSummary Service (on page 136)*

Style: Document/literal wrapped

Input:

Message: ReadCBSDurationSummarys

Elements: One to many field names from the ***CBSDurationSummary Fields*** (on page 139) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: CreateCBSDurationSummariesResponse

Output: Zero to many CBSDurationSummaries elements that contain CBSDurationSummaries fields.

### UpdateCBSDurationSummaries Operation

Description: Updates CBSDurationSummaries objects from the database. You can update up to 1000 CBSDurationSummaries objects with a single call.

**Service:** *CBSDurationSummary Service (on page 136)*

Style: Document/literal wrapped

Input:

Message: UpdateCBSDurationSummaries

Elements: One to many fields from the ***CBSDurationSummary Fields*** (on page 139) field list

Required: The ObjectID must be specified

Output:

Message: UpdateCBSDurationSummariesResponses

Output: boolean

### DeleteCBSDurationSummaries Operation

Description: Deletes CBSDurationSummaries objects from the database. You can delete up to 1000 CBSDurationSummaries objects with a single call.

**Service:** *CBSDurationSummary Service (on page 136)*

Style: Document/literal wrapped

Input:

Message: DeleteCBSDurationSummaries

Elements: One to many fields from the ***CBSDurationSummary Fields*** (on page 139) field list

Output:

Message: DeleteCBSDurationSummariesResponses

Output: boolean

### GetFieldLengthCBSDurationSummary Operation

Description: Returns length of variable character fields for a BO.

**Service:** *CBSDurationSummary Service (on page 136)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthCBSDurationSummary

Elements: FieldLength

Output:

Message: GetFieldLengthCBSDurationSummaryResponse

Elements: One to many FieldLengthCBSDurationSummarys.

### CBSDurationSummary Fields

Field	Type	Read Only	Filterable Orderable	Descriptions
CBSObjectId	int	X	X	The internal CBS ID of the project. This ID cannot be used to load the CBS object directly.
OriginalProject ObjectId	int	X	X	The unique ID of the project from which the project baseline was created, if the current project is a project baseline
ProjectId	restricted to maxLength(40)	X	X	The short code of the associated project.
ProjectName	restricted to maxLength(100)	X	X	The name of the associated project.
ProjectObjectId	int		X	The unique ID of the associated project.
SummaryActual Duration	double	X		The actual duration.

SummaryActualFinishDate	dateTime	X		The latest actual finish date of all activities in the CBS.
SummaryActualStartDate	dateTime	X		The earliest actual start date of all activities in the CBS.
SummaryPercentComplete	double	X		The measure that indicates how much of the CBS baseline duration has been completed so far. Computed based on where the current data date falls between the activity's baseline start and finish dates. If the data date is earlier than the baseline start, the schedule % complete is 0. If the data date is later than the baseline finish, the schedule % complete is 100. The schedule % complete indicates how much of the CBS duration should be currently completed, relative to the selected baseline.
SummaryPlannedDuration	double	X		The total working days between planned start and finish dates in the CBS.
SummaryPlannedFinishDate	dateTime	X		The latest planned finish date of all activities in the CBS.

SummaryPlannedStartDate	dateTime	X		The earliest planned start date of all activities in the CBS.
SummaryRemainingDuration	double	X		The total working time from the CBS remaining start date to the remaining finish date.
SummaryRemainingFinishDate	dateTime	X		The date the resource is scheduled to finish the remaining work for the activity.
SummaryRemainingStartDate	dateTime			The earliest remaining start of all activities assigned to the CBS.

## EPS Service

### Operations:

**CreateEPS Operation** (on page 142)

**ReadEPS Operation** (on page 142)

**UpdateEPS Operation** (on page 143)

**DeleteEPS Operation** (on page 143)

**GetFieldLengthEPS Operation** (on page 143)

**ReadProjectEPSPath Operation** (on page 144)

**ReadEPSPath Operation** (on page 144)

### WSDL: EPS.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/EPS/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/EPSService?wsdl>

<https://<hostname>:<port number>/p6ws/services/EPSService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.eps.EPSService`

### Description:

EPS (Enterprise Project Structure) is the hierarchical structure of projects in the database. It is used to perform top-down budgeting, manage multiple projects, implement coding standards, and maintain security throughout the enterprise. EPSs are hierarchical objects. EPS objects can only be deleted from the database if they and their EPS children have no child projects. To delete an EPS, you must first move or delete all projects that are children of that EPS or of that EPS node's EPS children.

The EPS service supports user defined fields (UDFs). Use the UDFValue service to assign UDFs.

### CreateEPS Operation

Description: Creates multiple EPS objects in the database. You can create up to 1000 EPS objects with a single call.

**Service:** *EPS Service (on page 141)*

Style: Document/literal wrapped

Input:

Message: CreateEPS

Elements: EPS elements that contain **EPS Fields** (on page 145) fields

Required fields: The following fields are required when creating the EPS object:

- ▶ Id
- ▶ Name
- ▶ At least one of the following fields: ParentObjectId or OBSObjectId

Output:

Message: CreateEPSResponse

Output: Zero to many ObjectId elements

### ReadEPS Operation

Description: Reads EPS objects from the database.

**Service:** *EPS Service (on page 141)*

Style: Document/literal wrapped

Input:

Message: ReadEPS

Elements: One to many field names from the **EPS Fields** (on page 145) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadEPSResponse

Output: Zero to many EPS elements that contain **EPS Fields** (on page 145) fields.

### UpdateEPS Operation

Description: Updates multiple EPS objects in the database. You can update up to 1000 EPS objects with a single call.

**Service:** *EPS Service* (on page 141)

Style: Document/literal wrapped

Input:

Message: UpdateEPS

Elements: EPS elements that contain **EPS Fields** (on page 145) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateEPSResponse

Output: boolean

### DeleteEPS Operation

Description: Deletes multiple EPS objects in the database. You can delete up to 1000 EPS objects with a single call.

**Service:** *EPS Service* (on page 141)

Style: Document/literal wrapped

Input:

Message: DeleteEPS

Elements: One to many ObjectID elements

Output:

Message: DeleteEPSResponse

Output: boolean

### GetFieldLengthEPS Operation

Description: Returns length of variable character fields for a BO.

**Service:** *EPS Service* (on page 141)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthEPS

Elements: FieldLength

Output:

Message: GetFieldLengthEPSResponse

Elements: One to many FieldLengthEPSs.

### ReadProjectEPSPath Operation

Description: Reads EPS objects from the database.

**Service:** *EPS Service* (on page 141)

Style: Document/literal wrapped

Input:

Message: ReadProjectEPSPath

Elements:

- ▶ One to many ProjectObjectId elements
- ▶ One to many field names from the ***EPS Fields*** (on page 145) field list.

Output:

Message: ReadProjectEPSPathResponse

Output: Zero to many EPS elements that contain ***EPS Fields*** (on page 145) fields.

### ReadEPSPath Operation

Description: Reads EPS objects from the database.

**Service:** *EPS Service* (on page 141)

Style: Document/literal wrapped

Input:

Message: ReadEPSPath

Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the ***EPS Fields*** (on page 145) field list.

Output:

Message: ReadEPSPathResponse

Output: Zero to many EPS elements that contain EPS fields.



## EPS Fields

Field	Type	Read Only	Filterable Orderable	Description
AnticipatedFinishDate	dateTime		X	The anticipated finish date of the EPS. User-entered - not dependent upon any other fields. If there are no children, the anticipated finish date will be the finish date displayed in the columns.
AnticipatedStartDate	dateTime		X	The anticipated start date of the EPS. User-entered - not dependent upon any other fields. If there are no children, the anticipated start date will be the start date displayed

				in the columns.
CreateDate	dateTime	X	X	The date this EPS was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this EPS.
CurrentBudget	double	X		The sum of the original budget plus the approved and pending budgets from the budget change log.
CurrentVariance	double	X		The difference between the current budget and the total spending plan. Calculated as current budget - total spending plan. Not rolled up
DistributedCurrentBudget	double	X		The current budget values from one level lower.
FinishDate	dateTime	X		The finish

				date of the EPS.
GUID	string restricted to pattern '\{[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}\}'		X	The globally unique ID generated by the system.
Id	string restricted to maxLength(40)		X	The short code assigned to each EPS element for identification.
IndependentETCLaborUnits	double	X	X	The user-entered ETC total labor.
IndependentETCTotalCost	double restricted to minInclusive(0.0)	X	X	The user-entered ETC total cost.
LastSummarizedDate	dateTime	X	X	The date the project was last summarized.
LastUpdateDate	dateTime	X	X	The date this EPS was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this EPS.
Name	string restricted to maxLength(100)		X	The name of the EPS element.

OBSName	string restricted to maxLength(100)	X	X	The name of the person/role in the organization, sometimes referred to as the "responsible manager".
OBSObjectld	int		X	The unique ID of the project manager from the project's OBS tree who is responsible for the EPS.
Objectld	int		X	The unique ID generated by the system.
OriginalBudget	double		X	The original budget for the project.
ParentEPSld	string		X	The Id of the parent EPS.
ParentEPSName	string		X	The Name of the parent EPS.
ParentObjectld	int		X	The unique ID of the parent EPS of this EPS in the hierarchy.

PlannedStartDate	dateTime	X	X	The planned start date of the project. Used by the project scheduler.
ProjectObjectId	int	X	X	The internal Project ID of the EPS. This ID cannot be used to load a Project object directly.
ProposedBudget	double	X		The Proposed Budget, which is the sum of the original budget plus the approved and pending budgets from the budget change log.
SequenceNumber	int		X	The sequence number for sorting.
StartDate	dateTime	X		The start date of the EPS.
SummaryAccountingVarianceByCost	double	X		the Planned Value minus the

				Actual Cost. A negative value indicates that the Actual Cost has exceeded the Planned Value.
SummaryAccountingVarianceByLaborUnits	double	X		the Planned Value Labor Units minus the Actual Units. Negative value indicates that Actual Units have exceeded the Planned Value Labor Units.
SummaryActivityCount	int	X		the number of activities that are currently in progress.
SummaryActualDuration	double	X		The actual duration.
SummaryActualExpenseCost	double	X		The actual costs for all project expenses associated with the

				EPS.
SummaryActualFinishDate	dateTime	X		The latest actual finish date of all activities in the EPS.
SummaryActualLaborCost	double	X		The actual cost for all labor resources assigned to the activity.
SummaryActualLaborUnits	double	X		The actual labor units.
SummaryActualMaterialCost	double	X		The actual units for all material resources assigned to the activity.
SummaryActualNonLaborCost	double	X		The actual units for all nonlabor resources assigned to the activity.
SummaryActualNonLaborUnits	double	X		The actual nonlabor units.
SummaryActualStartDate	dateTime	X		The earliest actual start date of all activities in the EPS.
SummaryActualThisPeriodCost	double	X		The actual this period cost (will be labor or

				nonlabor).
SummaryActualThisPeriodLaborCost	double	X		The actual this period labor cost
SummaryActualThisPeriodLaborUnits	double	X		The actual this period labor units.
SummaryActualThisPeriodMaterialCost	double	X		The actual this period material cost.
SummaryActualThisPeriodNonLaborCost	double	X		The actual this period nonlabor cost.
SummaryActualThisPeriodNonLaborUnits	double	X		The actual this period nonlabor units.
SummaryActualTotalCost	double	X		The actual labor cost + actual nonlabor cost + actual expense cost as of the project data date.
SummaryActualValueByCost	double	X		the actual total cost incurred on the activity as of the project data date, computed as Actual Labor Cost + Actual Nonlabor Cost + Actual



				Material Cost + Actual Expense Cost.
SummaryActualValueByLaborUnits	double	X		the actual total labor units for the activity as of the project data date (that is, actual total cost by labor units).
SummaryAtCompletionDuration	double	X		The duration at completion .
SummaryAtCompletionExpenseCost	double	X		the sum of the actual plus remaining cost for all project expenses associated with the cost account. Computed as Actual Expense Cost + Remaining Expense Cost.
SummaryAtCompletionLaborCost	double	X		The sum of the actual plus remaining costs for all labor resources assigned

				to the activity. Computed as actual labor cost + remaining labor cost. Same as the planned labor costs if the activity is not started and the actual labor costs once the activity is completed.
SummaryAtCompletionLaborUnits	double	X		The sum of the actual plus remaining units for all labor resources assigned to the activity. Computed as actual labor units + remaining labor units. Same as the planned labor units if the activity is not started and the actual labor units once the

				activity is completed.
SummaryAtCompletionMaterialCost	double	X		The material cost at completion . It is the sum of the actual plus remaining costs for all material resources assigned to the activity. Computed as actual material cost + remaining material cost. Same as the planned material costs if the activity is not started and the actual material costs once the activity is completed.
SummaryAtCompletionNonLaborCost	double	X		The nonlabor cost at completion . It is the sum of the actual plus remaining costs for all nonlabor resources

				assigned to the activity. Computed as actual nonlabor cost + remaining nonlabor cost. Same as the planned nonlabor costs if the activity is not started and the actual nonlabor costs once the activity is completed.
SummaryAtCompletionNonLaborUnits	double	X		The nonlabor units at completion . It is the sum of the actual plus remaining units for all nonlabor resources assigned to the activity. Computed as actual nonlabor units + remaining nonlabor units. Same as the planned nonlabor

				units if the activity is not started and the actual nonlabor units once the activity is completed.
SummaryAtCompletionTotalCost	double	X		The estimated cost at completion for the activity. Computed as the actual total cost plus the estimate-to-complete cost; $EAC = ACWP + ETC$ . Note that the method for computing ETC depends on the earned-value technique selected for the activity's WBS.
SummaryAtCompletionTotalCostVariance	double	X		the Baseline Planned Total Cost - At Completion Total Cost.

SummaryBaselineCompletedActivityCount	int	X		The number of completed activities in the baseline.
SummaryBaselineDuration	double	X		the planned duration for the activity in the primary baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar.
SummaryBaselineExpenseCost	double	X		the planned cost for all project expenses associated with the activity in the primary baseline.

				Computed as the baseline actual expense cost plus the baseline remaining expense cost.
SummaryBaselineFinishDate	dateTime	X		The current latest finish date of all activities in the EPS for the current baseline.
SummaryBaselineInProgressActivityCount	int	X		the number of activities that should be currently in progress, according to the primary baseline. Computed using the baseline start and finish dates and the current data date.
SummaryBaselineLaborCost	double	X		the planned cost for all labor resources assigned to the activity in

				the primary baseline. Computed from the baseline At Completion labor units. If no resources are assigned, computed as the activity Baseline Planned Labor Units * Project Default Price / Time.
SummaryBaselineLaborUnits	double	X		the planned units for all labor resources assigned to the activity in the primary baseline. Computed as the baseline actual labor units plus the baseline remaining labor units.
SummaryBaselineMaterialCost	double	X		the planned cost for all material resources assigned to the



				activity in the primary baseline. Computed from the baseline At Completion nonlabor units. If no resources are assigned.
SummaryBaseline NonLaborCost	double	X		the planned cost for all nonlabor resources assigned to the activity in the primary baseline. Computed from the baseline At Completion nonlabor units. If no resources are assigned, computed as the activity Baseline Planned Nonlabor Units * Project Default Price / Time.
SummaryBaseline NonLaborUnits	double	X		the planned units for all nonlabor resources assigned

				to the activity in the primary baseline. Computed as the baseline actual nonlabor units plus the baseline remaining nonlabor units.
SummaryBaselineNotStartedActivityCount	int	X		The number of activities not started in the baseline.
SummaryBaselineStartDate	dateTime	X		The current earliest start date of all activities in the EPS for the current baseline.
SummaryBaselineTotalCost	double	X		the Planned Total Cost for the activity in the primary baseline, including labor resources, nonlabor resources, and project expenses. Baseline Planned

				Total Cost = Baseline Planned Labor Cost + Baseline Planned Nonlabor Cost + Baseline Planned Expense Cost.
SummaryBudgetAtCompletionByCost	double	X		the Planned Total Cost through activity completion . Computed as Planned Labor Cost + Planned Nonlabor Cost + Planned Expense Cost, same as the Planned Total Cost.
SummaryBudgetAtCompletionByLaborUnits	double	X		the Baseline Labor Units
SummaryCompletedActivityCount	int	X		the number of activities that have an Actual Finish in the EPS.
SummaryCostPercentComplete	double	X		The percent complete

				of costs for the resource assignments in the EPS. Computed as Actual Units / At Complete Units * 100. Always in the range 0 to 100.
SummaryCostPercentOfPlanned	double	X		The activity actual cost percent of planned. Computed as actual total cost / baseline total cost * 100, or equivalently as ACWP / BAC * 100. The value can exceed 100. The baseline total cost is the activity's at completion cost from the current baseline. This field is named SummaryCostPercentOfBudget in

				Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
SummaryCostPerformanceIndexByCost	double	X		the Earned Value divided by the Actual Cost. A value less than 1 indicates that the Actual Cost has exceeded the Planned Value.
SummaryCostPerformanceIndexByLaborUnits	double	X		the Earned Value Labor Units / Actual Labor Units.
SummaryCostVarianceByCost	double	X		the Earned Value minus the Actual Cost. A negative value indicates that the Actual Cost has exceeded the Planned

				Value.
SummaryCostVarianceByLaborUnits	double	X		the Earned Value Labor Cost minus Actual Value Labor Cost.
SummaryCostVarianceIndex	double	X		The value that is calculated as the Cost Variance divided by Earned Value.
SummaryCostVarianceIndexByCost	double	X		the Cost Variance divided by Earned Value.
SummaryCostVarianceIndexByLaborUnits	double	X		the Cost Variance Labor Units divided by Earned Value Labor Units.
SummaryDurationPercentComplete	double	X		The activity actual duration percent of planned. Computed as (baseline planned duration - remaining duration) / baseline

				planned duration * 100.
SummaryDurationPercentOfPlanned	double	X		The summary actual duration percent of planned of all activities under this EPS. Computed as actual duration / baseline duration * 100. The value can exceed 100. The Baseline duration is the activity's at complete duration from the current baseline.
SummaryDurationVariance	double	X		The duration between the activity's baseline duration and the at complete duration. Computed as baseline duration - at completion

				duration.
SummaryEarnedValueByCost	double	X		the Budget at Completion * Performance % Complete. The method for computing the Performance Percent Complete depends on the Earned Value technique selected for the activity's WBS. Budget at Completion is computed from the primary baseline.
SummaryEarnedValueByLaborUnits	double	X		the Schedule Variance Labor Units divided by the Planned Value Labor Units.
SummaryEstimateAtCompletionByCost	double	X		the Actual Cost plus the Estimate to Complete



				Cost. The method for computing Estimate to Complete depends on the Earned Value technique selected for the activity's WBS.
SummaryEstimateAtCompletionByLaborUnits	double	X		the Actual Labor Units + Estimate To Complete Labor Units. (Estimate To Complete Labor Units is calculated based off of the Earned Value setting on the EPS.)
SummaryEstimateAtCompletionHighPercentByLaborUnits	double	X		the high forecast of Estimate At Completion (EAC) by labor units.
SummaryEstimateAtCompletionLowPercentByLaborUnits	double	X		the low forecast of Estimate At Completion (EAC) by

				labor units.
SummaryEstimateToCompleteByCost	double	X		the Remaining Total Cost for the activity or the Performance Factor * (Budget at Completion - Earned Value), depending on the Earned Value technique selected for the activity's WBS (calculated from the primary baseline).
SummaryEstimateToCompleteByLabor Units	double	X		the estimated quantity to complete the activity. Computed as either the remaining total units for the activity, or as Performance Factor * (Baseline Planned Labor Units - Planned Quantity of Work

				Performed), , depending on the Earned Value Technique selected for the activity's WBS.
SummaryExpense CostPercentCompl ete	double	X		The percent complete of cost for all expenses associated with the EPS. It is computed as Actual Expense Cost / At Complete Expense Cost * 100, and it is always in the range of 0 to 100.
SummaryExpense CostVariance	double	X		the Baseline Planned Expense Cost - At Completi on Expense Cost (At Completi on Expense Cost = Actual Expense Cost + Remaining Expense

				Cost).
SummaryFinishDateVariance	double	X		The duration between the finish date in the current project and the baseline finish date. Calculated as finish date - baseline finish date.
SummaryInProgressActivityCount	int	X		the number of activities that are currently in progress.
SummaryLaborCostPercentComplete	double	X		The percent complete of cost for all labor resources assigned to the EPS. It is computed as Actual Labor Cost / At Complete Labor Cost * 100, and it is always in the range of 0 to 100.
SummaryLaborCostVariance	double	X		the Baseline Planned Labor Cost - At

				Completion Labor Cost.
SummaryLaborUnitsPercentComplete	double	X		The percent complete of units for all labor resources for the EPS. Computed as actual labor units / at complete labor units * 100. Always in the range 0 to 100.
SummaryLaborUnitsVariance	double	X		The difference between baseline labor units and at completion labor units. Calculated as Baseline labor units - at completion labor units.
SummaryMaterialCostPercentComplete	double	X		The percent complete of cost for all material resources assigned to the EPS. It is computed as Actual

				Material Cost / At Complete Material Cost * 100, and it is always in the range of 0 to 100.
SummaryMaterialCostVariance	double	X		The variance that is calculated as Baseline Material Cost - At Completion Material Cost.
SummaryNonLaborCostPercentComplete	double	X		The percent complete of cost for all non-labor resources assigned to the EPS. It is computed as Actual Nonlabor Cost / At Complete Nonlabor Cost * 100, and it is always in the range of 0 to 100.
SummaryNonLaborCostVariance	double	X		the Baseline Planned Nonlabor Cost - At Completion

				n Nonlabor Cost.
SummaryNonLaborUnitsPercentComplete	double	X		The percent complete of units for all nonlabor resources for the EPS. Computed as Actual Nonlabor Cost / At Completion Nonlabor Cost * 100. Always in the range 0 to 100.
SummaryNonLaborUnitsVariance	double	X		The difference between baseline nonlabor units and at completion non labor units. Calculated as Baseline nonlabor units - at completion nonlabor units.
SummaryNotStartedActivityCount	int	X		the number of activities that are currently not started.
SummaryPerformance	double	X		the percent complete

ncePercentCompleteByCost				of performance for all labor resources, nonlabor resources, and expenses. Computed as Earned Value / Budget At Completion * 100. Always in the range 0 to 100.
SummaryPerformancePercentCompleteByLaborUnits	double	X		the percent complete of performance for all labor resources. Computed as earned value labor units / baseline labor units * 100. Always in the range 0 to 100.
SummaryPlannedCost	double	X		The sum of all planned expense, non labor, labor, and material costs in the EPS.
SummaryPlannedDuration	double	X		The total working days between



				planned start and finish dates in the EPS.
SummaryPlannedExpenseCost	double	X		The sum of all planned expense costs in the EPS.
SummaryPlannedFinishDate	dateTime	X		The latest planned finish date of all activities in the EPS.
SummaryPlannedLaborCost	double	X		The sum of all planned labor costs in the EPS.
SummaryPlannedLaborUnits	double	X		The sum of all planned labor units in the EPS.
SummaryPlannedMaterialCost	double	X		The sum of all planned material costs in the EPS.
SummaryPlannedNonLaborCost	double	X		The sum of all planned non labor costs in the EPS.
SummaryPlannedNonLaborUnits	double	X		The sum of all planned non labor units in the EPS.
SummaryPlannedStartDate	dateTime	X		The earliest planned start date of all

				activities in the EPS.
SummaryPlannedValueByCost	double	X		the Budget at Completion * Schedule % Complete. The Schedule % Complete specifies how much of the activity's baseline duration has been completed so far. Budget at Completion is computed from the primary baseline
SummaryPlannedValueByLaborUnits	double	X		the portion of the baseline labor units that is scheduled to be completed as of the project data date. Computed as Baseline Labor Units * Schedule % Complete.

				The Schedule % Complete specifies how much of the activity's baseline duration has been completed so far. The Baseline Labor Units is taken from the current baseline.
SummaryProgress FinishDate	dateTime	X		the date the activity is expected to be finished according to the progress made on the activity's work products. The expected finish date is entered manually by people familiar with progress of the activity's work products.
SummaryRemainin	double	X		The total working

gDuration				time from the EPS remaining start date to the remaining finish date.
SummaryRemainingExpenseCost	double	X		The remaining costs for all project expenses associated with the activities in the EPS.
SummaryRemainingFinishDate	dateTime	X		The date the resource is scheduled to finish the remaining work for the activity. This date is computed by the project scheduler but can be updated manually by the project manager. Before the activity is started, the remaining finish date is the same as the planned finish date.

SummaryRemainingLaborCost	double	X		The remaining costs for all labor resources assigned to the activities. The remaining cost reflects the cost remaining for the EPS.
SummaryRemainingLaborUnits	double	X		The remaining units for all labor resources assigned to the activities. The remaining units reflects the work remaining to be done for the EPS.
SummaryRemainingMaterialCost	double	X		The remaining material costs for all project expenses associated with the activities in the EPS.
SummaryRemainingNonLaborCost	double	X		The remaining nonlabor costs for

				all project expenses associated with the activities in the EPS.
SummaryRemainingNonLaborUnits	double	X		The remaining units for all nonlabor resources assigned to the activities. The remaining units reflects the work remaining to be done for the EPS.
SummaryRemainingStartDate	dateTime	X		The earliest remaining start of all activities assigned to the EPS.
SummaryRemainingTotalCost	double	X		The sum of all remaining total costs in the EPS.
SummarySchedulePercentComplete	double	X		The measure that indicates how much of the EPS baseline duration has been completed so far.

				Computed based on where the current data date falls between the activity's baseline start and finish dates. If the data date is earlier than the Baseline start, the schedule % complete is 0. If the data date is later than the Baseline finish, the schedule % complete is 100. The schedule % complete indicates how much of the EPS duration should be currently completed, relative to the selected baseline.
SummarySchedulePercentCompleteB	double	X		the percent complete

yLaborUnits				of units for all labor resources. Computed as Actual Labor Units / At Completion Labor Units * 100. Always in the range 0 to 100.
SummarySchedulePerformanceIndexByCost	double	X		the Earned Value divided by the Planned Value. A value less than 1 indicates that less work was actually performed than was scheduled.
SummarySchedulePerformanceIndexByLaborUnits	double	X		the Earned Value Labor Units divided by Planned Value Labor Units.
SummaryScheduleVarianceByCost	double	X		the Earned Value divided by the Planned Value. A negative value indicates



				that less work was actually performed than was scheduled.
SummarySchedule VarianceByLaborUnits	double	X		the Earned Value Labor Units minus the Planned Value Labor Units.
SummarySchedule VarianceIndex	double	X		The value that is calculated as the Schedule Variance Labor Units divided by Planned Value Labor Units.
SummarySchedule VarianceIndexByCost	double	X		the Schedule Variance divided by the Planned Value.
SummarySchedule VarianceIndexByLaborUnits	double	X		the Schedule Variance Labor Units divided by the Planned Value Labor Units.

SummaryStartDateVariance	double	X		The duration between the start date in the current project and the baseline start date. Calculated as start date - baseline start date.
SummaryToCompletePerformanceIndexByCost	double	X		the (Budget at Completion - Earned Value) divided by (Estimate at Completion - Actual Cost).
SummaryTotalCostVariance	double	X		The value that is calculated as baseline total cost - total cost.
SummaryTotalFloat	double	X		The amount of time the EPS can be delayed before delaying the project finish date. Total float can be computed as late start - early

				start or as late finish - early finish; this option can be set when running the project scheduler.
SummaryUnitsPercentComplete	double	X		The percent complete of units for the resource assignments in the EPS. Computed as Actual Units / At Complete Units * 100. Always in the range 0 to 100.
SummaryVarianceAtCompletionByLaborUnits	double	X		the Baseline Planned Total Labor Units minus Estimate at Completion Labor Units.
TotalBenefitPlan	double	X		The sum of the monthly benefit plan.
TotalBenefitPlanTally	double	X		The sum of the monthly

				benefit plan tally.
TotalFunding	double	X		The total amount of funding contributed to the project by your funding sources.
TotalSpendingPlan	double	X		The sum of the monthly spending plan.
TotalSpendingPlan Tally	double	X		The sum of the monthly spending plan tally.
UnallocatedBudget	double	X		The total current budget minus the distributed current budget.
UndistributedCurrentVariance	double	X		The total spending plan minus the total spending plan tally.

## LeanTask Service

### Operations:

**CreateLeanTask Operation** (on page 189)

**ReadLeanTask Operation** (on page 189)

**UpdateLeanTask Operation** (on page 190)

**DeleteLeanTasks Operation** (on page 190)

**GetFieldLengthLeanTask Operation** (on page 190)

**WSDL: LeanTask.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/LeanTask/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/LeanTaskService?wsdl>

<https://<hostname>:<port number>/p6ws/services/LeanTaskService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.leantask.LeanTaskService`

**Description:**

Use lean tasks to integrate P6 with Oracle Primavera Cloud for lean task integration.

### CreateLeanTask Operation

Description: Creates multiple LeanTask objects in the database. You can create up to 1000 LeanTask objects with a single call.

**Service:** *LeanTask Service* (on page 188)

Style: Document/literal wrapped

Input:

Message: CreateLeanTask

Elements: LeanTask elements that contain **LeanTask Fields** (on page 191) fields

Required fields:

- ▶ LeanTaskObjectId

Output:

Message: CreateLeanTaskResponse

Output: Zero to many ObjectId elements

### ReadLeanTask Operation

Description: Reads LeanTask objects from the database.

**Service:** *LeanTask Service* (on page 188)

Style: Document/literal wrapped

Input:

Message: ReadLeanTask

Elements: One to many field names from the **LeanTask Fields** (on page 191) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadLeanTaskResponse

Output: Zero to many LeanTask elements that contain **LeanTask Fields** (on page 191) fields.

### UpdateLeanTask Operation

Description: Updates multiple LeanTask objects in the database. You can update up to 1000 LeanTask objects with a single call.

**Service:** *LeanTask Service* (on page 188)

Style: Document/literal wrapped

Input:

Message: UpdateLeanTask

Elements: LeanTask elements that contain **LeanTask Fields** (on page 191) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateLeanTaskResponse

Output: boolean

### DeleteLeanTasks Operation

Description: Deletes multiple LeanTask objects in the database. You can delete up to 1000 LeanTask objects with a single call.

**Service:** *LeanTask Service* (on page 188)

Style: Document/literal wrapped

Input:

Message: DeleteLeanTask

Elements: One to many ObjectId elements

Output:

Message: DeleteLeanTaskResponse

Output: boolean

### GetFieldLengthLeanTask Operation

Description: Returns length of variable character fields for a BO.

**Service: LeanTask Service (on page 188)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthLeanTask

Elements: FieldLength

Output:

Message: GetFieldLengthLeanTaskResponse

Elements: One to many FieldLengthLeanTask

**LeanTask Fields**

Field	Type	Read Only	Filterable Orderable	Description
ActivityId	string restricted to maxLength(40)		X	The short ID that uniquely identifies the activity to which the lean task is assigned.
ActivityName	string restricted to maxLength(120)		X	The name of the activity to which the lean task is assigned.
ActivityObjectId	int		X	The unique ID of the activity to which the lean task is assigned.
Company	string		X	The company associated with the lean task in Oracle Primavera Cloud.
CompletedDate	dateTime		X	The date the lean task was completed.
CreateDate	dateTime	X	X	The date the lean task was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this lean task.

DueDate	dateTime		X	The date the lean task is due.
Duration	double		X	Number of days required for task to complete..
Flag	boolean		X	The indication of whether the lean task is considered high importance.
IsBaseline	boolean		X	Determines whether the object is associated with a baseline (true) or a project (false).
IsOverdue	boolean		X	Shows whether the due date for the lean task is earlier than the current date.
IsTemplate	boolean	X	X	Determines whether the object is associated with a template project in Oracle Primavera Cloud.
IsUseOnlyWorkDays	boolean		X	Determines whether the object is set to use only working days in Oracle Primavera Cloud.
LastUpdateDate	dateTime	X	X	The date the lean task was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this lean task.



LeanTaskId	string restricted to maxLength(1 20)		X	The short ID that uniquely identifies the lean task.
Name	string restricted to maxLength(1 20)		x	The name of the lean task in Oracle Primavera Cloud.
ObjectId	int		x	The primary key of the lean task in the P6 EPPM database.
ProjectId	string restricted to maxLength(4 0)	X	X	The short ID that uniquely identifies the project to which the lean task is assigned.
ProjectObjec tId	int	X	X	The unique ID of the project to which the lean task is assigned.
ProposedDue Date	dateTime		X	The proposed due date of the lean task in Oracle Primavera Cloud.
SequenceN umber	int		X	Denotes the creation order of lean tasks relative to each other.
StartDate	dateTime		X	The date the lean task was started or is due to start.
Status	string restricted to 'NEW' 'PENDING' 'COMMITTE D' 'COMPLETE D'		X	The status of the lean task in Oracle Primavera Cloud.

StatusCompletion	string restricted to 'BOTH_NOT_COMPLETE' 'TASK_COMPLETE_ACTIVITY_NOT' 'ACTIVITY_COMPLETE_TASK_NOT' 'BOTH_COMPLETE' 'NO_ACTIVITY'		X	The completion status of the lean task in Oracle Primavera Cloud.
StatusDates	string restricted to 'OUTSIDE_ACTIVITY' 'INSIDE_ACTIVITY' 'NO_ACTIVITY'		X	A comparison of the dates of the lean task and the activity to which it is assigned.
TaskType	string restricted to 'TASK' 'TASK_MILESTONE'		X	The type of the lean task in Oracle Primavera Cloud.
WBSObjectid	int	X	X	The unique ID of the WBS to which the lean task is assigned.

## Relationship Service

### Operations:

**CreateRelationships Operation** (on page 195)

**ReadRelationships Operation** (on page 195)

**UpdateRelationships Operation** (on page 196)

**DeleteRelationships Operation** (on page 196)

**GetFieldLengthRelationship Operation** (on page 197)

**WSDL: Relationship.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Relationship/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RelationshipService?wsdl>

<https://<hostname>:<port number>/p6ws/services/RelationshipService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.relationship.RelationshipService`

**Description:**

A relationship defines how an activity relates to the start or finish of another activity or assignment. Add relationships between activities to create a path through your schedule from the first activity to the last activity. These relationships, which form the logic of the project network, are used together with activity durations to determine schedule dates. An activity can have as many relationships as necessary to model the work that must be done. You can also identify relationships between activities that are in different projects; this type of relationship is referred to as an external relationship.

**CreateRelationships Operation**

Description: Creates multiple Relationship objects in the database. You can create up to 1000 Relationship objects with a single call.

**Service:** *Relationship Service* (on page 194)

Style: Document/literal wrapped

Input:

Message: CreateRelationships

Elements: Relationship elements that contain **Relationship Fields** (on page 197) fields

Required fields:

- ▶ SuccessorActivityObjectId
- ▶ PredecessorActivityObjectId

Output:

Message: CreateRelationshipsResponse

Output: Zero to many ObjectId elements

**ReadRelationships Operation**

Description: Reads Relationship objects from the database.

**Service: Relationship Service (on page 194)**

Style: Document/literal wrapped

Input:

Message: ReadRelationships

Elements: One to many field names from the **Relationship Fields** (on page 197) field list.

You may also include an optional element that contains a filter clause, an optional element that contains an OrderBy clause, and an optional element that contains a LagProjectId.

Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRelationshipsResponse

Output: Zero to many Relationship elements that contain **Relationship Fields** (on page 197) fields.

### UpdateRelationships Operation

Description: Updates multiple Relationship objects in the database. You can update up to 1000 Relationship objects with a single call.

**Service: Relationship Service (on page 194)**

Style: Document/literal wrapped

Input:

Message: UpdateRelationships

Elements: Relationship elements that contain **Relationship Fields** (on page 197) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRelationshipsResponse

Output: boolean

### DeleteRelationships Operation

Description: Deletes multiple Relationship objects in the database. You can delete up to 1000 Relationship objects with a single call.

**Service: Relationship Service (on page 194)**

Style: Document/literal wrapped

Input:

Message: DeleteRelationships

Elements: One to many ObjectId elements

Output:

Message: DeleteRelationshipsResponse

Output: boolean

### GetFieldLengthRelationship Operation

Description: Returns length of variable character fields for a BO.

**Service:** *Relationship Service (on page 194)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRelationship

Elements: FieldLength

Output:

Message: GetFieldLengthRelationshipResponse

Elements: One to many FieldLengthRelationships.

### Relationship Fields

Field	Type	Read Only	Filterable Orderable	Description
Aref	dateTime	X		The Adjusted Relationship Early Finish where one of the activities of the relationship is in a project which is not present in this database.
Arls	dateTime	X		The Adjusted Relationship Late Start where one of the activities of the relationship is in a project which is not present in this database.
Comments	string restricted to maxLength(250)			The comments entered for the dependency.

CreateDate	dateTime	X	X	The date this dependency was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this dependency.
Driving	boolean	X		The flag indicating if this relationship determines the early dates for the successor activity. LagProjectId is also required when using this field.
IsPredecessorBaseline	boolean	X	X	The flag indicating if the predecessor activity is related to a Project or Baseline
IsPredecessorTemplate	boolean	X	X	The flag indicating if this business object is related to a template Project.
IsSuccessorBaseline	boolean	X	X	The flag indicating if the successor activity is related to a Project or Baseline
IsSuccessorTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
Lag	double		X	The time lag of the relationship. This is the time lag between the predecessor activity's start or finish date and the successor activity's start or

				finish date, depending on the relationship type. The time lag is based on the successor activity's calendar. This value is specified by the project manager and is used by the project scheduler when scheduling activities.
LagProjectId	int	X		The ProjectObjectId for the activity driving the the successor relationship. Optional except when using the Driving field.
LastUpdateDate	dateTime	X	X	The date this dependency was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this dependency.
ObjectId	int		X	The unique ID generated by the system.
PredActIsLongestPath	boolean	X	X	The flag that indicates whether the Predecessor activity is on the longest path.
PredActPercentCompleteType	string restricted to 'Physical' 'Duration' 'Units' 'Scope'		X	The Predecessor activity percent complete type.

PredActualFinishDate	dateTime	X		The date the predecessor activity actually finished.
PredActualStartDate	dateTime	X		The date the predecessor activity actually started.
PredEarlyFinishDate	dateTime	X		The earliest possible date the predecessor activity can finish. This date is computed by the project scheduler based on network logic, schedule constraints, and resource availability.
PredEarlyStartDate	dateTime	X		The earliest possible date the remaining work for the predecessor activity can begin. This date is computed by the project scheduler based on network logic, schedule constraints, and resource availability.
PredFreeFloat	double	X		The amount of time the predecessor activity can be delayed before delaying the start date of any successor activity.



PredLateFinishDate	dateTime	X		The latest possible date the predecessor activity must finish without delaying the project finish date. This date is computed by the project scheduler based on network logic, schedule constraints, and resource availability.
PredLateStartDate	dateTime	X		The latest possible date the remaining work for the predecessor activity must begin without delaying the project finish date. This date is computed by the project scheduler based on network logic, schedule constraints, and resource availability.
PredTotalFloat	double	X		The amount of time the predecessor activity can be delayed before delaying the project finish date. Total float can be computed as late start - early start or as late finish - early finish; this option can be set when running the project scheduler.

PredecessorActivityId	string	X		The activity ID of the predecessor activity.
PredecessorActivityName	string	X		The name of the predecessor activity.
PredecessorActivityObjectId	int		X	The unique ID of the predecessor activity.
PredecessorActivityType	string restricted to 'Task Dependent' 'Resource Dependent' 'Level of Effort' 'Start Milestone' 'Finish Milestone' 'WBS Summary'	X	X	The type of the predecessor activity, either 'Task Dependent', 'Resource Dependent', 'Level of Effort', or 'Milestone'.
PredecessorFinishDate	dateTime			The finish date of the predecessor activity.
PredecessorProjectId	string	X		The project ID of the project that owns the predecessor activity.
PredecessorProjectName	string			The project Name of the project that owns the predecessor activity.
PredecessorProjectObjectId	int	X	X	The unique ID of the project that owns the predecessor activity.

PredecessorStartDate	dateTime	X		The start date of the predecessor activity.
PredecessorWbsName	string restricted to maxLength(100)	X		The name of each WBS element in the predecessor activity.
PredecessorWbsShortName	string restricted to maxLength(40)	X		The WBS Short Name of the predecessor activity.
SuccessorActivityId	string	X		The activity ID of the successor activity.
SuccessorActivityName	string	X		The name of the successor activity.
SuccessorActivityObjectId	int		X	The unique ID of the successor activity.
SuccessorActivityType	string restricted to 'Task Dependent' 'Resource Dependent' 'Level of Effort' 'Start Milestone' 'Finish Milestone' 'WBS Summary'	X	X	The type of the successor activity, either 'Task Dependent', 'Resource Dependent', 'Level of Effort', or 'Milestone'.
SuccessorFinishDate	dateTime			The finish date of the successor activity.

SuccessorProjectId	string	X		The project ID of the project that owns the successor activity.
SuccessorProjectObjectId	int	X	X	The unique ID of the project that owns the successor activity.
SuccessorStartDate	dateTime			The start date of the successor activity.
SuccessorWbsName	string restricted to maxLength(100)			The name of each WBS element in the successor activity.
Type	string restricted to 'Finish to Start' 'Finish to Finish' 'Start to Start' 'Start to Finish'		X	The type of relationship: 'Finish to Start', 'Finish to Finish', 'Start to Start', or 'Start to Finish'.

## ResourceAssignment Service

### Operations:

**CreateResourceAssignments Operation** (on page 205)

**ReadResourceAssignments Operation** (on page 205)

**UpdateResourceAssignments Operation** (on page 206)

**DeleteResourceAssignments Operation** (on page 206)

**ReadAllResourceAssignmentsByWBS Operation** (on page 207)

**GetFieldLengthResourceAssignment Operation** (on page 207)

### WSDL: ResourceAssignment.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceAssignment/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/ResourceAssignmentService?wsdl  
https://<hostname>:<port number>/p6ws/services/ResourceAssignmentService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.resourceassignment.ResourceAssignmentService

**Description:**

Resource assignments track the work of resources or roles that are performing various activities. A resource may be assigned to the same activity more than once, but performing in different roles.

The ResourceAssignment services supports user defined fields (UDFs). Use the UDFValue Service to assign UDFs.

### CreateResourceAssignments Operation

Description: Creates multiple ResourceAssignment objects in the database. You can create up to 1000 ResourceAssignment objects with a single call.

**Service:** *ResourceAssignment Service (on page 204)*

Style: Document/literal wrapped

Input:

Message: CreateResourceAssignments

Elements: ResourceAssignment elements that contain **ResourceAssignment Fields** (on page 208) fields

Required fields: The following fields are required when creating the ResourceAssignment object:

- ▶ ActivityObjectId

and at least one field from the following list:

- ▶ ResourceObjectId
- ▶ RoleObjectId

Output:

Message: CreateResourceAssignmentsResponse

Output: Zero to many ObjectId elements

### ReadResourceAssignments Operation

Description: Reads ResourceAssignment objects from the database.

**Service:** *ResourceAssignment Service (on page 204)*

Style: Document/literal wrapped

Input:

Message: ReadResourceAssignments

Elements: One to many field names from the **ResourceAssignment Fields** (on page 208) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause.

Output:

Message: ReadResourceAssignmentsResponse

Output: Zero to many ResourceAssignment elements that contain **ResourceAssignment Fields** (on page 208) fields.

### UpdateResourceAssignments Operation

Description: Updates multiple ResourceAssignment objects in the database. You can update up to 1000 ResourceAssignment objects with a single call.

**Service:** *ResourceAssignment Service (on page 204)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceAssignments

Elements: ResourceAssignment elements that contain **ResourceAssignment Fields** (on page 208) fields.

Required fields: The Objectid must be specified.

Output:

Message: UpdateResourceAssignmentsResponse

Output: boolean

### DeleteResourceAssignments Operation

Description: Deletes multiple ResourceAssignment objects in the database. You can delete up to 1000 ResourceAssignment objects with a single call.

**Service:** *ResourceAssignment Service (on page 204)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceAssignments

Elements: One to many Objectid elements

Output:

Message: DeleteResourceAssignmentsResponse

Output: boolean

### GetFieldLengthResourceAssignment Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceAssignment Service (on page 204)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceAssignment

Elements: FieldLength

Output:

Message: getFieldLengthResourceAssignmentResponse

Elements: One to many FieldLengthResourceAssignments.

### ReadAllResourceAssignmentsByWBS Operation

Description: Reads ResourceAssignment objects from the database.

**Service:** *ResourceAssignment Service (on page 204)*

Style: Document/literal wrapped

Input:

Message: ReadAllResourceAssignmentsByWBS

Elements:

- ▶ One WBSObjectID element
- ▶ One to many field names from the **ResourceAssignment Fields** (on page 208) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadAllResourceAssignmentsByWBSResponse

Output: Zero to many ResourceAssignment elements that contain **ResourceAssignment Fields** (on page 208) fields.

Note: The Spread element is not included in the response.

### ResourceAssignment Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityActualFinish	dateTime			The date on which the activity was completed.
ActivityId	string restricted to maxLength(40)	X	X	The short ID that uniquely identifies the activity within the project.
ActivityName	string restricted to maxLength(120)	X	X	The name of the activity. The activity name does not have to be unique.
ActivityObjectId	int		X	The unique ID of the activity to which the resource is assigned.
ActivityType	string restricted to 'Task Dependent' 'Resource Dependent' 'Level of Effort' 'Start Milestone' 'Finish Milestone' 'WBS Summary'	X	X	Determines how duration and schedule dates are calculated for an activity.
ActualCost	double		X	The actual non-overtime plus overtime cost for the resource assignment on the activity. Computed as actual cost = actual regular cost + actual overtime cost.
ActualCurve	string		X	The curve applied to Actual Units for the resource assignment.
ActualDuration	double	X		The actual duration for the resource assignment on the activity.



Field	Type	Read Only	Filterable Orderable	Description
ActualFinishDate	dateTime		X	The date the resource actually finished working on the activity.
ActualOvertimeCost	double		X	The actual overtime cost for the resource assignment on the activity. Computed as actual overtime cost = actual overtime units * cost per time * overtime factor.
ActualOvertimeUnits	double		X	The actual overtime units worked by the resource on this activity. This value is computed from timesheets when project actuals are applied or may be entered directly by the project manager.
ActualRegularCost	double		X	The actual non-overtime cost for the resource assignment on the activity. Computed as actual regular cost = actual regular units * cost per time.
ActualRegularUnits	double		X	The actual non-overtime units worked by the resource on this activity. This value is computed from timesheets when project actuals are applied or may be entered directly by the project manager.
ActualStartDate	dateTime		X	The date the resource actually started working on the activity.
ActualThisPeriodCost	double		X	The actual this period cost (will be labor or nonlabor).
ActualThisPeriodUnits	double		X	The actual this period units (hours) (will be labor or nonlabor).

Field	Type	Read Only	Filterable Orderable	Description
ActualUnits	double		X	<p>The actual non-overtime plus overtime units worked by the resource on this activity. This value is computed from timesheets when project actuals are applied or may be entered directly by the project manager. Computed as actual units = actual regular units + actual overtime units.</p>
AssignmentPercentComplete	double			<p>The percent complete of the resource assignment. Required for IPMDAR.</p> <p>If the Activity or Assignment is not started, the Assignment Percent Complete is 0%.</p> <p>If the Activity or Assignment is complete:</p> <ul style="list-style-type: none"> <li>▶ If the Actual Units is zero, Assignment Percent Complete is 0%.</li> <li>▶ If the Actual Units is greater than zero, Assignment Percent Complete is 100%</li> </ul> <p>If the Activity or Assignment is in progress, the calculation depends on the activity percent complete type.</p> <ul style="list-style-type: none"> <li>▶ <b>Units Percent Complete:</b>                      Assignment Percent Complete = Assignment level Actual Units / (Actual Units + Remaining Units) = Assignment level Actual Units / (At Completion Units)</li> <li>▶ <b>Duration Percent Complete:</b>                      Assignment Percent Complete = (Assignment level Planned Duration – Remaining Duration) / Planned Duration</li> <li>▶ <b>Physical Percent Complete:</b>                      Assignment Percent Complete</li> </ul>

Field	Type	Read Only	Filterable Orderable	Description
				= Activity % Complete
AtCompletion Cost	double		X	The sum of the actual plus remaining costs for the resource assignment on the activity.
AtCompletion Duration	double	X		the total working time from the activity's current start date to the current finish date. The current start date is the planned start date until the activity is started, then it is the actual start date. The current finish date is the activity planned finish date while the activity is not started, the remaining finish date while the activity is in progress, and the actual finish date once the activity is completed. The total working time is computed using the activity's calendar.
AtCompletion Units	double		X	The sum of the actual plus remaining units for the resource assignment on the activity.
AutoCompute Actuals	boolean	X	X	The option that determines whether the activity's actual and remaining units, start date, finish date, and percent complete are computed automatically using the planned dates, planned units and the schedule percent complete. If this option is selected, the actual/remaining units and actual dates are automatically updated when project actuals are applied. Use this option to assume that all work for the activity proceeds according to plan.
BudgetAtCompletionCosts	double			The planned total cost through to the completion of the assignment. Calculated as Planned Cost.

Field	Type	Read Only	Filterable Orderable	Description
				Required for IPMDAR.
BudgetAtCompletionUnits	double			The planned total units through to the completion of the assignment. Calculated as Planned Units. Required for IPMDAR.
CBSCode	string			CBS Code.
CBSId	int			The unique Id of CBS.
CalendarName	string	X		The name of the calendar.
CalendarObjectid	int	X	X	The unique ID generated by the system for the calendar associated with the resource assignment.
CostAccountid	string restricted to maxLength(40)	X	X	The id of associated cost account.
CostAccountName	string restricted to maxLength(100)	X	X	The name of the associated cost account.
CostAccountObjectid	int		X	The unique ID of the cost account associated with this resource assignment.
CreateDate	dateTime	X	X	The date this assignment was created.
CreateUser	string	X	X	The name of the user that created this assignment.
DrivingActivityDatesFlag	boolean		X	The flag indicating whether new resource/role assignments drive activity dates, by default.

Field	Type	Read Only	Filterable Orderable	Description
DurationPercentComplete	double	X		The duration percent complete for the assignment. Required for IPMDAR.
EstimateToCompletionCosts	double	X		The estimated cost to complete the assignment. Calculated according to the Technique for computing estimate to complete (ETC) for the WBS. The Project baseline is used for this calculation. Required for IPMDAR.
EstimateToCompletionUnits	double	X	X	The estimated units to complete the assignment. Calculated according to the Technique for computing estimate to complete (ETC) for the WBS. The Project baseline is used for this calculation. Required for IPMDAR.
FinancialPeriodTmpId	int		X	The unique identifier of the financial period calendar assigned to the project.
FinishDate	dateTime			The finish date of the resource assignment on the activity. Set to the remaining finish date until the activity is completed, then set to the actual finish date.
GUID	string restricted to pattern '\{[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}\}'		X	The globally unique ID generated by the system.
HasFutureBucketData	boolean	X	X	The flag that indicates whether the assignment has future bucket data.
IsActive	boolean	X	X	The flag that indicates whether this resource assignment is active.

Field	Type	Read Only	Filterable Orderable	Description
IsActivityFlagged	boolean		F	The flag that indicates whether the resource who is assigned to the activity assignment has flagged the activity as important to the resource.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsCostUnitsLinked	boolean		X	The flag that determines whether or not cost should be calculated based on units.
IsOvertimeAllowed	boolean	X	X	The flag that indicates whether the resource is allowed to log overtime hours.
IsPrimaryResource	boolean			The flag that indicates whether this resource is the activity's primary resource.
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this assignment was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this assignment.
ObjectId	int		X	The unique ID generated by the system.
OvertimeFactor	double restricted to minInclusive(0.0) maxInclusive(10.0)		X	The overtime factor used to compute the overtime price for the resource assignment on this activity. Overtime price = standard price * overtime factor. When the resource is assigned to the activity, the resource's overtime

Field	Type	Read Only	Filterable Orderable	Description
				factor is copied to the assignment. The assignment overtime factor is refreshed from the resource value when resource prices are synchronized for the project.
PendingActualOvertimeUnits	double	X	X	The actual overtime units worked by the resource on this activity. This value is computed from values entered by a user in the Progress Reporter application and is applied to the resource assignment when the Apply Actuals service is invoked.
PendingActualRegularUnits	double	X	X	The actual nonovertime units worked by the resource on this activity. This value is computed from values entered by a user in the Progress Reporter application and is applied to the resource assignment when the Apply Actuals service is invoked.
PendingPercentComplete	double		X	The estimate of the percentage of the resource's units of work completed on this activity. The pending percent complete is entered by each resource using Timesheets. This value is used to compute the resource's remaining units for the activity when project actuals are applied. The project manager specifies whether resources update their percent complete or remaining units for each project.
PendingRemainingUnits	double		X	The estimate of the resource's remaining units on this activity. The pending remaining units is entered by each resource using Timesheets. This value is copied to the resource's remaining units for the activity when project actuals are applied. The project

Field	Type	Read Only	Filterable Orderable	Description
				manager specifies whether resources update their percent complete or remaining units for each project.
PercentComplete	double	X		The percentage complete for the assignment. Required for IPMDAR.
PercentCompleteType	string restricted to 'Physical' 'Duration' 'Units' 'Scope'			The percent complete type for the assignment. Required for IPMDAR.
PlannedCost	double		X	The planned cost for the resource assignment on the activity. Computed as planned cost = planned units * price per time. This field is named BudgetedCost in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
PlannedCurve	string		X	The curve applied to Planned Units for the resource assignment.
PlannedDuration	double			The planned working time for the resource assignment on the activity, from the resource's planned start date to the planned finish date. This field is named BudgetedDuration in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.



Field	Type	Read Only	Filterable Orderable	Description
PlannedFinish Date	dateTime		X	The date the resource is scheduled to finish working on the activity. This date is computed by the project scheduler but can be updated manually by the project manager. This date is not changed by the project scheduler after the activity has been started. This is the finish date that Timesheets users follow and schedule variance is measured against.
PlannedLag	double restricted to minInclusive(0.0)		X	The planned time lag between the activity's planned start date and the resource's planned start date on the activity. If the resource is planned to start work when the activity is planned to start, the planned lag is zero. This field is named BudgetedLag in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
PlannedStart Date	dateTime		X	The date the resource is scheduled to begin working on the activity. This date is computed by the project scheduler but can be updated manually by the project manager. This date is not changed by the project scheduler after the activity has been started. This is the start date that Timesheets users follow and schedule variance is measured against.
PlannedUnits	double		X	The planned units of work for the resource assignment on the activity. This field is named BudgetedUnits in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.

Field	Type	Read Only	Filterable Orderable	Description
PlannedUnitsPerTime	double		X	The planned units per time at which the resource is to perform work on this activity. For example, a person assigned full time would perform 8 hours of work per day. A department of five people may perform at 5 days per day. This field is named BudgetedUnitsPerTime in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
PricePerUnit	double restricted to minInclusive(0.0)			The price per time for the resource on this activity. This price is used to compute the resource's cost for the activity. When the resource is assigned to the activity, the resource's price is copied to the assignment based on the effective date of the price and the activity start date. The assignment price is refreshed whenever resource prices are synchronized for the project.
PriorActualOvertimeUnits	double	X	X	The difference between the pending quantity value and the actual quantity value for overtime before applying the new actual value.
PriorActualRegularUnits	double	X	X	The difference between the pending quantity value and the actual quantity value before applying the new actual value.
Proficiency	string restricted to '1 - Master' '2 - Expert' '3 - Skilled' '4 - Proficient' '5 - Inexperienced'			The skill level that is associated with the role. The values are 'Master', 'Expert', 'Skilled', 'Proficient', and 'Inexperienced'. If the current user does not have the ViewResourceRoleProficiency global security privilege, this field may not be accessed.

Field	Type	Read Only	Filterable Orderable	Description
ProjectFlag	string	X	X	Indicates if this WBS node is a Project/EPS node.
ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the project.
ProjectName	string	X	X	The name of the associated project.
ProjectObjectId	int	X	X	The unique ID of the associated project.
ProjectProjectFlag	string	X	X	Indicates if this Project/EPS nose is a Project or EPS.
RateSource	string restricted to 'Resource' 'Role' 'Override'		X	The value that indicates which price/unit will be used to calculate costs for the assignment, such as 'Resource', 'Role', and 'Override'. When a resource and only a resource is assigned to an activity, the rate source will automatically equal 'Resource'. When a role and only a role is assigned to an activity, the rate source will automatically equal 'Role'. When both a resource and role are assigned to the activity, the rate source can be either 'Resource' or 'Role' determined by the RateSourcePreference. In any case, the 'Override' value allows you to specify any other price/unit.
RateType	string restricted to 'Price / Unit' 'Price / Unit 2' 'Price / Unit 3' 'Price / Unit 4' 'Price / Unit 5'		X	The rate type that determines which of the five prices specified for the resource will be used to calculate the cost for the resource assignment. Valid values are 'Price / Unit', 'Price / Unit2', 'Price / Unit3', 'Price / Unit4', 'Price / Unit5', and 'None'.

Field	Type	Read Only	Filterable Orderable	Description
RemainingCost	double		X	The remaining cost for the resource assignment on the activity. Computed as remaining cost = remaining units * cost per time.
RemainingCurve	string		X	The curve applied to Remaining Units for the resource assignment.
RemainingDuration	double restricted to minInclusive(0.0)			The remaining duration of the resource assignment. The remaining duration is the remaining working time for the resource assignment on the activity, from the resource's remaining start date to the remaining finish date. The remaining working time is computed using the calendar determined by the activity Type. Resource Dependent activities use the resource's calendar, other activity types use the activity's calendar. Before the activity is started, the remaining duration is the same as the Original duration. After the activity is completed, the remaining duration is zero.
RemainingFinishDate	dateTime		X	The date the resource is scheduled to finish the remaining work for the activity. This date is computed by the project scheduler but can be updated manually by the project manager. Before the activity is started, the remaining finish date is the same as the planned finish date.
RemainingLag	double restricted to minInclusive(0.0)			The time lag between the activity's remaining start date and the resource's remaining start date on the activity. If the resource's remaining work starts on the activity's remaining start date, the

Field	Type	Read Only	Filterable Orderable	Description
				lag is zero. Before the activity is started, the remaining lag is the same as the planned lag.
RemainingLateFinishDate	dateTime	X	X	The remaining late finish date calculated by the scheduler.
RemainingLateStartDate	dateTime	X	X	The remaining late start date calculated by the scheduler.
RemainingStartDate	dateTime		X	The date the resource is scheduled to begin the remaining work for the activity. This date is computed by the project scheduler but can be updated manually by the project manager. Before the activity is started, the remaining start date is the same as the planned start date.
RemainingUnits	double		X	The remaining units of work to be performed by this resource on this activity. Before the activity is started, the remaining units are the same as the planned units. After the activity is completed, the remaining units are zero.
RemainingUnitsPerTime	double		X	The units per time at which the resource will be performing work on the remaining portion of this activity. For example, a person assigned full time would perform 8 hours of work per day. A department of five people may perform at 5 days per day.
ResourceCalendarName	string	X	X	The name of the calendar for the resource.
ResourceCurveName	string restricted to	X	X	The name of the resource curve that determines how resources and costs are distributed over

Field	Type	Read Only	Filterable Orderable	Description
	maxLength(60)			time for this activity.
ResourceCurveObjectId	int		X	The unique ID of the resource curve.
ResourceId	string restricted to maxLength(255)	X	X	The short code that uniquely identifies the resource.
ResourceName	string restricted to maxLength(255)	X	X	The name of the resource.
ResourceObjectId	int		X	The unique ID of the associated resource.
ResourceType	string restricted to 'Labor', 'Nonlabor', 'Material'		X	The resource type: "Labor", "Nonlabor", or "Material".
ReviewRequired	boolean			Determines if all new activities added to the project require approval.
RoleId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the role.
RoleName	string restricted to maxLength(100)	X	X	The name of the role. The role name uniquely identifies the role.
RoleObjectId	int		X	The unique ID of the role the resource is performing on this activity. A resource may be assigned to the same activity more than once, performing different roles. The project

Field	Type	Read Only	Filterable Orderable	Description
				manager controls whether the same resource can be assigned to an activity more than once.
RoleShortName	string restricted to maxLength(40)		X	The short code that uniquely identifies a role.
StaffedRemainingCost	double	X		The time distribution of the resource's remaining cost for resource assignments that have filled a role.
StaffedRemainingUnits	double	X		The time distribution of the resource's remaining units for resource assignments that have filled a role.
StartDate	dateTime			The start date of the resource assignment on the activity. Set to the remaining start date until the activity is started, then set to the actual start date.
StatusCode	string restricted to 'Planned' 'Active' 'Inactive' 'What-If' 'Requested' 'Template'	X	X	The project status, either 'Planned', 'Active', 'Inactive', 'What-If', 'Requested', or 'Template'.
TotalPastPeriodCost	double			The total stored period cost for each assignment.
TotalPastPeriodUnits	double			The total stored period units for each assignment.
UnitsPercentComplete	double			The percent complete of units for the resource assignment on the activity. Computed as actual units / at completion units * 100. Always in the range 0 to 100.

Field	Type	Read Only	Filterable Orderable	Description
UnreadCommentCount	int	X		The total number of unread comments on this activity for a user.
UnstaffedRemainingCost	double	X		The time distribution of the resource's remaining cost for resource assignments that have not filled a role.
UnstaffedRemainingUnits	double	X		The time distribution of the resource's remaining units for resource assignments that have not filled a role.
WBSNamePath	string	X		The hierarchy of the parent WBS Names. WBS Names are listed in order from parent to child and hierarchical levels are separated by dots. For example: WBS_Name_1A.WBS_Name_2A. WBS_Name_3A
WBSObjectID	int	X	X	The unique ID of the WBS for the activity.
UDF	UDFAssignmentType See UDFAssignment Table below.			
Spread	ResourceAssignmentSpreadType See ResourceAssignmentSpreadType Table below.			
ResourceRequest	ResourceRequestType See the ResourceRequest table below			The resource request used as a search template to search for a qualified resource.



**UDFAssignment Table**

TypeObjectI d	int
CodeObjectI d	int
CostValue	double
IntegerValu e	int
IndicatorVal ue	string restricted to 'None' 'Red' 'Yellow' 'Green' 'Blue'
DoubleValu e	double
TextValue	string
StartDateVa lue	dateTime
FinishDateV alue	dateTime

**ResourceAssignmentSpreadType Table**

StartDate	dateTime
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EndDate	dateTime
PeriodType	string restricted to Hour Day Week Month Quarter Year Financial Period

**Period Table**

StartDate	dateTime
EndDate	dateTime
ActualOvertimeUnits	double
CumulativeActualOvertimeUnits	double
ActualRegularUnits	double
CumulativeActualRegularUnits	double
ActualUnits	double
CumulativeActualUnits	double
AtCompletionUnits	double

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CumulativeAtCompletionUnits	double
PlannedUnits	double
CumulativePlannedUnits	double
RemainingLateUnits	double
CumulativeRemainingLateUnits	double
RemainingUnits	double
CumulativeRemainingUnits	double
StaffedRemainingLateUnits	double
CumulativeStaffedRemainingLateUnits	double
StaffedRemainingUnits	double
CumulativeStaffedRemainingUnits	double
UnstaffedRemainingLateUnits	double
CumulativeUnstaffedRemainingLateUnits	double

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UnstaffedRemainingUnits	double
CumulativeUnstaffedRemainingUnits	double
ActualCost	double
CumulativeActualCost	double
ActualOvertimeCost	double
CumulativeActualOvertimeCost	double
ActualRegularCost	double
CumulativeActualRegularCost	double
AtCompletionCost	double
CumulativeAtCompletionCost	double
PlannedCost	double
CumulativePlannedCost	double
RemainingCost	double
CumulativeRemainingCost	double

RemainingLateCost	double
CumulativeRemainingLateCost	double
StaffedRemainingCost	double
CumulativeStaffedRemainingCost	double
StaffedRemainingLateCost	double
CumulativeStaffedRemainingLateCost	double
UnstaffedRemainingCost	double
CumulativeUnstaffedRemainingCost	double
UnstaffedRemainingLateCost	double
CumulativeUnstaffedRemainingLateCost	double

### ResourceRequest Table

FinishDate	dateTime
MatchAllCriteria	boolean
Name	string

RequestedUnits	double
SequenceNumber	int
ShowOnlyLaborResources	boolean
ShowOverallocatedResources	boolean
SortResultsByAvailability	boolean
StartDate	dateTime
UseActivityDates	boolean
ResourceRequestCriterion	<ul style="list-style-type: none"> <li>▶ CriterionType string restricted to 'Primary Role', 'Role', 'Resource', 'Resource Code'</li> <li>▶ Proficiency string restricted to '1 - Master', '2 - Expert', '3 - Skilled', '4 - Proficient', '5 - Inexperienced'</li> <li>▶ ValueObjectId int</li> </ul>

## ResourceAssignmentCodeAssignment Service

### Operations:

***CreateResourceAssignmentCodeAssignments Operation*** (on page 231)

***ReadResourceAssignmentCodeAssignments Operation*** (on page 232)  
***UpdateResourceAssignmentCodeAssignments Operation*** (on page 232)  
***DeleteResourceAssignmentCodeAssignments Operation*** (on page 232)  
***GetFieldLengthResourceAssignmentCodeAssignment Operation*** (on page 233)

### WSDL: ResourceAssignmentCodeAssignment.wsdl

Primary Key Field: ObjectId

Target Namespace:

http://xmlns.oracle.com/Primavera/P6/WS/ResourceAssignmentCodeAssignment/V1

Default Transport URLs:

http://<hostname>:<port  
number>/p6ws/services/ResourceAssignmentCodeAssignmentService?wsdl  
https://<hostname>:<port  
number>/p6ws/services/ResourceAssignmentCodeAssignmentService?wsdl

### Java Client Stub Class:

com.primavera.ws.p6.resourceassignmentcodeassignment.ResourceAssignmentCodeAssignmentService

### Description:

An assignment code assignment business object represents the assignment of an assignment code to a resource or role assignment. For each assignment code type, an assignment may have zero or one assignment codes assigned.

Note that this business object has a multi-part object ID; its object ID is a combination of its resource assignment object ID and its resource assignment code object ID.

### CreateResourceAssignmentCodeAssignments Operation

Description: Creates multiple ResourceAssignmentCodeAssignment objects in the database. You can create up to 1000 ResourceAssignmentCodeAssignment objects with a single call.

**Service:** *ResourceAssignmentCodeAssignment Service* (on page 230)

Style: Document/literal wrapped

Input:

Message: CreateResourceAssignmentCodeAssignments  
Elements: ResourceAssignmentCodeAssignment elements that contain  
***ResourceAssignmentCodeAssignment Fields*** (on page 233) fields

Required fields:

- ▶ ResourceAssignmentObjectId
- ▶ ResourceAssignmentCodeTypeObjectId

Output:

Message: CreateResourceAssignmentCodeAssignmentsResponse

Output: Zero to many ObjectID elements

### ReadResourceAssignmentCodeAssignments Operation

Description: Reads ResourceAssignmentCodeAssignment objects from the database.

**Service:** *ResourceAssignmentCodeAssignment Service (on page 230)*

Style: Document/literal wrapped

Input:

Message: ReadResourceAssignmentCodeAssignments

Elements: One to many field names from the **ResourceAssignmentCodeAssignment Fields** (on page 233) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceAssignmentCodeAssignmentsResponse

Output: Zero to many ResourceAssignmentCodeAssignment elements that contain **ResourceAssignmentCodeAssignment Fields** (on page 233).

### UpdateResourceAssignmentCodeAssignments Operation

Description: Updates multiple ResourceAssignmentCodeAssignment objects in the database. You can update up to 1000 ResourceAssignmentCodeAssignment objects with a single call.

**Service:** *ResourceAssignmentCodeAssignment Service (on page 230)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceAssignmentCodeAssignments

Elements: ResourceAssignmentCodeAssignment elements that contain **ResourceAssignmentCodeAssignment Fields** (on page 233) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateResourceAssignmentCodeAssignmentsResponse

Output: boolean

### DeleteResourceAssignmentCodeAssignments Operation

Description: Deletes multiple ResourceAssignmentCodeAssignment objects in the database. You can delete up to 1000 ResourceAssignmentCodeAssignment objects with a single call.



**Service: ResourceAssignmentCodeAssignment Service (on page 230)**

Style: Document/literal wrapped

Input:

Message: DeleteResourceAssignmentCodeAssignments

Elements: One to many ObjectID elements

Output:

Message: DeleteResourceAssignmentCodeAssignmentsResponse

Output: boolean

**GetFieldLengthResourceAssignmentCodeAssignment Operation**

Description: Returns length of variable character fields for a BO.

**Service: ResourceAssignmentCodeAssignment Service (on page 230)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceAssignmentCodeAssignment

Elements: FieldLength

Output:

Message: GetFieldLengthResourceAssignmentCodeAssignmentResponse

Elements: One to many FieldLengthResourceAssignmentCodeAssignments.

**ResourceAssignmentCodeAssignment Fields**

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this code assignment was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this code assignment.
LastUpdateDate	dateTime	X	X	The date this code assignment was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this code

	55)			assignment.
ResourceAssignmentCodeDescription	string restricted to maxLength(100)	X	X	The description of the associated code.
ResourceAssignmentCodeObjectId	int		X	The unique ID of the associated code.
ResourceAssignmentCodeTypeName	string restricted to maxLength(40)	X	X	The name of the parent code type.
ResourceAssignmentCodeTypeObjectId	int	X	X	The unique ID of the parent code type.
ResourceAssignmentCodeValue	string restricted to maxLength(40)	X	X	The value of the associated code.
ResourceAssignmentCodeObjectId	int	X	X	The object ID of the associated resource or role assignment.

## ResourceAssignmentCreate Service

### Operations:

**CreateResourceAssignmentCreate Operation** (on page 235)

**ReadResourceAssignmentCreate Operation** (on page 235)

**UpdateResourceAssignmentCreate Operation** (on page 236)

**DeleteResourceAssignmentCreate Operation** (on page 236)

**GetFieldLengthResourceAssignmentCreate Operation** (on page 236)

### WSDL: ResourceAssignmentCreate.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceAssignmentCreate/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/ResourceAssignmentCreateService?wsdl  
https://<hostname>:<port number>/p6ws/services/ResourceAssignmentCreateService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.userfieldtitle.ResourceAssignmentCreateService

**Description**

Create resource assignments to track the work of resources or roles that perform various activities. The pending number of units, finish date, start date, and duration of a resource assignment may need approval to be overridden so that the resource assignment can reflect its actual values.

### CreateResourceAssignmentCreate Operation

Description: Creates multiple ResourceAssignmentCreate objects in the database. You can create up to 1000 ResourceAssignmentCreate objects with a single call.

**Service:** *ResourceAssignmentCreate Service (on page 234)*

Style: Document/literal wrapped

Input:

Message: CreateResourceAssignmentCreates

Elements: ResourceAssignmentCreate elements that contain ResourceAssignmentCreate Fields fields

Required fields: The following fields are required when creating the ResourceAssignmentCreate object:

- ▶ ResourceObjectId
- ▶ ActivityObjectId

Output:

Message: CreateResourceAssignmentsResponse

Output: Zero to many ObjectId elements

### ReadResourceAssignmentCreate Operation

Description: Reads ResourceAssignmentCreate objects from the database.

**Service:** *ResourceAssignmentCreate Service (on page 234)*

Style: Document/literal wrapped

Input:

Message: ReadResourceAssignmentCreates

Elements: One to many field names from the ResourceAssignmentCreate Fields field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause.

Output:

Message: ReadResourceAssignmentCreatesResponse

Output: Zero to many ResourceAssignmentCreate elements that contain ResourceAssignmentCreate Fields fields.

### UpdateResourceAssignmentCreate Operation

Description: Updates multiple ResourceAssignmentCreate objects in the database. You can update up to 1000 ResourceAssignmentCreate objects with a single call.

**Service:** *ResourceAssignmentCreate Service (on page 234)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceAssignmentCreates

Elements: ResourceAssignmentCreate elements that contain ResourceAssignmentCreate Fields fields.

Required fields: ResourceAssignmentCreateObjectId

Output:

Message: UpdateResourceAssignmentCreatesResponse

Output: boolean

### DeleteResourceAssignmentCreate Operation

Description: Deletes multiple ResourceAssignmentCreate objects in the database. You can delete up to 1000 ResourceAssignmentCreate objects with a single call.

**Service:** *ResourceAssignmentCreate Service (on page 234)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceAssignmentCreates

Elements: One to many ObjectId elements

Output:

Message: DeleteResourceAssignmentCreatesResponse

Output: boolean

### GetFieldLengthResourceAssignmentCreate Operation

Description: Returns length of variable character fields for a BO.

**Service: ResourceAssignmentCreate Service (on page 234)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceAssignmentCreate

Elements: FieldLength

Output:

Message: GetFieldLengthResourceAssignmentCreateResponse

Elements: One to many FieldLengthResourceAssignmentCreates.

**ResourceAssignmentCreate Fields**

Field	Type	Read Only	Filterable Orderable	Description
ActivityObjectId	int		X	The unique ID of the activity to which the associated assignment is assigned.
ActualFinishDate	dateTime		X	The date the resource actually finished working on the activity.
ActualStartDate	dateTime		X	The date the resource actually started working on the activity.
ActualUnits	double restricted to minInclusive(0.0)		X	The actual units worked by the resource on this activity.
AssignmentIsRead	string restricted to maxLength(10)		X	To determine whether or not the newly created assignment from P6 Team Member Web is viewed by the manager in the Control Status Update.
ChangeSetObjectId	int	X	X	The unique ID of the associated Changeset.
Date	dateTime	X	X	The date of the transaction.

ProjectObjectId	int	X	X	The unique identifier of the project that is associated with the ResourceAssignmentCreate object.
Remaining Duration	double restricted to minInclusive(0.0)	X	X	The remaining duration of the resource assignment.
ReamainingFinishDate	dateTime	X	X	The remaining finish date for the resource working on the activity.
RemainingUnits	double restricted to minInclusive(0.0)	X	X	The remaining units of work to be performed by this resource on this activity.
RequestUserId	int	X	X	The unique ID of the user modifying the task, assignment or step.
ResourceAssignmentCreateObjectId	int	X	X	The unique identifier of the ResourceAssignment that is associated to the ResourceAssignmentCreate.
ResourceAssignmentObjectId	int	X	X	The unique identifier of the ResourceAssignment that is associated with ResourceAssignmentCreate object.
ResourceObjectId	int		X	The unique identifier of the associated resource.
Status	string restricted to 'Pending' 'Held' 'Approved' 'Rejected' 'Partially Approved' 'Withdrawn'		X	The status of the resource assignment.

## ResourceAssignmentPeriodActual Service

### Operations:

**CreateResourceAssignmentPeriodActuals Operation** (on page 240)

**ReadResourceAssignmentPeriodActuals Operation** (on page 240)

**UpdateResourceAssignmentPeriodActuals Operation** (on page 241)

**DeleteResourceAssignmentPeriodActuals Operation** (on page 241)

**GetFieldLengthResourceAssignmentPeriodActual Operation** (on page 241)

### WSDL: ResourceAssignmentPeriodActual.wsdl

Primary Key Field: ObjectId

Target Namespace:

<http://xmlns.oracle.com/Primavera/P6/WS/ResourceAssignmentPeriodActual/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceAssignmentPeriodActualService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ResourceAssignmentPeriodActualService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resourceassignmentperiodactual.ResourceAssignmentPeriodActualService`

### Description:

Resource assignment period actuals represent the actual values on a resource assignment during a financial period.

The following rules apply for resource assignment period actuals:

- ▶ They can only be tracked for in-progress or completed activities.
- ▶ Negative values are allowed.
- ▶ If both units and costs are simultaneously updated on a period actual instance, units are the driving value.
- ▶ They must have at least one non-zero field value for a corresponding database record to exist
- ▶ If activity period actuals exist and have valid values for a particular resource type, resource assignment period actuals are created automatically for the first assignment of the corresponding resource type. Thereafter, period actuals can only be tracked on the resource assignment, not at the activity level.
- ▶ Costs can be calculated only when a resource price per unit is defined
- ▶ Updating values in assignment period actuals should update the corresponding activity period values. However, for material resource assignments, the update to activity period actuals occurs only when material cost is changed on the assignment.

- ▶ Creating an assignment period actual value results in the automatic creation of an activity period actual value if it does not already exist.
- ▶ An activity period actual may not exist for a corresponding assignment period actual if only material units are being tracked in the assignment period actual instance.

Note that this business object has a multi-part object ID; its object ID is a combination of its financial period object ID and its resource assignment object ID.

### CreateResourceAssignmentPeriodActuals Operation

Description: Creates multiple ResourceAssignmentPeriodActual objects in the database. You can create up to 1000 ResourceAssignmentPeriodActual objects with a single call.

**Service:** *ResourceAssignmentPeriodActual Service (on page 239)*

Style: Document/literal wrapped

Input:

Message: CreateResourceAssignmentPeriodActuals

Elements: ResourceAssignmentPeriodActual elements that contain **ResourceAssignmentPeriodActual Fields** (on page 242) fields

Required fields: The following fields are required when creating the ResourceAssignmentPeriodActual object:

- ▶ ResourceAssignmentObjectId
- ▶ FinancialPeriodObjectId
- ▶ ActualUnits|ActualCost

Output:

Message: CreateResourceAssignmentPeriodActualsResponse

Output: Zero to many ObjectId elements

### ReadResourceAssignmentPeriodActuals Operation

Description: Reads ResourceAssignmentPeriodActual objects from the database.

**Service:** *ResourceAssignmentPeriodActual Service (on page 239)*

Style: Document/literal wrapped

Input:

Message: ReadResourceAssignmentPeriodActuals

Elements: One to many field names from the **ResourceAssignmentPeriodActual Fields** (on page 242) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.



**Output:**

Message: ReadResourceAssignmentPeriodActualsResponse

Output: Zero to many ResourceAssignmentPeriodActual elements that contain ResourceAssignmentPeriodActual fields.

**UpdateResourceAssignmentPeriodActuals Operation**

Description: Updates multiple ResourceAssignmentPeriodActual objects in the database. You can update up to 1000 ResourceAssignmentPeriodActual objects with a single call.

**Service:** *ResourceAssignmentPeriodActual Service (on page 239)*

Style: Document/literal wrapped

**Input:**

Message: UpdateResourceAssignmentPeriodActuals

Elements: ResourceAssignmentPeriodActual elements that contain **ResourceAssignmentPeriodActual Fields** (on page 242) fields.

Required fields: The ObjectId must be specified.

**Output:**

Message: UpdateResourceAssignmentPeriodActualsResponse

Output: boolean

**DeleteResourceAssignmentPeriodActuals Operation**

Description: Deletes multiple ResourceAssignmentPeriodActual objects in the database. You can delete up to 1000 ResourceAssignmentPeriodActual objects with a single call.

**Service:** *ResourceAssignmentPeriodActual Service (on page 239)*

Style: Document/literal wrapped

**Input:**

Message: DeleteResourceAssignmentPeriodActuals

Elements: One to many ObjectId elements

**Output:**

Message: DeleteResourceAssignmentPeriodActualsResponse

Output: boolean

**GetFieldLengthResourceAssignmentPeriodActual Operation**

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceAssignmentPeriodActual Service (on page 239)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceAssignmentPeriodActual

Elements: FieldLength

Output:

Message: GetFieldLengthResourceAssignmentPeriodActualResponse

Elements: One to many FieldLengthResourceAssignmentPeriodActuals.

**ResourceAssignmentPeriodActual Fields**

Field	Type	Read Only	Filterable Orderable	Description
ActivityObjectId	int	X	X	The unique ID of the associated activity.
ActualCost	double		X	The actual cost on this resource assignment during a financial period.
ActualUnits	double		X	The actual units on this resource assignment during a financial period.
CreateDate	dateTime	X	X	The date this resource assignment period actual was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this resource assignment period actual.
FinancialPeriodObjectId	int		X	The unique ID of the associated financial period.
FinancialPeriodTemplateId	int		X	The id of the financial period template to which the financial period belongs.

IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this resource assignment period actual was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this resource assignment period actual.
ProjectObjectId	int	X	X	The unique ID of the associated project.
ResourceAssignmentObjectId	int		X	The unique ID of the associated resource assignment.
ResourceType	string restricted to "Labor" 'Nonlabor' 'Material'	X	X	The resource type: "Labor", "Nonlabor", or "Material".
WBSObjectId	int	X	X	The unique ID of the WBS for the associated activity.

## ResourceAssignmentUpdate Service

### Operations:

**CreateResourceAssignmentUpdates Operation** (on page 244)

**ReadResourceAssignmentUpdates Operation** (on page 245)

**UpdateResourceAssignmentUpdates Operation** (on page 245)

**DeleteResourceAssignmentUpdates Operation** (on page 245)

**GetFieldLengthResourceAssignmentUpdate Operation** (on page 246)

### WSDL: ResourceAssignmentUpdate.wsdl

Primary Key: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceAssignmentUpdate/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceAssignmentUpdate?wsdl>

<https://<hostname>:<port number>/p6ws/services/ResourceAssignmentUpdate?wsdl>

### Java Client Stub Class

`com.primavera.ws.p6.resourceassignmentupdate.ResourceAssignmentUpdate`

### Description:

Resource assignments track the work of resources or roles that are performing various activities. The pending number of units, finish date, start date, and duration of a resource assignment may need approval to be overridden so that the resource assignment can reflect its actual values.

## CreateResourceAssignmentUpdates Operation

Description: Creates multiple ResourceAssignmentUpdate objects in the database. You can create up to 1000 ResourceAssignmentUpdate objects with a single call.

**Service:** ResourceAssignmentUpdate Service (on page 244)

Style: Document/literal wrapped

Input:

Message: CreateResourceAssignmentUpdates

Elements: One to many field names from the **ResourceAssignmentUpdate Fields** (on page 246) field list.

Required fields:

ResourceAssignmentObjectId

ChangeSetObjectId

Output:

Message: CreateResourceAssignmentUpdatesResponse

Output: Zero to many ObjectId elements

### ReadResourceAssignmentUpdates Operation

Description: Reads ResourceAssignmentUpdate objects from the database.

**Service:** ResourceAssignmentUpdate Service (on page 244)

Style: Document/literal wrapped

Input:

Message: ReadResourceAssignmentUpdates

Elements: One to many field names from the **ResourceAssignmentUpdate Fields** (on page 246) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ResourceAssignmentUpdatesResponse

Output: Zero to many ResourceAssignmentUpdate elements that contain ResourceAssignmentUpdate fields.

### UpdateResourceAssignmentUpdates Operation

Description: Updates multiple ResourceAssignmentUpdate objects in the database. You can update up to 1000 ResourceAssignmentUpdate objects with a single call.

**Service:** ResourceAssignmentUpdate Service (on page 244)

Style: Document/literal wrapped

Input:

Message: UpdateResourceAssignmentUpdates

Elements: One to many field names from the **ResourceAssignmentUpdate Fields** (on page 246) field list.

Output:

Message: UpdateResourceAssignmentUpdatesResponse

Output: boolean

### DeleteResourceAssignmentUpdates Operation

Description: Deletes multiple ResourceAssignmentUpdate objects in the database. You can delete up to 1000 ResourceAssignmentUpdate objects with a single call.

**Service: ResourceAssignmentUpdate Service (on page 244)**

Style: Document/literal wrapped

Input:

Message: DeleteResourceAssignmentUpdates

Elements: One to many ObjectId elements

Output:

Message: DeleteResourceAssignmentUpdatesResponse

Output: boolean

**GetFieldLengthResourceAssignmentUpdate Operation**

Description: Returns length of variable character fields for a BO.

**Service: ResourceAssignmentUpdate Service (on page 244)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceAssignmentUpdate

Elements: FieldLength

Output:

Message: GetFieldLengthResourceAssignmentUpdateResponse

Elements: One to many FieldLengthResourceAssignmentUpdates.

**ResourceAssignmentUpdate Fields**

Field	Type	Read Only	Filterable Orderable	Description
ActivityObjectId	int		x	The unique ID of the activity to which the activity code is assigned.
ApprovalDate	dateTime		x	The date that the activity was approved.
ApprovalUserName	string restricted to maxLength(255)			The username of the approved user.

ApprovalUserObjectID	int		x	The unique ID generated by the system for the approved user.
ChangeSetObjectID	int			The unique ID generated by the system for the change set object.
Date	dateTime		x	The date of the resource assignment update.
HeldDate	dateTime		x	The date of the held resource assignment.
OverrideActualFinishDate	dateTime		x	The actual finish date for an override activity.
OverrideActualStartDate	dateTime		x	The actual start date for an override activity.
OverrideActualUnits	double restricted to minInclusive(0.0)		x	The number of units for an override activity.
OverrideRemainingDuration	double restricted to minInclusive(0.0)		x	The remaining duration for an override activity.
OverrideRemainingFinishDate	dateTime		x	The date that the override activity finishes.
OverrideRemainingStartDate	dateTime		x	The date that the override activity starts.
OverrideRemainingUnits	double restricted to minInclusive(0.0)		x	The overridden new remaining units of work to be performed by this resource on this activity.

PendingActualFinishDate	dateTime		x	The date on which the pending activity actually finishes if approval is required.
PendingActualStartDate	dateTime		x	The date on which the pending activity actually starts if approval is required.
PendingActualUnits	double restricted to minInclusive(0.0)		x	The actual number of units associated with the the pending activity if approval is required.
PendingRemainingDuration	double restricted to minInclusive(0.0)		x	The remaining duration that is required to finish a pending activity if approval is required.
PendingRemainingFinishDate	dateTime		x	The remaining finish date of a pending activity if approval is required.
PendingRemainingUnits	double restricted to minInclusive(0.0)		x	The remaining number of units associated with a pending activity if approval is required.
ProjectObjectId	int	x	x	The unique ID of the associated project.
RejectedBy	string (maximum 255 characters)	x	x	The User Name of the user who rejected the status update.
RejectedDate	dateTime	x	x	The date and time the status update was rejected.
RequestUserId	int		x	The unique ID of the user modifying the task, assignment, or step.



ResourceAssignmentObjectID	int			The unique identifier for the ResourceAssignment. You can specify one or more ResourceAssignmentObjectID.
ResubmittedBy	string (max 255 characters)	x	x	The User Name of the user who resubmitted the status update.
ResubmittedDate	dateTime	x	x	The date and time the status update was resubmitted.
Status	string restricted to 'Pending' 'Held' 'Approved' 'Partially Approved' 'Withdrawn'		x	The status of this budget change request. Possible values are 'Pending', 'Held', 'Approved', and 'Partially Approved'.

## AdminCategory Services

### BaselineType Service

#### Operations:

**CreateBaselineTypes Operation** (on page 250)

**ReadBaselineTypes Operation** (on page 250)

**UpdateBaselineTypes Operation** (on page 251)

**DeleteBaselineTypes Operation** (on page 251)

**GetFieldLengthBaselineType Operation** (on page 251)

#### WSDL: BaselineType.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/BaselineType/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/BaselineTypeService?wsdl>

<https://<hostname>:<port number>/p6ws/services/BaselineTypeService?wsdl>

### Java Client Stub Class:

com.primavera.ws.p6.baselinetype.BaselineTypeService

### Description:

Since the large number of baselines per project could be challenging to maintain, baseline types are introduced to help categorize, or track, multiple baselines for a single project. By assigning a type to a baseline that reflects its purpose, baseline types help you to maintain or track a large number of baselines in a project. For example, you could use the baseline types 'initial planning', 'what-if', and 'midproject' to organize a project's baselines. The BaselineType service enables you to create new baseline types or maintain (update, delete) existing ones. The BaselineType Service also allows you to load multiple associated BaselineProject objects from the database.

### CreateBaselineTypes Operation

Description: Creates multiple BaselineType objects in the database. You can create up to 1000 BaselineType objects with a single call.

**Service:** *BaselineType Service (on page 249)*

Style: Document/literal wrapped

Input:

Message: CreateBaselineTypes

Elements: BaselineType elements that contain **BaselineType Fields** (on page 252) fields.

Required fields: You must supply the Name field when you use the CreateBaselineTypes operation. All other fields are optional.

Output:

Message: CreateBaselineTypesResponse

Output: Zero to many ObjectID elements

### ReadBaselineTypes Operation

Description: Reads BaselineType objects from the database.

**Service:** *BaselineType Service (on page 249)*

Style: Document/literal wrapped

Input:

Message: ReadBaselineTypes

Elements: One to many field names from the **BaselineType Fields** (on page 252) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadBaselineTypesResponse

Output: Zero to many BaselineType elements that contain BaselineType fields.

### UpdateBaselineTypes Operation

Description: Updates multiple BaselineType objects in the database. You can update up to 1000 BaselineType objects with a single call.

**Service:** *BaselineType Service (on page 249)*

Style: Document/literal wrapped

Input:

Message: UpdateBaselineTypes

Elements: BaselineType elements that contain **BaselineType Fields** (on page 252) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateBaselineTypesResponse

Output: boolean

### DeleteBaselineTypes Operation

Description: Deletes multiple BaselineType objects in the database. You can delete up to 1000 BaselineType objects with a single call.

**Service:** *BaselineType Service (on page 249)*

Style: Document/literal wrapped

Input:

Message: DeleteBaselineTypes

Elements: One to many ObjectId elements

Output:

Message: DeleteBaselineTypesResponse

Output: boolean

### GetFieldLengthBaselineType Operation

Description: Returns length of variable character fields for a BO.

**Service:** *BaselineType Service (on page 249)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthBaselineType

Elements: FieldLength

Output:

Message: GetFieldLengthFieldLengthBaselineTypeResponse

Elements: One to many FieldLengthBaselineTypes.

### BaselineType Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this baseline type was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this baseline type.
LastUpdate Date	dateTime	X	X	The date this baseline type was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this baseline type.
Name	string restricted to maxLength(40)		X	The name of this baseline type.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.

### DocumentCategory Service

Operations:

**CreateDocumentCategories Operation** (on page 253)

**ReadDocumentCategories Operation** (on page 253)

**UpdateDocumentCategories Operation** (on page 254)

**DeleteDocumentCategories Operation** (on page 254)

**GetFieldLengthDocumentCategory Operation** (on page 255)

### WSDL: DocumentCategory.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/DocumentCategory/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/DocumentCategoryService?wsdl>

<https://<hostname>:<port number>/p6ws/services/DocumentCategoryService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.documentcategory.DocumentCategoryService`

### Description:

Document categories are used to organize and standardize documents across projects.

## CreateDocumentCategories Operation

Description: Creates multiple DocumentCategory objects in the database. You can create up to 1000 DocumentCategory objects with a single call.

**Service:** *DocumentCategory Service* (on page 252)

Style: Document/literal wrapped

Input:

Message: CreateDocumentCategories

Elements: DocumentCategory elements that contain **DocumentCategory Fields** (on page 255) fields.

Required fields: You must supply a Name field when you use the CreateDocumentCategories operation.

Output:

Message: CreateDocumentCategoriesResponse

Output: Zero to many ObjectId elements

## ReadDocumentCategories Operation

Description: Reads DocumentCategory objects from the database.

**Service:** *DocumentCategory Service* (on page 252)

Style: Document/literal wrapped

Input:

Message: ReadDocumentCategories

Elements: One to many field names from the **DocumentCategory Fields** (on page 255) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadDocumentCategoriesResponse

Output: Zero to many DocumentCategory elements that contain **DocumentCategory Fields** (on page 255) fields.

### UpdateDocumentCategories Operation

Description: Updates multiple DocumentCategory objects in the database. You can update up to 1000 DocumentCategory objects with a single call.

**Service:** *DocumentCategory Service (on page 252)*

Style: Document/literal wrapped

Input:

Message: UpdateDocumentCategories

Elements: DocumentCategory elements that contain **DocumentCategory Fields** (on page 255) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateDocumentCategoriesResponse

Output: boolean

### DeleteDocumentCategories Operation

Description: Deletes multiple DocumentCategory objects in the database. You can delete up to 1000 DocumentCategory objects with a single call.

**Service:** *DocumentCategory Service (on page 252)*

Style: Document/literal wrapped

Input:

Message: DeleteDocumentCategories

Elements: One to many ObjectID elements

Output:

Message: DeleteDocumentCategoriesResponse

Output: boolean

### GetFieldLengthDocumentCategory Operation

Description: Returns length of variable character fields for a BO.

**Service:** *DocumentCategory Service (on page 252)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthDocumentCategory

Elements: FieldLength

Output:

Message: GetFieldLengthDocumentCategoryResponse

Elements: One to many FieldLengthDocumentCategories.

### DocumentCategory Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this document category was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this document category.
LastUpdate Date	dateTime	X	X	The date this document category was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this document category.
Name	string restricted to maxLength(100)		X	The name of the document category.
ObjectId	int		X	The unique ID generated by the system.
SequenceN	int		X	The sequence

umber				number for sorting.
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## DocumentStatusCode Service

### proOperations:

**CreateDocumentStatusCodes Operation** (on page 256)

**ReadDocumentStatusCodes Operation** (on page 257)

**UpdateDocumentStatusCodes Operation** (on page 257)

**DeleteDocumentStatusCodes Operation** (on page 258)

**GetFieldLengthDocumentStatusCode Operation** (on page 258)

### WSDL: DocumentStatusCode.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/DocumentStatusCode/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/DocumentStatusCodeService?wsdl>

<https://<hostname>:<port number>/p6ws/services/DocumentStatusCodeService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.documentstatuscode.DocumentStatusCodeService`

### Description:

Document status codes are used to identify and track the current state of work products and documents.

## CreateDocumentStatusCodes Operation

Description: Creates multiple DocumentStatusCode objects in the database. You can create up to 1000 DocumentStatusCode objects with a single call.

**Service:** *DocumentStatusCode Service* (on page 256)

Style: Document/literal wrapped

Input:

Message: CreateDocumentStatusCodes

Elements: DocumentStatusCode elements that contain **DocumentStatusCode Fields** (on page 258) fields.

Required fields: You must supply a Name field when you use the CreateDocumentStatusCodes operation.



**Output:**

Message: CreateDocumentStatusCodesResponse

Output: Zero to many ObjectID elements

### ReadDocumentStatusCodes Operation

Description: Reads DocumentStatusCode objects from the database.

**Service:** *DocumentStatusCode Service (on page 256)*

Style: Document/literal wrapped

**Input:**

Message: ReadDocumentStatusCodes

Elements: One to many field names from the **DocumentStatusCode Fields** (on page 258) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

**Output:**

Message: ReadDocumentStatusCodesResponse

Output: Zero to many DocumentStatusCode elements that contain **DocumentStatusCode Fields** (on page 258) fields.

### UpdateDocumentStatusCodes Operation

Description: Updates multiple DocumentStatusCode objects in the database. You can update up to 1000 DocumentStatusCode objects with a single call.

**Service:** *DocumentStatusCode Service (on page 256)*

Style: Document/literal wrapped

**Input:**

Message: UpdateDocumentStatusCodes

Elements: DocumentStatusCode elements that contain **DocumentStatusCode Fields** (on page 258) fields.

Required fields: The ObjectID must be specified.

**Output:**

Message: UpdateDocumentStatusCodesResponse

Output: boolean

### DeleteDocumentStatusCodes Operation

Description: Deletes multiple DocumentStatusCode objects in the database. You can delete up to 1000 DocumentStatusCode objects with a single call.

**Service:** *DocumentStatusCode Service (on page 256)*

Style: Document/literal wrapped

Input:

Message: DeleteDocumentStatusCodes

Elements: One to many ObjectId elements

Output:

Message: DeleteDocumentStatusCodesResponse

Output: boolean

### GetFieldLengthDocumentStatusCode Operation

Description: Returns length of variable character fields for a BO.

**Service:** *DocumentStatusCode Service (on page 256)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthDocumentStatusCode

Elements: FieldLength

Output:

Message: GetFieldLengthDocumentStatusCodeResponse

Elements: One to many FieldLengthDocumentStatusCodes.

### DocumentStatusCode Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this document status was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this document status.
LastUpdate Date	dateTime	X	X	The date this document status

				was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this document status.
Name	string restricted to maxLength(36)		X	The name of the document status code.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.

## ExpenseCategory Service

### Operations:

**CreateExpenseCategories Operation** (on page 260)

**ReadExpenseCategories Operation** (on page 260)

**UpdateExpenseCategories Operation** (on page 260)

**DeleteExpenseCategories Operation** (on page 261)

**GetFieldLengthExpenseCategory Operation** (on page 261)

### WSDL: ExpenseCategory.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ExpenseCategory/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ExpenseCategoryService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ExpenseCategoryService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.expensecategory.ExpenseCategoryService`

### Description:

Expense categories are used to categorize project expenses. They are used for standardizing expenses and for rolling up expenses across projects.

## CreateExpenseCategories Operation

Description: Creates multiple ExpenseCategory objects in the database. You can create up to 1000 ExpenseCategory objects with a single call.

**Service:** *ExpenseCategory Service (on page 259)*

Style: Document/literal wrapped

Input:

Message: CreateExpenseCategories

Elements: ExpenseCategory elements that contain **ExpenseCategory Fields** (on page 262) fields

Required fields: You must supply the Name field when you use the CreateExpenseCategories operation. All other fields are optional.

Output:

Message: CreateExpenseCategoriesResponse

Output: Zero to many ObjectID elements

## ReadExpenseCategories Operation

Description: Reads ExpenseCategory objects from the database.

**Service:** *ExpenseCategory Service (on page 259)*

Style: Document/literal wrapped

Input:

Message: ReadExpenseCategories

Elements: One to many field names from the **ExpenseCategory Fields** (on page 262) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadExpenseCategoriesResponse

Output: Zero to many ExpenseCategory elements that contain **ExpenseCategory Fields** (on page 262) fields.

## UpdateExpenseCategories Operation

Description: Updates multiple ExpenseCategory objects in the database. You can update up to 1000 ExpenseCategory objects with a single call.

**Service: ExpenseCategory Service (on page 259)**

Style: Document/literal wrapped

Input:

Message: UpdateExpenseCategories

Elements: ExpenseCategory elements that contain **ExpenseCategory Fields** (on page 262) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateExpenseCategoriesResponse

Output: boolean

**DeleteExpenseCategories Operation**

Description: Deletes multiple ExpenseCategory objects in the database. You can delete up to 1000 ExpenseCategory objects with a single call.

**Service: ExpenseCategory Service (on page 259)**

Style: Document/literal wrapped

Input:

Message: DeleteExpenseCategories

Elements: One to many ObjectId elements

Output:

Message: DeleteExpenseCategoriesResponse

Output: boolean

**GetFieldLengthExpenseCategory Operation**

Description: Returns length of variable character fields for a BO.

**Service: ExpenseCategory Service (on page 259)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthExpenseCategory

Elements: FieldLength

Output:

Message: GetFieldLengthExpenseCategoryResponse

Elements: One to many FieldLengthExpenseCategories.

## ExpenseCategory Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this expense category was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this expense category.
LastUpdate Date	dateTime	X	X	The date this expense category was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this expense category.
Name	string restricted to maxLength(36)		X	The name of the expense category.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.

## NotebookTopic Service

### Operations:

**CreateNotebookTopics Operation** (on page 263)

**ReadNotebookTopics Operation** (on page 263)

**UpdateNotebookTopics Operation** (on page 264)

**DeleteNotebookTopics Operation** (on page 264)

**GetFieldLengthNotebookTopic Operation** (on page 265)

**WSDL: NotebookTopic.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/NotebookTopic/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/NotebookTopicService?wsdl>

<https://<hostname>:<port number>/p6ws/services/NotebookTopicService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.notebooktopic.NotebookTopicService`

**Description:**

Notebook topics are used to categorize notes on EPS, project, WBS, and activity objects. Notebook topics are defined globally, and are usually specified by an administrator.

**CreateNotebookTopics Operation**

Description: Creates multiple NotebookTopic objects in the database. You can create up to 1000 NotebookTopic objects with a single call.

**Service:** *NotebookTopic Service* (on page 262)

Style: Document/literal wrapped

Input:

Message: CreateNotebookTopics

Elements: NotebookTopic elements that contain **NotebookTopic Fields** (on page 265) fields.

Required fields: You must supply the Name field when you use the CreateNotebookTopics operation. All other fields are optional.

Output:

Message: CreateNotebookTopicsResponse

Output: Zero to many ObjectId elements

**ReadNotebookTopics Operation**

Description: Reads NotebookTopic objects from the database.

**Service:** *NotebookTopic Service* (on page 262)

Style: Document/literal wrapped

Input:

Message: ReadNotebookTopics

Elements: One to many field names from the **NotebookTopic Fields** (on page 265) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadNotebookTopicsResponse

Output: Zero to many NotebookTopic elements that contain **NotebookTopic Fields** (on page 265) fields.

### UpdateNotebookTopics Operation

Description: Updates multiple NotebookTopic objects in the database. You can update up to 1000 NotebookTopic objects with a single call.

**Service:** *NotebookTopic Service* (on page 262)

Style: Document/literal wrapped

Input:

Message: UpdateNotebookTopics

Elements: NotebookTopic elements that contain **NotebookTopic Fields** (on page 265) fields.

Output:

Message: UpdateNotebookTopicsResponse

Output: boolean

### DeleteNotebookTopics Operation

Description: Deletes multiple NotebookTopic objects in the database. You can delete up to 1000 NotebookTopic objects with a single call.

**Service:** *NotebookTopic Service* (on page 262)

Style: Document/literal wrapped

Input:

Message: DeleteNotebookTopics

Elements: One to many ObjectId elements

Output:

Message: DeleteNotebookTopicsResponse

Output: boolean



## GetFieldLengthNotebookTopic Operation

Description: Returns length of variable character fields for a BO.

**Service:** *NotebookTopic Service (on page 262)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthNotebookTopic

Elements: FieldLength

Output:

Message: GetFieldLengthNotebookTopicResponse

Elements: One to many FieldLengthNotebookTopics.

## NotebookTopic Fields

Field	Type	Read Only	Filterable Orderable	Description
AvailableForActivity	boolean		X	The flag indicating that the topic will be available to assign to activities.
AvailableForEPS	boolean		X	The flag indicating that the topic will be available to assign to EPS.
AvailableForProject	boolean		X	The flag indicating that the topic will be available to assign to projects.
AvailableForWBS	boolean		X	The flag indicating that the topic will be available to assign to WBS.
CreateDate	dateTime	X	X	The date this notebook topic was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this notebook topic.
LastUpdate	dateTime	X	X	The date this

Date				notebook topic was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this notebook topic.
Name	string restricted to maxLength(40)		X	The name of the notebook topic.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.

## ProjectResourceCategory Service

### Operations:

**CreateProjectResourceCategories Operation** (on page 267)

**ReadProjectResourceCategories Operation** (on page 267)

**UpdateProjectResourceCategories Operation** (on page 267)

**DeleteProjectResourceCategories Operation** (on page 268)

**GetFieldLengthProjectResourceCategory Operation** (on page 268)

### WSDL: ProjectResourceCategory.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectResourceCategory/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ProjectResourceCategoryService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ProjectResourceCategoryService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.projectresourcecategory.ProjectResourceCategoryService`

### Description:

Project resource categories are used to categorize resource planning assignments.

## CreateProjectResourceCategories Operation

Description: Creates multiple ProjectResourceCategory objects in the database. You can create up to 1000 ProjectResourceCategory objects with a single call.

**Service:** *ProjectResourceCategory Service (on page 266)*

Style: Document/literal wrapped

Input:

Message: CreateProjectResourceCategories

Elements: ProjectResourceCategory elements that contain **ProjectResourceCategory Fields** (on page 269) fields

Required fields: You must supply the Name field when you use the CreateProjectResourceCategories operation. All other fields are optional.

Output:

Message: CreateProjectResourceCategoriesResponse

Output: Zero to many ObjectId elements

## ReadProjectResourceCategories Operation

Description: Reads ProjectResourceCategory objects from the database.

**Service:** *ProjectResourceCategory Service (on page 266)*

Style: Document/literal wrapped

Input:

Message: ReadProjectResourceCategories

Elements: One to many field names from the **ProjectResourceCategory Fields** (on page 269) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectResourceCategoriesResponse

Output: Zero to many ProjectResourceCategory elements that contain **ProjectResourceCategory Fields** (on page 269) fields.

## UpdateProjectResourceCategories Operation

Description: Updates multiple ProjectResourceCategory objects in the database. You can update up to 1000 ProjectResourceCategory objects with a single call.

**Service:** *ProjectResourceCategory Service (on page 266)*

Style: Document/literal wrapped

Input:

Message: UpdateProjectResourceCategories

Elements: ProjectResourceCategory elements that contain ***ProjectResourceCategory Fields*** (on page 269) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateProjectResourceCategoriesResponse

Output: boolean

### DeleteProjectResourceCategories Operation

Description: Deletes multiple ProjectResourceCategory objects in the database. You can delete up to 1000 ProjectResourceCategory objects with a single call.

**Service:** *ProjectResourceCategory Service (on page 266)*

Style: Document/literal wrapped

Input:

Message: DeleteProjectResourceCategories

Elements: One to many ObjectID elements

Output:

Message: DeleteProjectResourceCategoriesResponse

Output: boolean

### GetFieldLengthProjectResourceCategory Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ProjectResourceCategory Service (on page 266)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectResourceCategory


Elements: FieldLength

Output:

Message: GetFieldLengthProjectResourceCategoryResponse

Elements: One to many FieldLengthProjectResourceCategories.

## ProjectResourceCategory Fields

 Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this project resource category was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this project resource category.
LastUpdate Date	dateTime	X	X	The date this document status was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this project resource category.
Name	string restricted to maxLength(36)		X	The name of the project resource category.
ObjectId	int		X	The unique ID generated by the system.

## RiskCategory Service

## Operations:

**CreateRiskCategories Operation** (on page 270)

**ReadRiskCategories Operation** (on page 270)

**UpdateRiskCategories Operation** (on page 271)

**DeleteRiskCategories Operation** (on page 271)

**GetFieldLengthRiskCategory Operation** (on page 271)

## WSDL: RiskCategory.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RiskCategory/V2>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RiskCategoryService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/RiskCategoryService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.riskcategory.RiskCategoryService`

**Description:**

The risk category object is used to categorize and organize project risks. A risk can only be associated with a single category. Categories help ensure a comprehensive and systematic way of identifying risks to a consistent level of detail and completeness. Technical, Operational, External are examples of risk categories that might apply to a typical project. Categories are global objects and are usually defined by an administrator.

### CreateRiskCategories Operation

Description: Creates multiple RiskCategory objects in the database. You can create up to 1000 RiskCategory objects with a single call.

**Service:** *RiskCategory Service* (on page 269)

Style: Document/literal wrapped

Input:

Message: CreateRiskCategories

Elements: RiskCategory elements that contain ***RiskCategory Fields*** (on page 272) fields.

Required fields: You must supply the Name field.

Output:

Message: CreateRiskCategoriesResponse

Output: Zero to many ObjectID elements

### ReadRiskCategories Operation

Description: Reads RiskCategory objects from the database.

**Service:** *RiskCategory Service* (on page 269)

Style: Document/literal wrapped

Input:

Message: ReadRiskCategories

Elements: One to many field names from the ***RiskCategory Fields*** (on page 272) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRiskCategoriesResponse

Output: Zero to many RiskCategory elements that contain **RiskCategory Fields** (on page 272) fields.

### UpdateRiskCategories Operation

Description: Updates multiple RiskCategory objects in the database. You can update up to 1000 RiskCategory objects with a single call.

**Service:** *RiskCategory Service* (on page 269)

Style: Document/literal wrapped

Input:

Message: UpdateRiskCategories

Elements: RiskCategory elements that contain **RiskCategory Fields** (on page 272) fields

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRiskCategoriesResponse

Output: boolean

### DeleteRiskCategories Operation

Description: Deletes multiple RiskCategory objects in the database. You can delete up to 1000 RiskCategory objects with a single call.

**Service:** *RiskCategory Service* (on page 269)

Style: Document/literal wrapped

Input:

Message: DeleteRiskCategories

Elements: One to many ObjectId elements

Output:

Message: DeleteRiskCategoriesResponse

Output: boolean

### GetFieldLengthRiskCategory Operation

Description: Returns length of variable character fields for a BO.

**Service: RiskCategory Service (on page 269)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRiskCategory

Elements: FieldLength

Output:

Message: GetFieldLengthRiskCategoryResponse

Elements: One to many FieldLengthRiskCategories.

**RiskCategory Fields**

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this risk category was created.
CreateUser	string	X	X	The name of the user that created this risk category.
LastUpdate Date	dateTime	X	X	The date this risk category was last updated.
LastUpdate User	string	X	X	The name of the user that last updated this risk category.
Name	string restricted to maxLength(40)		X	The name of the risk category.
ObjectId	int		X	The unique ID generated by the system.
ParentObjectID	int		X	The unique ID of the parent risk type of this risk type in the hierarchy.
SequenceNumber	int		X	The sequence number for sorting.



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## ThresholdParameter Service

### Operations:

***ReadThresholdParameters Operation*** (on page 273)

***GetFieldLengthThresholdParameter Operation*** (on page 274)

### WSDL: ThresholdParameter.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ThresholdParameter/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ThresholdParameterService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ThresholdParameterService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.thresholdparameter.ThresholdParameterService`

### Description:

A threshold parameter is a measurement that is applied to activities or work breakdown structure (WBS) elements in a project to identify potential issues. To identify issues that you want to track, you can monitor a specific threshold parameter in the Project Management application and specify a lower and/or upper threshold value against which project data is evaluated. When a threshold parameter is equal to or less than the lower threshold value, or equal to or greater than the upper threshold value, an issue is automatically generated.

You use this service to read the parameters relating to a specific threshold.

## ReadThresholdParameters Operation

Description: Reads ThresholdParameter objects from the database.

**Service:** *ThresholdParameter Service* (on page 273)

Style: Document/literal wrapped

Input:

Message: ReadThresholdParameters

Elements: One to many field names from the ***ThresholdParameter Fields*** (on page 274) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the *P6 EPPM Web Services Programming Guide* Filters topic in the for additional details.

Output:

Message: ReadThresholdParametersResponse

Output: Zero to many ThresholdParameter elements that contain **ThresholdParameter Fields** (on page 274) fields.

### GetFieldLengthThresholdParameter Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ThresholdParameter Service (on page 273)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthThresholdParameter

Elements: FieldLength

Output:

Message: GetFieldLengthThresholdParameterResponse

Elements: One to many FieldLengthThresholdParameters.

### ThresholdParameter Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this threshold parameter was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this threshold parameter.
LastUpdate Date	dateTime	X	X	The date this threshold parameter was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this

	55)			threshold parameter.
Name	string restricted to maxLength(80)	X	X	The name of the threshold parameter.
ObjectId	int	X	X	The unique ID generated by the system.
Type	string restricted to " 'AV - Accounting Variance (Cost)' 'CV - Cost Variance (Cost)' 'SV - Schedule Variance (Cost)' 'VAC - Variance at Completion (Cost)' 'Cost Percent of Planned (Percent)' 'CPI - Cost Performance Index (Ratio)' 'CVI - Cost Variance Index (Ratio)' 'SPI - Schedule Performance Index (Ratio)' 'SVI - Schedule Variance Index (Ratio)' 'Duration Percent of	X	X	The field name for the threshold parameter. For example, "CPI - Cost Performance Index (Ratio)", "SPI - Schedule Performance Index (Ratio)", etc.

	Planned (Percent)' 'Start Date Variance (In Days)' 'Finish Date Variance (In Days)' 'Total Float (In Days)' 'Free Float (In Days)'			
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## UnitOfMeasure Service

### Operations:

- CreateUnitOfMeasures Operation** (on page 277)
- ReadUnitOfMeasures Operation** (on page 277)
- UpdateUnitOfMeasures Operation** (on page 277)
- DeleteUnitOfMeasures Operation** (on page 278)
- GetFieldLengthUnitOfMeasure Operation** (on page 278)

### WSDL: UnitOfMeasure.wsdl

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/UnitOfMeasure/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/UnitOfMeasureService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/UnitOfMeasureService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.unitofmeasure.UnitOfMeasureService`

### Description:

The unit of measure provides definitions of units of measure for material resources. There are three types of resources. The unit of measure for labor and nonlabor resources is time. The unit of measure for material resources is defined by the UnitOfMeasure object.

## CreateUnitOfMeasures Operation

Description: Creates multiple UnitOfMeasure objects in the database. You can create up to 1000 UnitOfMeasure objects with a single call.

**Service:** *UnitOfMeasure Service (on page 276)*

Style: Document/literal wrapped

Input:

Message: CreateUnitOfMeasures

Elements: UnitOfMeasure elements that contain **UnitOfMeasure Fields** (on page 279) fields

Required fields:

- ▶ Abbreviation
- ▶ Name

Output:

Message: CreateUnitOfMeasuresResponse

Output: Zero to many ObjectId elements

## ReadUnitOfMeasures Operation

Description: Reads UnitOfMeasure objects from the database.

**Service:** *UnitOfMeasure Service (on page 276)*

Style: Document/literal wrapped

Input:

Message: ReadUnitOfMeasures

Elements: One to many field names from the **UnitOfMeasure Fields** (on page 279) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadUnitOfMeasuresResponse

Output: Zero to many UnitOfMeasure elements that contain **UnitOfMeasure Fields** (on page 279) fields.

## UpdateUnitOfMeasures Operation

Description: Updates multiple UnitOfMeasure objects in the database. You can update up to 1000 UnitOfMeasure objects with a single call.

**Service:** *UnitOfMeasure Service (on page 276)*

Style: Document/literal wrapped

Input:

Message: UpdateUnitOfMeasures

Elements: UnitOfMeasure elements that contain ***UnitOfMeasure Fields*** (on page 279) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateUnitOfMeasuresResponse

Output: boolean

### DeleteUnitOfMeasures Operation

Description: Deletes multiple UnitOfMeasure objects in the database. You can delete up to 1000 UnitOfMeasure objects with a single call.

**Service:** *UnitOfMeasure Service (on page 276)*

Style: Document/literal wrapped

Input:

Message: DeleteUnitOfMeasures

Elements: One to many ObjectId elements

Output:

Message: DeleteUnitOfMeasuresResponse

Output: boolean

### GetFieldLengthUnitOfMeasure Operation

Description: Returns length of variable character fields for a BO.

**Service:** *UnitOfMeasure Service (on page 276)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthUnitOfMeasure

Elements: FieldLength

Output:

Message: GetFieldLengthUnitOfMeasureResponse

Elements: One to many FieldLengthUnitOfMeasures.

## UnitOfMeasure Fields

Field	Type	Read Only	Filterable Orderable	Description
Abbreviation	string restricted to maxLength(16)		X	The abbreviation of the unit of measure.
CreateDate	dateTime	X	X	The date this unit of measure was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this unit of measure.
LastUpdateDate	dateTime	X	X	The date this unit of measure was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this unit of measure.
Name	string restricted to maxLength(100)		X	The name of the unit of measure.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.

## UserFieldTitle Service

### Operations:

***ReadUserFieldTitles Operation*** (on page 280)

***UpdateUserFieldTitles Operation*** (on page 281)

***GetFieldLengthUserFieldTitle Operation*** (on page 281)

**WSDL: UserFieldTitle.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/UserFieldTitle/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/UserFieldTitleService?wsdl>

<https://<hostname>:<port number>/p6ws/services/UserFieldTitleService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.userfieldtitle.UserFieldTitleService`

**Description:**

User fields enable you to add your own custom fields and values to the project database. For example, you can track additional activity data, such as delivery dates and purchase order numbers, or resource and cost-related data, such as profit, variances, and revised budgets.

In the Project Management application you can display custom user fields in the columns of the Activity Table and then print the layout. You can also group, sort, filter, and summarize by user field, as well as add user fields to reports you create. Use Global Change to assign values to Activity and Activity Resource Assignments type user fields.

You may not create or delete user field titles; they may only be loaded and updated.

## ReadUserFieldTitles Operation

Description: Reads UserFieldTitle objects from the database.

**Service:** *UserFieldTitle Service* (on page 279)

Style: Document/literal wrapped

Input:

Message: ReadUserFieldTitles

Elements: One to many field names from the ***UserFieldTitle Fields*** (on page 281) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadUserFieldTitlesResponse

Output: Zero to many UserFieldTitle elements that contain ***UserFieldTitle Fields*** (on page 281) fields.



### UpdateUserFieldTitles Operation

Description: Updates multiple UserFieldTitle objects in the database. You can update up to 1000 UserFieldTitle objects with a single call.

**Service:** *UserFieldTitle Service (on page 279)*

Style: Document/literal wrapped

Input:

Message: UpdateUserFieldTitles

Elements: UserFieldTitle elements that contain **UserFieldTitle Fields** (on page 281) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateUserFieldTitlesResponse

Output: boolean

### GetFieldLengthUserFieldTitle Operation

Description: Returns length of variable character fields for a BO.

**Service:** *UserFieldTitle Service (on page 279)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthUserFieldTitle

Elements: FieldLength

Output:

Message: GetFieldLengthUserFieldTitleResponse

Elements: One to many FieldLengthUserFieldTitles.

### UserFieldTitle Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this user field title was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this user field title.
DefaultTitle	string	X	X	The default title of

	restricted to maxLength(32)			the column name.
LastUpdate Date	dateTime	X	X	The date this user field title was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this user field title.
ObjectId	int	X	X	The unique ID generated by the system.
ObjectName	string	X		The name of the business object to which this user defined column belongs.
UserDefined Title	string restricted to maxLength(40)		X	The user defined column name.
UserTableName	string restricted to maxLength(16)	X	X	The table name of the user defined column.

## WBSCategory Service

### Operations:

**CreateWBSCategories Operation** (on page 283)

**ReadWBSCategories Operation** (on page 283)

**UpdateWBSCategories Operation** (on page 284)

**DeleteWBSCategories Operation** (on page 284)

**GetFieldLengthWBSCategory Operation** (on page 284)

### WSDL: WBSCategory.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/WBSCategory/V1>

**Default Transport URLs:**

http://<hostname>:<port number>/p6ws/services/WBSCategoryService?wsdl  
https://<hostname>:<port number>/p6ws/services/WBSCategoryService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.wbscategory.WBSCategoryService

**Description:**

As their name implies, WBS categories are used to categorize WBS elements. They are defined globally.

**CreateWBSCategories Operation**

Description: Creates multiple WBSCategory objects in the database. You can create up to 1000 WBSCategory objects with a single call.

**Service:** *WBSCategory Service (on page 282)*

Style: Document/literal wrapped

**Input:**

Message: CreateWBSCategories

Elements: WBSCategory elements that contain **WBSCategory Fields** (on page 285) fields

Required fields: You must supply the Name field.

**Output:**

Message: CreateWBSCategoriesResponse

Output: Zero to many ObjectId elements

**ReadWBSCategories Operation**

Description: Reads WBSCategory objects from the database.

**Service:** *WBSCategory Service (on page 282)*

Style: Document/literal wrapped

**Input:**

Message: ReadWBSCategories

Elements: One to many field names from the **WBSCategory Fields** (on page 285) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

**Output:**

Message: ReadWBSCategoriesResponse

Output: Zero to many WBSCategory elements that contain **WBSCategory Fields** (on page 285) fields.

### UpdateWBSCategories Operation

Description: Updates multiple WBSCategory objects in the database. You can update up to 1000 WBSCategory objects with a single call.

**Service:** *WBSCategory Service* (on page 282)

Style: Document/literal wrapped

Input:

Message: UpdateWBSCategories

Elements: WBSCategory elements that contain **WBSCategory Fields** (on page 285) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateWBSCategoriesResponse

Output: boolean

### DeleteWBSCategories Operation

Description: Deletes multiple WBSCategory objects in the database. You can delete up to 1000 WBSCategory objects with a single call.

**Service:** *WBSCategory Service* (on page 282)

Style: Document/literal wrapped

Input:

Message: DeleteWBSCategories

Elements: One to many ObjectID elements

Output:

Message: DeleteWBSCategoriesResponse

Output: boolean

### GetFieldLengthWBSCategory Operation

Description: Returns length of variable character fields for a BO.

**Service:** *WBSCategory Service* (on page 282)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthWBSCategory

Elements: FieldLength

Output:

Message: GetFieldLengthWBSCategoryResponse

Elements: One to many FieldLengthWBSCategories.

### WBSCategory Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this phase was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this phase.
LastUpdate Date	dateTime	X	X	The date this phase was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this phase.
Name	string restricted to maxLength(100)		X	The name of the WBS category. Note that the label used for WBS category is dynamic; the system administrator controls it.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.

## Authentication Service (On-Premises Only)

### Operations:

- Login Operation** (on page 286)
- Logout Operation** (on page 287)
- ReadDatabaseInstances Operation** (on page 287)
- ReadSessionProperties Operation** (on page 288)
- UpdateSessionProperties Operation** (on page 289)

### WSDL: Authentication.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Authentication/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/AuthenticationService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/AuthenticationService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.authentication.AuthenticationService`

### Description:

The Authentication service enables you to login and logout of the application and establish your credentials with the server using HTTP cookies.

## Login Operation

Description: This operation uses the elements in the table below.

**Service:** *Authentication Service (On-Premises Only)* (on page 286)

Style: Document/literal wrapped

Input:

Message: LoginRequest

Elements: Authentication elements that contain Authentication fields:

Field	Type	Description
UserName	string	The UserName of the user logging into the application.
Password	string	The Password of the user logging into the application.
DatabaseInstanceld	int	The unique identifier of the database instance.

Required Fields: You must supply a username when you use the Login operation.

Output:

Message: LoginResponse

Elements: boolean

## Logout Operation

Description: Logout action.

**Service:** *Authentication Service (On-Premises Only)* (on page 286)

Style: Document/literal wrapped

Input:

Message: LogoutRequest

Elements: None

Required fields: None

Output:

Message: LogoutResponse

Elements: boolean

## ReadDatabaseInstances Operation

Description: The ReadDatabaseInstances operation enables you to read multiple DatabaseInstance objects from the database. You can call the ReadDatabaseInstances operation without first logging in. DatabaseInstance objects contain information about a database instances, specifically the ID and name. The ID can be used at login time to specify which database instance to connect to. The name is more descriptive and can be presented to a graphical user interface (GUI). The P6 EPPM Web Services setup application ensures that a configuration exists in your primary database. This configuration is created with one database instance by default. To add other instances, use the Administrator application. See the *P6 EPPM Web Services Programming Guide* for more information.

**Service:** *Authentication Service (On-Premises Only)* (on page 286)

Style: Document/literal wrapped

Input:

Message: ReadDatabaseInstances

Elements: None

Output:

Message: ReadDatabaseInstancesResponse

Output: One to many DatabaseInstances containing the following fields:

Fields	Type	Description
DatabaseInstanceid	int	The unique identifier of the database instance.
DatabaseEncoding	string	The method used to encode data in the database.
DatabaseName	string	The database name associated with the connection.
DatabaseType	string	The database type associated with the connection. Currently restricted to the following values: <ul style="list-style-type: none"> <li>▶ Oracle</li> <li>▶ SQL Server</li> </ul>
DatabaseUrl	string	The Universal Resource Locator (URL) associated with the connection

## ReadSessionProperties Operation

Description: The ReadSessionProperties operation enables you to read the session properties.

**Service:** *Authentication Service (On-Premises Only)* (on page 286)

Style: Document/literal wrapped

Input:

Message: ReadSessionProperties

Elements: None

Output:

Message: ReadSessionPropertiesResponse

Output: Elements from the following list:

Element	Type	Description
IsValid	boolean	Indicates whether the session is valid
UserObjectid	int	The unique identifier of the user associated with the session.



UserName	String	The user's login name.
DatabaseInstanceId	int	The unique identifier of the database instance that this session is logged into.
DatabaseEncoding	string	The method used to encode data in the database.
DatabaseName	string	The database name that this session is logged into.
DatabaseType	DatabaseType string	The database type associated with the connection. Currently restricted to the following values: <ul style="list-style-type: none"> <li>▶ Oracle</li> <li>▶ SQL Server</li> </ul>
DatabaseUrl	string	The Universal Resource Locator (URL) associated with the connection.
IgnoreNullComplexFields	boolean	Ignores any complex fields that have null field values. Complex fields are fields that have a structure that includes child elements. An example of a complex field is the StandardWorkWeek field that is used in the Calendar service.  The default value of IgnoreNullComplexFields is true.

## UpdateSessionProperties Operation

Description: Updates multiple Authentication objects in the database. You can update up to 1000 Authentication objects with a single call.

**Service:** *Authentication Service (On-Premises Only)* (on page 286)

Style: Document/literal wrapped

Input:

Message: UpdateSessionPropertiesRequest

Elements: UpdateSessionProperties elements from the following table.

Parameter	Type	Description
-----------	------	-------------

IgnoreNullComplexFields	boolean	<p> Ignores any complex fields that have null field values. Complex fields are fields that have a structure that includes child elements. An example of a complex field is the StandardWorkWeek field that is used in the Calendar service.</p> <p> The default value of IgnoreNullComplexFields is true.</p>
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Output:

Message: UpdateSessionPropertiesResponse

Output: boolean

## Code Services

### ActivityCode Service

#### Operations:

**CreateActivityCodes Operation** (on page 291)

**ReadActivityCodes Operation** (on page 292)

**UpdateActivityCodes Operation** (on page 292)

**DeleteActivityCodes Operation** (on page 291)

**ReadActivityCodePath Operation** (on page 292)

**LoadActivities Operation** (on page 293)

**GetFieldLengthActivityCode Operation** (on page 293)

#### WSDL: ActivityCode.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityCode/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ActivityCodeService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ActivityCodeService?wsdl>

#### Java Client Stub Class:

`com.primavera.ws.p6.activitycode.ActivityCodeService`

#### Description:

Activity codes are user-defined codes to classify and categorize activities according to the organization's and project's needs. They can be defined by project as well as globally across all projects. Activity codes are hierarchical objects.

For example, if your organization has more than one location, you can create a Location code type with values such as New York, Los Angeles, and Chicago. You can then associate activities with a specific location, such as New York.

You can define three types of activity codes, global activity codes, EPS activity codes, and project activity codes. You can assign global activity codes and values to activities in all projects. You can assign EPS activity codes and values to activities only in projects in the EPS for which the codes were created. You can assign project activity codes and values to activities only in the project for which the codes were created. Each activity code can have an unlimited number of values.

### CreateActivityCodes Operation

Description: Creates multiple ActivityCode objects in the database. You can create up to 1000 ActivityCode objects with a single call.

**Service:** *ActivityCode Service (on page 290)*

Style: Document/literal wrapped

Input:

Message: CreateActivityCodes

Elements: ActivityCode elements that contain **ActivityCode Fields** (on page 294) fields

Required fields:

- ▶ CodeTypeObjectId
- ▶ CodeValue

Output:

Message: CreateActivityCodesResponse

Output: Zero to many ObjectId elements

### DeleteActivityCodes Operation

Description: Deletes multiple ActivityCode objects in the database. You can delete up to 1000 ActivityCode objects with a single call.

**Service:** *ActivityCode Service (on page 290)*

Style: Document/literal wrapped

Input:

Message: DeleteActivityCodes

Elements: One to many ObjectId elements

Output:

Message: DeleteActivityCodesResponse

Output: boolean

## UpdateActivityCodes Operation

Description: Updates multiple ActivityCode objects in the database. You can update up to 1000 ActivityCode objects with a single call.

**Service:** *ActivityCode Service (on page 290)*

Style: Document/literal wrapped

Input:

Message: UpdateActivityCodes

Elements: ActivityCode elements that contain **ActivityCode Fields** (on page 294) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateActivityCodesResponse

Output: boolean

## ReadActivityCodePath Operation

Description: Reads ActivityCode objects from the database.

**Service:** *ActivityCode Service (on page 290)*

Style: Document/literal wrapped

Input:

Message: ReadActivityCodePath

Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the **ActivityCode Fields** (on page 294) field list

Output:

Message: ReadActivityCodePathResponse

Output: Zero to many ActivityCode elements that contain **ActivityCode Fields** (on page 294) fields.

## ReadActivityCodes Operation

Description: Reads ActivityCode objects from the database.

**Service:** *ActivityCode Service (on page 290)*

Style: Document/literal wrapped

Input:

Message: ReadActivityCodes

Elements: One to many field names from the **ActivityCode Fields** (on page 294) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityCodesResponse

Output: Zero to many ActivityCode elements that contain **ActivityCode Fields** (on page 294) fields.

### GetFieldLengthActivityCode Operation

Description: Returns length of variable character fields for a BO.

**Service:** ActivityCode Service (on page 290)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityCode

Elements: FieldLength

Output:

Message: GetFieldLengthActivityCodeResponse

Elements: One to many FieldLengthActivityCodes.

### LoadActivities Operation

Description: Load the Activity objects to which this activity code is assigned.

**Service:** ActivityCode Service (on page 290)

Style: Document/literal wrapped

Input:

Message: LoadActivities

Elements:

Name	Type	Description	Required
ObjectId	int	The unique identifier for the activity code.	Yes

Fields	string	ActivityCode elements that contain <b>ActivityCode Fields</b> (on page 294) fields.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause to specify the order in which results are returned.	No

Output:

Message: LoadActivitiesResponse

Elements: Zero to many ActivityObjectId elements.

Name	Type	Description
ActivityObjectIds	int	Unique identifiers for the activities returned on operation success.

### ActivityCode Fields

Field	Type	Read Only	Filterable Orderable	Description
CodeConcat Name	string	X		The activity code name with its associated hierarchy. Required for IPMDAR.
CodeTypeN ame	string restricted to maxLength(40)	X	X	The name of the parent code type for this code.
CodeTypeO bjectId	int		X	The unique ID of the parent activity code type.

CodeTypeScope	string restricted to 'Global' 'EPS' 'Project'	X	X	the scope of the parent activity code type: Global, EPS, or Project. An activity code with Global scope can be assigned to any activity. An activity code with EPS scope can be assigned only to an activity within a project under that particular EPS. Similarly, an activity code with Project scope can be assigned only to an activity within that particular project.
CodeValue	string restricted to maxLength(60)		X	The value of the activity code.
Color	string restricted to pattern '#[A-Fa-f0-9]{6}'		X	The Hex representation for the color e.g. 0xFFFFFFFF.
CreateDate	dateTime	X	X	The date this activity code was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this activity code.
Description	string restricted to maxLength(120)		X	The description of the activity code.
LastUpdate	dateTime	X	X	The date this

Date				activity code was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this activity code.
ObjectId	int		X	The unique ID generated by the system.
ParentObjectId	int		X	The unique ID of the parent activity code of this activity code in the hierarchy.
ProjectObjectId	int	X	X	The unique project ID of the parent code type for this code if code type scope is 'Project' or 'EPS', null for code types with scope 'Global'.
SequenceNumber	int		X	The sequence number for sorting.

## ActivityCodeType Service

### Operations:

**CreateActivityCodeTypes Operation** (on page 297)

**ReadActivityCodeTypes Operation** (on page 297)

**UpdateActivityCodeTypes Operation** (on page 298)

**DeleteActivityCodeTypes Operation** (on page 298)

**GetFieldLengthActivityCodeType Operation** (on page 299)

### WSDL: ActivityCodeType.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityCodeType/V1>

Default Transport URLs:



http://<hostname>:<port number>/p6ws/services/ActivityCodeTypeService?wsdl  
https://<hostname>:<port number>/p6ws/services/ActivityCodeTypeService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.activitycodetype.ActivityCodeTypeService

**Description:**

Activity code types provide a way of classifying activity codes. Activity codes are user-defined codes to classify and categorize activities according to the organization's and project's needs. For example, if your organization has more than one location, you can create a Location code type with values such as New York, Los Angeles, and Chicago. You can then associate activities with a specific location, such as New York. You can define activity codes at three different scopes: global activity codes, EPS activity codes, and project activity codes. You can assign global activity codes and values to activities in all projects. You can assign EPS and project activity codes and values to activities only in the EPS and project for which the codes were created. Each ActivityCode can have an unlimited number of values. You can change the scope of an ActivityCodeType from project to EPS, project to Global, and EPS to global. However, you cannot change the scope from EPS to project or from global to anything else. Within the EPS scope, you can always move an ActivityCodeType to a higher level in the EPS structure. However, moving it to a lower level or outside of the EPS hierarchy is possible only if the ActivityCodeType's values are not assigned to any activities. If the ActivityCodeType value assignment exists, an exception will be thrown.

**CreateActivityCodeTypes Operation**

Description: Creates multiple ActivityCodeType objects in the database. You can create up to 1000 ActivityCodeType objects with a single call.

**Service:** *ActivityCodeType Service* (on page 296)

Style: Document/literal wrapped

Input:

Message: CreateActivityCodeTypes

Elements: ActivityCodeType elements that contain **ActivityCodeType Fields** (on page 299) fields

Required fields: You must supply the Name field.

Output:

Message: CreateActivityCodeTypesResponse

Output: Zero to many ObjectId elements

**ReadActivityCodeTypes Operation**

Description: Reads ActivityCodeType objects from the database.

**Service:** *ActivityCodeType Service (on page 296)*

Style: Document/literal wrapped

Input:

Message: ReadActivityCodeTypes

Elements: One to many field names from the **ActivityCodeType Fields** (on page 299) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityCodeTypesResponse

Output: Zero to many ActivityCodeType elements that contain ActivityCodeType fields.

### UpdateActivityCodeTypes Operation

Description: Updates multiple ActivityCodeType objects in the database. You can update up to 1000 ActivityCodeType objects with a single call.

**Service:** *ActivityCodeType Service (on page 296)*

Style: Document/literal wrapped

Input:

Message: UpdateActivityCodeTypes

Elements: ActivityCodeType elements that contain **ActivityCodeType Fields** (on page 299) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateActivityCodeTypesResponse

Output: boolean

### DeleteActivityCodeTypes Operation

Description: Deletes multiple ActivityCodeType objects in the database. You can delete up to 1000 ActivityCodeType objects with a single call.

**Service:** *ActivityCodeType Service (on page 296)*

Style: Document/literal wrapped

Input:

Message: DeleteActivityCodeTypes

Elements: One to many ObjectID elements

Output:

Message: DeleteActivityCodeTypesResponse

Output: boolean

### GetFieldLengthActivityCodeType Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityCodeType Service (on page 296)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityCodeType

Elements: FieldLength

Output:

Message: GetFieldLengthActivityCodeTypeResponse

Elements: One to many FieldLengthActivityCodeTypes.

### ActivityCodeType Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this Activity Code Type was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this ActivityCodeType.
EPSCodeTypeHierarchy	string	X		The field that maintains the EPS Activity Code Type Hierarchy.
EPSObjectID	int		Orderable only	The unique ID of the associated EPS.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline

IsSecureCode	boolean		X	the flag indicating whether this is a secure Activity Code Type.
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this Activity Code Type was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this ActivityCodeType.
Length	int restricted to minInclusive(1) maxInclusive(60)		X	The maximum number of characters allowed for values of this activity code.
Name	string restricted to maxLength(40)		X	The name of the activity code type.
ObjectId	int		X	The unique ID generated by the system.
ProjectObjectId	int		X	The unique ID of the associated project.
RefProjectObjectIds	string			The unique ID associated with a project whose activities have this code assigned. This data is only exported if more than one project is included in the export and if more

				than one project contains activities to which the EPS scoped activity code is assigned.
Scope	string restricted to 'Global' 'EPS' 'Project'		X	The scope of the code type: Global, EPS, or Project. An activity code with Global scope can be assigned to any activity. An activity code with EPS scope can be assigned only to an activity within a project under that particular EPS. Similarly, an activity code with Project scope can be assigned only to an activity within that particular project.
Sequence Number	int		X	The sequence number for sorting.

## ProjectCode Service

### Operations:

**CreateProjectCodes Operation** (on page 302)

**ReadProjectCodes Operation** (on page 303)

**UpdateProjectCodes Operation** (on page 303)

**DeleteProjectCodes Operation** (on page 303)

**ReadProjectCodePath Operation** (on page 304)

**LoadProjects Operation** (on page 304)

**GetFieldLengthProjectCode Operation** (on page 304)

### WSDL: ProjectCode.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectCode/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ProjectCodeService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/ProjectCodeService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.projectcode.ProjectCodeService`

**Description:**

Project codes are user-defined codes to classify and categorize projects across the enterprise. They are defined globally. Project codes are hierarchical objects.

You can organize the projects in your EPS in groups according to specific categories, such as location and manager, using project codes. You can define unlimited hierarchical project codes to fulfill the filtering, sorting, and reporting requirements for your projects, and arrange them hierarchically for easier management and assignment.

The Project Codes dictionary is global to the entire enterprise. Assign a project code value to projects for each project code you create.

Use project codes to group projects, consolidate large amounts of information, and to distinguish one project from another. All projects assigned a value for a code are grouped by their corresponding values when you group and sort by project code in the Project Management application.

### CreateProjectCodes Operation

Description: Creates multiple ProjectCode objects in the database. You can create up to 1000 ProjectCode objects with a single call.

**Service:** *ProjectCode Service (on page 301)*

Style: Document/literal wrapped

Input:

Message: CreateProjectCodes

Elements: ProjectCode elements that contain **ProjectCode Fields** (on page 305) fields

Required fields:

- ▶ CodeTypeObjectId
- ▶ CodeValue

Output:

Message: CreateProjectCodesResponse

Output: Zero to many ObjectId elements

## ReadProjectCodes Operation

Description: Reads ProjectCode objects from the database.

**Service:** *ProjectCode Service (on page 301)*

Style: Document/literal wrapped

Input:

Message: ReadProjectCodes

Elements: One to many field names from the **ProjectCode Fields** (on page 305) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectCodesResponse

Output: Zero to many ProjectCode elements that contain **ProjectCode Fields** (on page 305) fields.

## UpdateProjectCodes Operation

Description: Updates multiple ProjectCode objects in the database. You can update up to 1000 ProjectCode objects with a single call.

**Service:** *ProjectCode Service (on page 301)*

Style: Document/literal wrapped

Input:

Message: UpdateProjectCodes

Elements: ProjectCode elements that contain **ProjectCode Fields** (on page 305) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateProjectCodesResponse

Output: boolean

## DeleteProjectCodes Operation

Description: Deletes multiple ProjectCode objects in the database. You can delete up to 1000 ProjectCode objects with a single call.

**Service:** *ProjectCode Service (on page 301)*

Style: Document/literal wrapped

Input:

Message: DeleteProjectCodes  
Elements: One to many ObjectId elements

Output:

Message: DeleteProjectCodesResponse  
Output: boolean

### GetFieldLengthProjectCode Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ProjectCode Service (on page 301)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectCode  
Elements: FieldLength

Output:

Message: GetFieldLengthProjectCodeResponse  
Elements: One to many FieldLengthProjectCodes.

### ReadProjectCodePath Operation

Description: Reads ProjectCode objects from the database.

**Service:** *ProjectCode Service (on page 301)*

Style: Document/literal wrapped

Input:

Message: ReadProjectCodePath  
Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the ***ProjectCode Fields*** (on page 305) field list.

Output:

Message: ReadProjectCodePathResponse  
Output: Zero to many ProjectCode elements that contain ProjectCode fields. Returns the ProjectCode element that you specify and all of its ancestor elements.

### LoadProjects Operation

Description: Loads projects to which the specified project code is assigned.



**Service: ProjectCode Service (on page 301)**

Input:

Message: LoadProjects

Elements:

Name	Type	Description	Required
ObjectId	int	Unique identifier for the project code.	Yes
Fields	string	One or more <b>Project Fields</b> (on page 597) from the project fields list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No

Output:

Message: LoadProjectsResponse

Elements:

Name	Type	Description
ProjectObjectIds	string	Unique identifiers for the projects returned on operation success.

**ProjectCode Fields**

Field	Type	Read Only	Filterable Orderable	Description
CodeTypeName	string restricted to maxLength(60)	X	X	The name of the parent code type for this code.

CodeTypeObjectid	int		X	The unique ID of the parent project code type.
CodeValue	string restricted to maxLength(60)		X	The value of the project code.
CreateDate	dateTime	X	X	The date this project code was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this project code.
Description	string restricted to maxLength(100)		X	The description of the project code.
LastUpdateDate	dateTime	X	X	The date this project code was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this project code.
Objectid	int		X	The unique ID generated by the system.
ParentObjectid	int		X	The unique ID of the parent project code of this project code in the hierarchy.
SequenceNumber	int		X	The sequence number for sorting.
Weight	double restricted to minInclusive(0.0)		X	The weight for this code value.

	maxInclusive(999999.0)			
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## ProjectCodeType Service

### Operations:

**CreateProjectCodeTypes Operation** (on page 307)

**ReadProjectCodeTypes Operation** (on page 308)

**UpdateProjectCodeTypes Operation** (on page 308)

**DeleteProjectCodeTypes Operation** (on page 309)

**GetFieldLengthProjectCodeType Operation** (on page 309)

### WSDL: ProjectCodeType.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectCodeType/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ProjectCodeTypeService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ProjectCodeTypeService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.projectcodetype.ProjectCodeTypeService`

### Description:

Project code types provide a way of classifying project codes. Project codes are user-defined codes to classify and categorize projects across the enterprise. They are defined globally.

You can organize the projects in your EPS in groups according to specific categories, such as location and manager, using project codes. You can define unlimited hierarchical project codes to fulfill the filtering, sorting, and reporting requirements for your projects, and arrange them hierarchically for easier management and assignment.

The Project Codes dictionary is global to the entire enterprise. Assign a project code value to projects for each project code you create.

Use project codes to group projects, consolidate large amounts of information, and to distinguish one project from another. All projects assigned a value for a code are grouped by their corresponding values when you group and sort by project code in the Project Management application.

## CreateProjectCodeTypes Operation

Description: Creates multiple ProjectCodeType objects in the database. You can create up to 1000 ProjectCodeType objects with a single call.

**Service:** *ProjectCodeType Service (on page 307)*

Style: Document/literal wrapped

Input:

Message: CreateProjectCodeTypes

Elements: ProjectCodeType elements that contain ***ProjectCodeType Fields*** (on page 309) fields

Required fields: You must supply the Name field.

Output:

Message: CreateProjectCodeTypesResponse

Output: Zero to many ObjectID elements

### ReadProjectCodeTypes Operation

Description: Reads ProjectCodeType objects from the database.

**Service:** *ProjectCodeType Service (on page 307)*

Style: Document/literal wrapped

Input:

Message: ReadProjectCodeTypes

Elements: One to many field names from the ***ProjectCodeType Fields*** (on page 309) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectCodeTypesResponse

Output: Zero to many ProjectCodeType elements that contain ***ProjectCodeType Fields*** (on page 309) fields.

### UpdateProjectCodeTypes Operation

Description: Updates multiple ProjectCodeType objects in the database. You can update up to 1000 ProjectCodeType objects with a single call.

**Service:** *ProjectCodeType Service (on page 307)*

Style: Document/literal wrapped

Input:

Message: UpdateProjectCodeTypes

Elements: ProjectCodeType elements that contain **ProjectCodeType Fields** (on page 309) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateProjectCodeTypesResponse

Output: boolean

### DeleteProjectCodeTypes Operation

Description: Deletes multiple ProjectCodeType objects in the database. You can delete up to 1000 ProjectCodeType objects with a single call.

**Service:** *ProjectCodeType Service* (on page 307)

Style: Document/literal wrapped

Input:

Message: DeleteProjectCodeTypes

Elements: One to many ObjectId elements

Output:

Message: DeleteProjectCodeTypesResponse

Output: boolean

### GetFieldLengthProjectCodeType Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ProjectCodeType Service* (on page 307)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectCodeType

Elements: FieldLength

Output:

Message: GetFieldLengthProjectCodeTypeResponse

Elements: One to many FieldLengthProjectCodeTypes.

### ProjectCodeType Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this project code type

				was created.
CreateUser	string	X	X	The name of the user that created this project code type.
IsSecureCode	boolean		X	the flag indicating whether this is a secure Project Code Type.
LastUpdateDate	dateTime	X	X	The date this project code type was last updated.
LastUpdateUser	string	X	X	The name of the user that last updated this project code type.
Length	int restricted to minInclusive(1) maxInclusive(60)		X	The maximum number of characters allowed for values of this project code.
MaxCodeValueWeight	double restricted to minInclusive(0.0) maxInclusive(999999.0)		X	The maximum weight of the code values for this project code type.
Name	string restricted to maxLength(60)		X	The name of the project code type.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.
Weight	double restricted to minInclusive(		X	The weight for this project code type.

	0.0) maxInclusive( 999999.0)			
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## ResourceCode Service

### Operations:

- CreateResourceCodes Operation** (on page 311)
- ReadResourceCodes Operation** (on page 312)
- UpdateResourceCodes Operation** (on page 312)
- DeleteResourceCodes Operation** (on page 313)
- ReadResourceCodePath Operation** (on page 313)
- LoadResources Operation** (on page 314)
- GetFieldLengthResourceCode Operation** (on page 313)

### WSDL: ResourceCode.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceCode/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceCodeService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ResourceCodeService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resourcecode.ResourceCodeService`

### Description:

Resource codes are user-defined codes to classify and categorize resources across the enterprise. They are defined globally.

With potentially hundreds of resources being used across an enterprise of projects, codes provide another method for filtering the resources you need to access quickly, or for grouping resources for analysis and summarization in layouts. You can also use resource codes to group, sort, and filter resources in profiles and spreadsheets.

## CreateResourceCodes Operation

Description: Creates multiple ResourceCode objects in the database. You can create up to 1000 ResourceCode objects with a single call.

**Service:** *ResourceCode Service* (on page 311)

Style: Document/literal wrapped

Input:

Message: CreateResourceCodes

Elements: ResourceCode elements that contain **ResourceCode Fields** (on page 315) fields

Required fields:

- ▶ CodeTypeObjectId
- ▶ CodeValue

Output:

Message: CreateResourceCodesResponse

Output: Zero to many ObjectId elements

### ReadResourceCodes Operation

Description: Reads ResourceCode objects from the database.

**Service:** *ResourceCode Service* (on page 311)

Style: Document/literal wrapped

Input:

Message: ReadResourceCodes

Elements: One to many field names from the **ResourceCode Fields** (on page 315) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceCodesResponse

Output: Zero to many ResourceCode elements that contain ResourceCode fields.

### UpdateResourceCodes Operation

Description: Updates multiple ResourceCode objects in the database. You can update up to 1000 ResourceCode objects with a single call.

**Service:** *ResourceCode Service* (on page 311)

Style: Document/literal wrapped

Input:

Message: UpdateResourceCodes

Elements: ResourceCode elements that contain **ResourceCode Fields** (on page 315) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateResourceCodesResponse



Output: boolean

### DeleteResourceCodes Operation

Description: Deletes multiple ResourceCode objects in the database. You can delete up to 1000 ResourceCode objects with a single call.

**Service:** *ResourceCode Service (on page 311)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceCodes

Elements: One to many ObjectId elements

Output:

Message: DeleteResourceCodesResponse

Output: boolean

### GetFieldLengthResourceCode Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceCode Service (on page 311)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceCode

Elements: FieldLength

Output:

Message: GetFieldLengthResourceCodeResponse

Elements: One to many FieldLengthResourceCodes.

### ReadResourceCodePath Operation

Description: Reads ResourceCode objects from the database.

**Service:** *ResourceCode Service (on page 311)*

Style: Document/literal wrapped

Input:

Message: ReadResourceCodePath

Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the **ResourceCode Fields** (on page 315) field list.

Output:

Message: ReadResourceCodePathResponse

Output: Zero to many ResourceCode elements that contain **ResourceCode Fields** (on page 315) fields.

### LoadResources Operation

Description: Loads resources associated to the specified resource code.

Input:

Message: LoadResources

Elements:

Name	Type	Description	Required
ObjectId	int	The unique identifier for the resource code.	Yes
Fields	string	One or more <b>ResourceCode Fields</b> (on page 315) from the Resource Codes field list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No

Output:

Message: LoadResourcesResponse

Elements:

Name	Type	Description
ResourceObjectIds	string	One or more unique identifiers for resources returned on operation completion.

## ResourceCode Fields

Field	Type	Read Only	Filterable Orderable	Description
CodeConcat Name	string	X		The resource code name with its associated hierarchy. Required for IPMDAR.
CodeType Name	string restricted to maxLength(40)	X	X	The name of the parent code type for this code.
CodeType ObjectId	int		X	The unique ID of the parent resource code type.
CodeValue	string restricted to maxLength(32)		X	The value of the resource code.
CreateDate	dateTime	X	X	The date this resource code was created.
CreateUser	string	X	X	The name of the user that created this resource code.
Description	string restricted to maxLength(100)		X	The description of the resource code.
LastUpdate Date	dateTime	X	X	The date this resource code was last updated.
LastUpdate User	string	X	X	The name of the user that last updated this resource code.
ObjectId	int		X	The unique ID generated by the system.

ParentObjectid	int		X	The unique ID of the parent resource code of this resource code in the hierarchy.
SequenceNumber	int		X	The sequence number for sorting.

## ResourceCodeType Service

### Operations:

- CreateResourceCodeTypes Operation** (on page 317)
- ReadResourceCodeTypes Operation** (on page 317)
- UpdateResourceCodeTypes Operation** (on page 317)
- DeleteResourceCodeTypes Operation** (on page 318)
- GetFieldLengthResourceCodeType Operation** (on page 318)

### WSDL: ResourceCodeType.wsdl

Primary Key Field: Objectid

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceCodeType/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/ResourceCodeTypeService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/ResourceCodeTypeService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resourcecodetype.ResourceCodeTypeService`

### Description:

Resource code types provide a way of classifying resource codes. Resource codes are user-defined codes to classify and categorize resources across the enterprise. They are defined globally.

With potentially hundreds of resources being used across an enterprise of projects, codes provide another method for filtering the resources you need to access quickly, or for grouping resources for analysis and summarization in layouts. You can also use resource codes to group, sort, and filter resources in profiles and spreadsheets.

## CreateResourceCodeTypes Operation

Description: Creates multiple ResourceCodeType objects in the database. You can create up to 1000 ResourceCodeType objects with a single call.

**Service:** *ResourceCodeType Service (on page 316)*

Style: Document/literal wrapped

Input:

Message: CreateResourceCodeTypes

Elements: ResourceCodeType elements that contain **ResourceCodeType Fields** (on page 319) fields

Required fields: You must supply the Name field.

Output:

Message: CreateResourceCodeTypesResponse

Output: Zero to many ObjectID elements

## ReadResourceCodeTypes Operation

Description: Reads ResourceCodeType objects from the database.

**Service:** *ResourceCodeType Service (on page 316)*

Style: Document/literal wrapped

Input:

Message: ReadResourceCodeTypes

Elements: One to many field names from the **ResourceCodeType Fields** (on page 319) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceCodeTypesResponse

Output: Zero to many ResourceCodeType elements that contain **ResourceCodeType Fields** (on page 319) fields.

## UpdateResourceCodeTypes Operation

Description: Updates multiple ResourceCodeType objects in the database. You can update up to 1000 ResourceCodeType objects with a single call.

**Service:** *ResourceCodeType Service (on page 316)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceCodeTypes

Elements: ResourceCodeType elements that contain **ResourceCodeType Fields** (on page 319) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateResourceCodeTypesResponse

Output: boolean

### DeleteResourceCodeTypes Operation

Description: Deletes multiple ResourceCodeType objects in the database. You can delete up to 1000 ResourceCodeType objects with a single call.

**Service:** *ResourceCodeType Service (on page 316)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceCodeTypes

Elements: One to many ObjectId elements

Output:

Message: DeleteResourceCodeTypesResponse

Output: boolean

### GetFieldLengthResourceCodeType Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceCodeType Service (on page 316)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceCodeType

Elements: FieldLength

Output:

Message: GetFieldLengthResourceCodeTypeResponse

Elements: One to many FieldLengthResourceCodeTypes.

## ResourceCodeType Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this resource code type was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this resource code type.
IsSecureCode	boolean		X	the flag indicating whether this is a secure Resource Code Type.
LastUpdateDate	dateTime	X	X	The date this resource code type was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this resource code type.
Length	int restricted to minInclusive(1) maxInclusive(40)		X	The maximum number of characters allowed for values of this resource code.
Name	string restricted to maxLength(32)		X	The name of the resource code type.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.

## RoleCode Service

### Operations:

**CreateRoleCodes Operation** (on page 320)

**ReadRoleCodes Operation** (on page 321)

**UpdateRoleCodes Operation** (on page 321)

**DeleteRoleCodes Operation** (on page 322)

**ReadRoleCodePath Operation** (on page 322)

**LoadRoles Operation** (on page 323)

**GetFieldLengthRoleCode Operation** (on page 322)

### WSDL: RoleCode.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RoleCode/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RoleCodeService?wsdl>

<https://<hostname>:<port number>/p6ws/services/RoleCodeService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.rolecode.RoleCodeService`

### Description:

Role codes are user-defined codes to classify and categorize roles across the enterprise. They are defined globally.

With potentially hundreds of roles being used across an enterprise of projects, codes provide another method for filtering the roles you need to access quickly, or for grouping roles for analysis and summarization in layouts. You can also use role codes to group, sort, and filter roles in profiles and spreadsheets.

## CreateRoleCodes Operation

Description: Creates multiple RoleCode objects in the database. You can create up to 1000 RoleCode objects with a single call.

### Service: *RoleCode Service* (on page 320)

Style: Document/literal wrapped

Input:

Message: CreateRoleCodes

Elements: RoleCode elements that contain **RoleCode Fields** (on page 324) fields

Required fields:



- ▶ CodeTypeObjectId
- ▶ CodeValue

Output:

Message: CreateRoleCodesResponse

Output: Zero to many ObjectId elements

### ReadRoleCodes Operation

Description: Reads RoleCode objects from the database.

**Service:** *RoleCode Service (on page 320)*

Style: Document/literal wrapped

Input:

Message: ReadRoleCodes

Elements: One to many field names from the **RoleCode Fields** (on page 324) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRoleCodesResponse

Output: Zero to many RoleCode elements that contain RoleCode fields.

### UpdateRoleCodes Operation

Description: Updates multiple RoleCode objects in the database. You can update up to 1000 RoleCode objects with a single call.

**Service:** *RoleCode Service (on page 320)*

Style: Document/literal wrapped

Input:

Message: UpdateRoleCodes

Elements: RoleCode elements that contain **RoleCode Fields** (on page 324) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRoleCodesResponse

Output: boolean

### DeleteRoleCodes Operation

Description: Deletes multiple RoleCode objects in the database. You can delete up to 1000 RoleCode objects with a single call.

**Service:** *RoleCode Service* (on page 320)

Style: Document/literal wrapped

Input:

Message: DeleteRoleCodes

Elements: One to many ObjectId elements

Output:

Message: DeleteRoleCodesResponse

Output: boolean

### GetFieldLengthRoleCode Operation

Description: Returns length of variable character fields for a BO.

**Service:** *RoleCode Service* (on page 320)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRoleCode

Elements: FieldLength

Output:

Message: GetFieldLengthRoleCodeResponse

Elements: One to many FieldLengthRoleCodes.

### ReadRoleCodePath Operation

Description: Reads RoleCode objects from the database.

**Service:** *RoleCode Service* (on page 320)

Style: Document/literal wrapped

Input:

Message: ReadRoleCodePath

Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the **RoleCode Fields** (on page 324) field list.

Output:

Message: ReadRoleCodePathResponse

Output: Zero to many RoleCode elements that contain **RoleCode Fields** (on page 324) fields.

## LoadRoles Operation

Description: Loads roles associated to the specified role code.

Input:

Message: LoadRoles

Elements:

Name	Type	Description	Required
ObjectId	int	The unique identifier for the role code.	Yes
Fields	string	One or more <b>RoleCode Fields</b> (on page 324) from the Role Codes field list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No

Output:

Message: LoadRolesResponse

Elements:

Name	Type	Description
RoleObjectIds	string	One or more unique identifiers for roles returned on operation completion.

## RoleCode Fields

Field	Type	Read Only	Filterable Orderable	Description
CodeTypeName	string restricted to maxLength(40)	X	X	The name of the parent code type for this code.
CodeTypeObjectId	int		X	The unique ID of the parent resource code type.
CodeValue	string restricted to maxLength(32)		X	The value of the resource code.
CreateDate	dateTime	X	X	The date this resource code was created.
CreateUser	string	X	X	The name of the user that created this resource code.
Description	string restricted to maxLength(100)		X	The description of the resource code.
LastUpdateDate	dateTime	X	X	The date this resource code was last updated.
LastUpdateUser	string	X	X	The name of the user that last updated this resource code.
ObjectId	int		X	The unique ID generated by the system.
ParentObjectId	int		X	The unique ID of the parent resource code of this resource code in the hierarchy.

SequenceNumber	int		X	The sequence number for sorting.
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## RoleCodeType Service

### Operations:

**CreateRoleCodeTypes Operation** (on page 325)

**ReadRoleCodeTypes Operation** (on page 326)

**UpdateRoleCodeTypes Operation** (on page 326)

**DeleteRoleCodeTypes Operation** (on page 327)

**GetFieldLengthRoleCodeType Operation** (on page 327)

### WSDL: RoleCodeType.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RoleCodeType/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RoleCodeTypeService?wsdl>

<https://<hostname>:<port number>/p6ws/services/RoleCodeTypeService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.Rolecodetype.RoleCodeTypeService`

### Description:

Role code types provide a way of classifying role codes. Role codes are user-defined codes to classify and categorize roles across the enterprise. They are defined globally.

With potentially hundreds of roles being used across an enterprise of projects, codes provide another method for filtering the roles you need to access quickly, or for grouping roles for analysis and summarization in layouts. You can also use role codes to group, sort, and filter roles in profiles and spreadsheets.

## CreateRoleCodeTypes Operation

Description: Creates multiple RoleCodeType objects in the database. You can create up to 1000 RoleCodeType objects with a single call.

**Service:** *RoleCodeType Service* (on page 325)

Style: Document/literal wrapped

Input:

Message: CreateRoleCodeTypes

Elements: RoleCodeType elements that contain **RoleCodeType Fields** (on page 327) fields

Required fields: You must supply the Name field.

Output:

Message: CreateRoleCodeTypesResponse

Output: Zero to many ObjectId elements

### ReadRoleCodeTypes Operation

Description: Reads RoleCodeType objects from the database.

**Service:** *RoleCodeType Service* (on page 325)

Style: Document/literal wrapped

Input:

Message: ReadRoleCodeTypes

Elements: One to many field names from the **RoleCodeType Fields** (on page 327) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRoleCodeTypesResponse

Output: Zero to many RoleCodeType elements that contain **RoleCodeType Fields** (on page 327) fields.

### UpdateRoleCodeTypes Operation

Description: Updates multiple RoleCodeType objects in the database. You can update up to 1000 RoleCodeType objects with a single call.

**Service:** *RoleCodeType Service* (on page 325)

Style: Document/literal wrapped

Input:

Message: UpdateRoleCodeTypes

Elements: RoleCodeType elements that contain **RoleCodeType Fields** (on page 327) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRoleCodeTypesResponse

Output: boolean

## DeleteRoleCodeTypes Operation

Description: Deletes multiple RoleCodeType objects in the database. You can delete up to 1000 RoleCodeType objects with a single call.

**Service:** *RoleCodeType Service (on page 325)*

Style: Document/literal wrapped

Input:

Message: DeleteRoleCodeTypes

Elements: One to many ObjectId elements

Output:

Message: DeleteRoleCodeTypesResponse

Output: boolean

## GetFieldLengthRoleCodeType Operation

Description: Returns length of variable character fields for a BO.

**Service:** *RoleCodeType Service (on page 325)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRoleCodeType

Elements: FieldLength

Output:

Message: GetFieldLengthRoleCodeTypeResponse

Elements: One to many FieldLengthRoleCodeTypes.

## RoleCodeType Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this role code type was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this role code type.
IsSecureCode	boolean		X	the flag indicating whether this is a

				secure role code type.
LastUpdate Date	dateTime	X	X	The date this role code type was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this role code type.
Length	int restricted to minInclusive(1) maxInclusive(40)		X	The maximum number of characters allowed for values of this role code.
Name	string restricted to maxLength(32)		X	The name of the role code type.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.

## ResourceAssignmentCode Service

### Operations:

**CreateResourceAssignmentCodes Operation** (on page 329)

**ReadResourceAssignmentCodes Operation** (on page 329)

**UpdateResourceAssignmentCodes Operation** (on page 330)

**DeleteResourceAssignmentCodes Operation** (on page 330)

**ReadResourceAssignmentCodePath Operation** (on page 331)

**LoadResourceAssignments Operation** (on page 331)

**GetFieldLengthResourceAssignmentCode Operation** (on page 331)



## WSDL: ResourceAssignmentCode.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceAssignmentCode/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceAssignmentCodeService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/ResourceAssignmentCodeService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resourcecode.ResourceAssignmentCodeService`

### Description:

Resource and role assignment codes are user-defined codes to classify and categorize resource and role assignments across the enterprise. They are defined globally.

With potentially hundreds of resources and roles being assigned to activities across an enterprise of projects, assignment codes provide another method for filtering the assignments you need to access quickly, or for grouping assignments for analysis and summarization in layouts. You can also use assignment codes to group, sort, and filter assignments in profiles and spreadsheets.

## CreateResourceAssignmentCodes Operation

Description: Creates multiple ResourceAssignmentCode objects in the database. You can create up to 1000 ResourceAssignmentCode objects with a single call.

**Service:** *ResourceAssignmentCode Service (on page 328)*

Style: Document/literal wrapped

Input:

Message: CreateResourceAssignmentCodes

Elements: ResourceAssignmentCode elements that contain **ResourceAssignmentCode Fields** (on page 332) fields

Required fields:

- ▶ CodeTypeObjectId
- ▶ CodeValue

Output:

Message: CreateResourceAssignmentCodesResponse

Output: Zero to many ObjectId elements

## ReadResourceAssignmentCodes Operation

Description: Reads ResourceAssignmentCode objects from the database.

**Service:** *ResourceAssignmentCode Service (on page 328)*

Style: Document/literal wrapped

Input:

Message: ReadResourceAssignmentCodes

Elements: One to many field names from the **ResourceAssignmentCode Fields** (on page 332) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceAssignmentCodesResponse

Output: Zero to many ResourceAssignmentCode elements that contain **ResourceAssignmentCode Fields** (on page 332).

### UpdateResourceAssignmentCodes Operation

Description: Updates multiple ResourceAssignmentCode objects in the database. You can update up to 1000 ResourceAssignmentCode objects with a single call.

**Service:** *ResourceAssignmentCode Service (on page 328)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceAssignmentCodes

Elements: ResourceAssignmentCode elements that contain **ResourceAssignmentCode Fields** (on page 332) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateResourceAssignmentCodesResponse

Output: boolean

### DeleteResourceAssignmentCodes Operation

Description: Deletes multiple ResourceAssignmentCode objects in the database. You can delete up to 1000 ResourceAssignmentCode objects with a single call.

**Service:** *ResourceAssignmentCode Service (on page 328)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceAssignmentCodes

Elements: One to many ObjectID elements

Output:

Message: DeleteResourceCodesAssignmentResponse

Output: boolean

### GetFieldLengthResourceAssignmentCode Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceAssignmentCode Service (on page 328)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceAssignmentCode

Elements: FieldLength

Output:

Message: GetFieldLengthResourceAssignmentCodeResponse

Elements: One to many FieldLengthResourceAssignmentCodes.

### ReadResourceAssignmentCodePath Operation

Description: Reads ResourceAssignmentCode objects from the database.

**Service:** *ResourceAssignmentCode Service (on page 328)*

Style: Document/literal wrapped

Input:

Message: ReadResourceAssignmentCodePath

Elements:

- ▶ One to many ObjectID elements
- ▶ One to many field names from the **ResourceAssignmentCode Fields** (on page 332) field list.

Output:

Message: ReadResourceAssignmentCodePathResponse

Output: Zero to many ResourceAssignmentCode elements that contain **ResourceAssignmentCode Fields** (on page 332) fields.

### LoadResourceAssignments Operation

Description: Loads resource and role assignments associated to the specified resource assignment code.

Input:

Message: LoadResourceAssignments

Elements:

Name	Type	Description	Required
ObjectId	int	The unique identifier for the resource assignment code.	Yes
Fields	string	One or more <b>ResourceAssignmentCodeFields</b> (on page 332) from the Resource Assignment Codes field list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No

Output:

Message: LoadResourceAssignmentsResponse

Elements:

Name	Type	Description
ResourceAssignmentObjectIds	string	One or more unique identifiers for resource and role assignments returned on operation completion.

### ResourceAssignmentCode Fields

Field	Type	Read Only	Filterable Orderable	Description
CodeTypeName	string restricted to	X	X	The name of the parent code type

	maxLength(40)			for this code.
CodeTypeObjectId	int		X	The unique ID of the parent code type.
CodeValue	string restricted to maxLength(32)		X	The value of the resource assignment code.
CreateDate	dateTime	X	X	The date this code was created.
CreateUser	string	X	X	The name of the user that created this code.
Description	string restricted to maxLength(100)		X	The description of the code.
LastUpdateDate	dateTime	X	X	The date this code was last updated.
LastUpdateUser	string	X	X	The name of the user that last updated this code.
ObjectId	int		X	The unique ID generated by the system.
ParentObjectId	int		X	The unique ID of the parent code of this code in the hierarchy.
SequenceNumber	int		X	The sequence number for sorting.

## ResourceAssignmentCodeType Service

### Operations:

- CreateResourceAssignmentCodeTypes Operation** (on page 334)
- ReadResourceAssignmentCodeTypes Operation** (on page 335)
- UpdateResourceAssignmentCodeTypes Operation** (on page 335)
- DeleteResourceAssignmentCodeTypes Operation** (on page 336)
- GetFieldLengthResourceAssignmentCodeType Operation** (on page 336)

### WSDL: ResourceAssignmentCodeType.wsdl

Primary Key Field: ObjectId

Target Namespace:

<http://xmlns.oracle.com/Primavera/P6/WS/ResourceAssignmentCodeType/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceAssignmentCodeTypeService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/ResourceAssignmentCodeTypeService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resourcecodetype.ResourceAssignmentCodeTypeService`

### Description:

Resource and role assignment code types provide a way of classifying assignment codes. Assignment codes are user-defined codes to classify and categorize resource and role assignments across the enterprise. They are defined globally.

With potentially hundreds of resources and roles being assigned to activities across an enterprise of projects, codes provide another method for filtering the assignments you need to access quickly, or for grouping assignments for analysis and summarization in layouts. You can also use assignment codes to group, sort, and filter assignments in profiles and spreadsheets.

## CreateResourceAssignmentCodeTypes Operation

Description: Creates multiple ResourceAssignmentCodeType objects in the database. You can create up to 1000 ResourceAssignmentCodeType objects with a single call.

**Service:** *ResourceAssignmentCodeType Service* (on page 334)

Style: Document/literal wrapped

Input:

Message: CreateResourceAssignmentCodeTypes  
 Elements: ResourceAssignmentCodeType elements that contain **ResourceAssignmentCodeType Fields** (on page 336) fields

Required fields: You must supply the Name field.

Output:

Message: CreateResourceAssignmentCodeTypesResponse

Output: Zero to many ObjectId elements

### ReadResourceAssignmentCodeTypes Operation

Description: Reads ResourceAssignmentCodeType objects from the database.

**Service:** *ResourceAssignmentCodeType Service (on page 334)*

Style: Document/literal wrapped

Input:

Message: ReadResourceAssignmentCodeTypes

Elements: One to many field names from the **ResourceAssignmentCodeType Fields** (on page 336) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceAssignmentCodeTypesResponse

Output: Zero to many ResourceAssignmentCodeType elements that contain **ResourceAssignmentCodeType Fields** (on page 336) fields.

### UpdateResourceAssignmentCodeTypes Operation

Description: Updates multiple ResourceAssignmentCodeType objects in the database. You can update up to 1000 ResourceAssignmentCodeType objects with a single call.

**Service:** *ResourceAssignmentCodeType Service (on page 334)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceAssignmentCodeTypes

Elements: ResourceAssignmentCodeType elements that contain **ResourceAssignmentCodeType Fields** (on page 336) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateResourceAssignmentCodeTypesResponse

Output: boolean

### DeleteResourceAssignmentCodeTypes Operation

Description: Deletes multiple ResourceAssignmentCodeType objects in the database. You can delete up to 1000 ResourceAssignmentCodeType objects with a single call.

**Service:** *ResourceAssignmentCodeType Service (on page 334)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceAssignmentCodeTypes

Elements: One to many ObjectID elements

Output:

Message: DeleteResourceAssignmentCodeTypesResponse

Output: boolean

### GetFieldLengthResourceAssignmentCodeType Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceAssignmentCodeType Service (on page 334)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceAssignmentCodeType

Elements: FieldLength

Output:

Message: GetFieldLengthResourceAssignmentCodeTypeResponse

Elements: One to many FieldLengthResourceAssignmentCodeTypes.

### ResourceAssignmentCodeType Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this code type was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this code type.
IsSecureCode	boolean		X	The flag indicating whether this is a secure Resource



				Assignment Code Type.
LastUpdate Date	dateTime	X	X	The date this code type was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this code type.
Length	int restricted to minInclusive(1) maxInclusive(40)		X	The maximum number of characters allowed for values of this code.
Name	string restricted to maxLength(32)		X	The name of the code type.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.

## UDFCode Service

### Operations:

**CreateUDFCodes Operation** (on page 338)

**ReadUDFCodes Operation** (on page 338)

**UpdateUDFCodes Operation** (on page 339)

**DeleteUDFCodes Operation** (on page 339)

**GetFieldLengthUDFCode Operation** (on page 340)

### WSDL: UDFCode.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/UDFCode/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/UDFCodeService?wsdl

https://<hostname>:<port number>/p6ws/services/UDFCodeService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.udfcode.UDFCodeService

**Description:**

UDF codes, also known as issue codes, allow you to organize and categorize project issues in a way that is meaningful to you. Their UDF type is 'Code.' For example, you can create a UDF Code, Severity, and subsequently create code values: 'High', 'Medium', and 'Low'. You can assign each of these code values to project issues across multiple projects, enabling you to categorize each project issue according how severe it is. UDF codes are stored in a non-hierarchical list.

### CreateUDFCodes Operation

Description: Creates multiple UDFCode objects in the database. You can create up to 1000 UDFCode objects with a single call.

**Service:** *UDFCode Service (on page 337)*

Style: Document/literal wrapped

Input:

Message: CreateUDFCodes

Elements: UDFCode elements that contain **UDFCode Fields** (on page 340) fields

Required fields: The following fields are required when creating the UDFCode object:

- ▶ CodeTypeObjectId
- ▶ CodeValue
- ▶ Description

Output:

Message: CreateUDFCodesResponse

Output: Zero to many ObjectId elements

### ReadUDFCodes Operation

Description: Reads UDFCode objects from the database.

**Service:** *UDFCode Service (on page 337)*

Style: Document/literal wrapped

Input:

Message: ReadUDFCodes

Elements: One to many field names from the **UDFCode Fields** (on page 340) field list. You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadUDFCodesResponse

Output: Zero to many UDFCode elements that contain **UDFCode Fields** (on page 340) fields.

### UpdateUDFCodes Operation

Description: Updates multiple UDFCode objects in the database. You can update up to 1000 UDFCode objects with a single call.

**Service:** *UDFCode Service* (on page 337)

Style: Document/literal wrapped

Input:

Message: UpdateUDFCodes

Elements: UDFCode elements that contain **UDFCode Fields** (on page 340) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateUDFCodesResponse

Output: boolean

### DeleteUDFCodes Operation

Description: Deletes multiple UDFCode objects in the database. You can delete up to 1000 UDFCode objects with a single call.

**Service:** *UDFCode Service* (on page 337)

Style: Document/literal wrapped

Input:

Message: DeleteUDFCodes

Elements: One to many ObjectId elements

Output:

Message: DeleteUDFCodesResponse

Output: boolean

## GetFieldLengthUDFCode Operation

Description: Returns length of variable character fields for a BO.

**Service:** *UDFCode Service (on page 337)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthUDFCode

Elements: FieldLength

Output:

Message: GetFieldLengthUDFCodeResponse

Elements: One to many FieldLengthUDFCodes.

## UDFCode Fields

Field	Type	Read Only	Filterable Orderable	Description
CodeTypeObjectId	int		X	The unique ID of the code type.
CodeTypeTitle	string	X	X	The title of the parent code type for this code.
CodeValue	string restricted to maxLength(60)		X	The short ID that uniquely identifies the code within the code type.
CreateDate	dateTime	X	X	The date this code was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this code.
Description	string restricted to maxLength(120)		X	The description of the code.
LastUpdate	dateTime	X	X	The date this code

Date				was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this code.
ObjectId	int		X	The unique ID generated by the system.
SequenceNumber	int		X	The sequence number for sorting.

## UDFType Service

### Operations:

- CreateUDFTypes Operation** (on page 342)
- ReadUDFTypes Operation** (on page 342)
- UpdateUDFTypes Operation** (on page 343)
- DeleteUDFTypes Operation** (on page 343)
- GetFieldLengthUDFType Operation** (on page 343)
- GetUDFFieldName Operation** (on page 344)

### WSDL: UDFType.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/UDFType/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/UDFTypeService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/UDFTypeService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.udftype.UDFTypeService`

### Description:

User-defined fields (UDFs) enable users to add custom fields and values to the project database. For example, additional activity data, such as delivery dates and purchase order numbers, can be tracked. Business objects that support UDFs are Activity, ActivityExpense, ActivityStep, ActivityStepTemplateItem, Document, Project, ProjectIssue, ProjectRisk, Resource, ResourceAssignment, and WBS. Note that UDFs with a data type of Code may only be assigned to ProjectIssues.

Use the UDFValue Service to assign a UDF to a particular business object.

### CreateUDFTypes Operation

Description: Creates multiple UDFType objects in the database. You can create up to 1000 UDFType objects with a single call.

**Service:** *UDFType Service* (on page 341)

Style: Document/literal wrapped

Input:

Message: CreateUDFTypes

Elements: UDFType elements that contain **UDFType Fields** (on page 344) fields

Required fields:

- ▶ SubjectArea
- ▶ Title
- ▶ DataType

Output:

Message: CreateUDFTypesResponse

Output: Zero to many ObjectId elements

### ReadUDFTypes Operation

Description: Reads UDFType objects from the database.

**Service:** *UDFType Service* (on page 341)

Style: Document/literal wrapped

Input:

Message: ReadUDFTypes

Elements: One to many field names from the **UDFType Fields** (on page 344) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadUDFTypesResponse

Output: Zero to many UDFType elements that contain UDFType fields.

### UpdateUDFTypes Operation

Description: Updates multiple UDFType objects in the database. You can update up to 1000 UDFType objects with a single call.

**Service:** *UDFType Service (on page 341)*

Style: Document/literal wrapped

Input:

Message: UpdateUDFTypes

Elements: UDFType elements that contain **UDFType Fields** (on page 344) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateUDFTypesResponse

Output: boolean

### DeleteUDFTypes Operation

Description: Deletes multiple UDFType objects in the database. You can delete up to 1000 UDFType objects with a single call.

**Service:** *UDFType Service (on page 341)*

Style: Document/literal wrapped

Input:

Message: DeleteUDFTypes

Elements: One to many ObjectID elements

Output:

Message: DeleteUDFTypesResponse

Output: boolean

### GetFieldLengthUDFType Operation

Description: Returns length of variable character fields for a BO.

**Service:** *UDFType Service (on page 341)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthUDFType

Elements: FieldLength

Output:

Message: GetFieldLengthUDFTypeResponse  
 Elements: One to many FieldLengthUDFTypes.

**GetUDFFieldName Operation**

Description: Gets composed field names that are used for loading UDF data.

Service: **UDFType Service** (on page 341)

Style: Document/literal wrapped

Input:

Message: GetUDFFieldName  
 Element: ObjectId

Output:

Message: GetUDFFieldNameResponse  
 Element: UDFFieldName

**UDFType Fields**

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this user-defined field was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this user-defined field.
DataType	string restricted to 'Text' 'Start Date' 'Finish Date' 'Cost' 'Double' 'Integer' 'Indicator' 'Code'		X	The data type of the user-defined field: "Text", "Start Date", "Finish Date", "Cost", "Double", "Integer", "Indicator", or "Code".
DisplayIndicatorFlag	boolean		X	The flag indicating whether to show an indicator for the



				user-defined field. This field is valid for user-defined fields with a DataType of 'Indicator'.
Formula	string restricted to maxLength(4000)	X	X	The formula used to calculate a formula type user-defined field. This field is not valid for a manual type user-defined field.
IsCalculated	boolean	X	X	The flag indicating whether this is a calculated user-defined field type.
IsConditional	boolean	X	X	The flag indicating whether this is a indicator user-defined field type.
IsSecureCode	boolean		X	the flag indicating whether this is a secure code type.
LastUpdateDate	dateTime	X	X	The date this user-defined field was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this user-defined field.
ObjectId	int		X	The unique ID generated by the system.
SubjectArea	string restricted to 'Activity' 'Activity Expense' 'Activity Step'		X	The subject area of the user-defined field.

	'Project' 'Project Issue' 'Project Risk' 'Resource' 'Resource Assignment' 'WBS' 'Work Products and Documents' 'Activity Step Template Item' 'Lean Task' 'Roles'			
SummaryMethod	string restricted to maxLength(60)	X	X	Determines how a UDF is summarized in grouping bands.
Title	string restricted to maxLength(40)		X	The name/title of the user-defined field.

## UDFValue Service

### Operations:

**CreateUDFValues Operation** (on page 347)

**ReadUDFValues Operation** (on page 347)

**UpdateUDFValues Operation** (on page 348)

**DeleteUDFValues Operation** (on page 348)

**GetFieldLengthUDFValue Operation** (on page 349)

**ReadCalculatedUDFValues Operation** (on page 349)

### WSDL: UDFValue.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/UDFValue/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/UDFValueService?wsdl>

https://<hostname>:<port number>/p6ws/services/UDFValueService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.udfvalue.UDFValueService

**Description:**

A user defined field value represents the value of a particular user defined field when assigned to another business object. The ForeignObjectId field represents the ObjectId of the business object to which the UDF is assigned. Note that the type of the foreign business object must match the subject area of the associated UDFType.

Note that this business object has a multi-part object ID; its object ID is a combination of its UDF type object ID and its foreign object ID.

**CreateUDFValues Operation**

Description: Creates multiple UDFValue objects in the database. You can create up to 1000 UDFValue objects with a single call.

**Service:** *UDFValue Service (on page 346)*

Style: Document/literal wrapped

Input:

Message: CreateUDFValues

Elements: UDFValue elements that contain **UDFValue Fields** (on page 350) fields.

Required fields:

- ▶ UDFTypeObjectId
- ▶ ForeignObjectId

Output:

Message: CreateUDFValuesResponse

Output: A collection of zero to many ObjectId elements containing fields that comprise the primary key.

**ReadUDFValues Operation**

Description: Reads UDFValue objects from the database.

**Service:** *UDFValue Service (on page 346)*

Style: Document/literal wrapped

Input:

Message: ReadUDFValues

Elements: One to many field names from the **UDFValue Fields** (on page 350) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadUDFValuesResponse

Output: Zero to many UDFValue elements that contain **UDFValue Fields** (on page 350) fields.

### UpdateUDFValues Operation

Description: Updates multiple UDFValue objects in the database. You can update up to 1000 UDFValue objects with a single call.

**Service:** *UDFValue Service* (on page 346)

Style: Document/literal wrapped

Input:

Message: UpdateUDFValues

Elements: UDFValue elements that contain **UDFValue Fields** (on page 350) fields.

Required fields:

- ▶ UDFTypeObjectId
- ▶ ForeignObjectId

Output:

Message: UpdateUDFValuesResponse

Output: boolean

### DeleteUDFValues Operation

Description: Deletes multiple UDFValue objects in the database. You can delete up to 1000 UDFValue objects with a single call.

**Service:** *UDFValue Service* (on page 346)

Style: Document/literal wrapped

Input:

Message: DeleteUDFValues

Elements: One to many ObjectId elements

Output:

Message: DeleteUDFValuesResponse

Output: boolean

## GetFieldLengthUDFValue Operation

Description: Returns length of variable character fields for a BO.

**Service:** *UDFValue Service (on page 346)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthUDFValue

Elements: FieldLength

Output:

Message: GetFieldLengthUDFValueResponse

Elements: One to many FieldLengthUDFValues.

## ReadCalculatedUDFValues Operation

Description: Reads UDFValue objects from the database.

**Service:** *UDFValue Service (on page 346)*

Style: Document/literal wrapped

Input:

Message: ReadCalculatedUDFValues

Elements: One of the following elements:

Field	Type	Description
CalculatedUDFValueFieldType	A string restricted to the following values: <ul style="list-style-type: none"> <li>▶ ConditionalIndicator</li> <li>▶ Cost</li> <li>▶ Double</li> <li>▶ FinishDate</li> <li>▶ Integer</li> <li>▶ ProjectObjectId</li> <li>▶ StartDate</li> <li>▶ UDFTypeDataType</li> <li>▶ UDFTypeObjectId</li> </ul>	Specifies which CalculatedUDFValue field(s) to read.
UDFTypeObjectId	int	The unique ID of the associated UDF type.

ProjectObjectId	int	The unique ID of the associated project.
-----------------	-----	--

Required fields:

- ▶ UDFTypeObjectId
- ▶ ForeignObjectId

Output:

Message: ReadCalculatedUDFValuesResponse

Output: Zero to many UDFValue elements that contain UDFValue fields.

### UDFValue Fields

Field	Type	Read Only	Filterable Orderable	Description
CodeValue	string restricted to maxLength(60)	X	X	The short ID that uniquely identifies the associated UDF code within the UDF code type.
Conditional indicator	int	X		The conditional indicator of the user defined field, obtained by evaluating the conditional expression.
Cost	double		X	The value of the cost UDF.
CreateDate	dateTime	X	X	The date this UDF value was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this UDF value.
Description	string restricted to maxLength(255)	X	X	The description of the associated UDF code.

Double	double restricted to minInclusive(- 1.0E12) maxInclusive( 1.0E12)		X	The value of the double UDF.
FinishDate	dateTime		X	The value of the finish date UDF.
ForeignObjectId	int		X	The unique ID of the business object to which the UDF is assigned: ProjectObjectId, ActivityObjectId, ResourceObjectId, etc.
Indicator	string restricted to " 'None' 'Red' 'Yellow' 'Green' 'Blue'		X	The value of the indicator UDF.
Integer	int		X	The value of the integer UDF.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
IsUDFType Calculated	boolean	X	X	The flag indicating whether this is a value associated with a calculated user defined field type.

IsUDFType Conditional	boolean	X	X	The flag indicating whether this is a value associated with a user defined field type having a conditional expression.
LastUpdate Date	dateTime	X	X	The date this UDF value was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this UDF value.
ProjectObjectID	int	X	X	The unique ID of the associated project.
StartDate	dateTime		X	The value of the start date UDF.
Text	string restricted to maxLength(255)		X	The value of the text UDF.
UDFCodeObjectID	int		X	The unique ID of the associated UDF code.
UDFTypeData Type	string restricted to 'Text' 'Start Date' 'Finish Date' 'Cost' 'Double' 'Integer' 'Indicator' 'Code'	X	X	The data type of the associated user-defined field type: "Text", "Start Date", "Finish Date", "Cost", "Double", "Integer", "Indicator", or "Code".
UDFTypeObjectID	int		X	The unique ID of the associated UDF type.



UDFTypeSubjectArea	string restricted to 'Activity' 'Activity Expense' 'Activity Step' 'Project' 'Project Issue' 'Project Risk' 'Resource' 'Resource Assignment' 'WBS' 'Work Products and Documents' 'Activity Step Template Item' 'Lean Task' 'Roles'	X	X	The subject area of the associated user-defined field type.
UDFTypeTitle	string restricted to maxLength(40)	X	X	The name/title of the associated user-defined field type.

## EPS Services

### EPSBudgetChangeLog Service

#### Operations:

- CreateEPSBudgetChangeLogs Operation** (on page 354)
- ReadEPSBudgetChangeLogs Operation** (on page 354)
- UpdateEPSBudgetChangeLogs Operation** (on page 355)
- DeleteEPSBudgetChangeLogs Operation** (on page 355)
- GetFieldLengthEPSBudgetChangeLog Operation** (on page 356)

### WSDL: EPSCBudgetChangeLog.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/EPSCBudgetChangeLog/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/EPSCBudgetChangeLogService?wsdl>

<https://<hostname>:<port number>/p6ws/services/EPSCBudgetChangeLogService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.epsbudgetchangelog.EPSCBudgetChangeLogService`

### Description:

The EPS budget change log is used to track changes made from the original budget. You can set the status of the change as pending, approve or not approved, assign a responsible person, and specify the amount of the change. The EPS budget change log applies to EPS.

## CreateEPSCBudgetChangeLogs Operation

Description: Creates multiple EPSCBudgetChangeLog objects in the database. You can create up to 1000 EPSCBudgetChangeLog objects with a single call.

**Service:** *EPSCBudgetChangeLog Service* (on page 353)

Style: Document/literal wrapped

Input:

Message: CreateEPSCBudgetChangeLogs

Elements: EPSCBudgetChangeLog elements that contain **EPSCBudgetChangeLog Fields** (on page 356) fields

Required fields: The following fields are required when creating the EPSCBudgetChangeLog object:

- ▶ EPSObjectID
- ▶ ChangeNumber

Output:

Message: CreateEPSCBudgetChangeLogsResponse

Output: Zero to many ObjectID elements

## ReadEPSCBudgetChangeLogs Operation

Description: Reads EPSCBudgetChangeLog objects from the database.

**Service:** *EPSCBudgetChangeLog Service* (on page 353)

Style: Document/literal wrapped

Input:

Message: ReadEPSBudgetChangeLogs

Elements: One to many field names from the ***EPSBudgetChangeLog Fields*** (on page 356) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadEPSBudgetChangeLogsResponse

Output: Zero to many EPSBudgetChangeLog elements that contain ***EPSBudgetChangeLog Fields*** (on page 356) fields.

### UpdateEPSBudgetChangeLogs Operation

Description: Updates multiple EPSBudgetChangeLog objects in the database. You can update up to 1000 EPSBudgetChangeLog objects with a single call.

**Service:** *EPSBudgetChangeLog Service* (on page 353)

Style: Document/literal wrapped

Input:

Message: UpdateEPSBudgetChangeLogs

Elements: EPSBudgetChangeLog elements that contain ***EPSBudgetChangeLog Fields*** (on page 356) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateEPSBudgetChangeLogsResponse

Output: boolean

### DeleteEPSBudgetChangeLogs Operation

Description: Deletes multiple EPSBudgetChangeLog objects in the database. You can delete up to 1000 EPSBudgetChangeLog objects with a single call.

**Service:** *EPSBudgetChangeLog Service* (on page 353)

Style: Document/literal wrapped

Input:

Message: DeleteEPSBudgetChangeLogs

Elements: One to many ObjectID elements

Output:

Message: DeleteEPSBudgetChangeLogsResponse

Output: boolean

### GetFieldLengthEPSBudgetChangeLog Operation

Description: Returns length of variable character fields for a BO.

**Service:** *EPSBudgetChangeLog Service (on page 353)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthEPSBudgetChangeLog

Elements: FieldLength

Output:

Message: GetFieldLengthEPSBudgetChangeLogResponse

Elements: One to many FieldLengthEPSBudgetChangeLogs.

### EPSBudgetChangeLog Fields

Field	Type	Read Only	Filterable Orderable	Description
Amount	double restricted to minInclusive(- 1.0E14)		X	The amount of budget change.
ChangeNumber	string restricted to maxLength(32)		X	The change number that is automatically incremented according to when changes are added. This can be changed to any number.
CreateDate	dateTime	X	X	The date this epsbudgetchangelog was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this epsbudgetchangelog.
Date	dateTime		X	The date of this budget change entry.

EPSId	string restricted to maxLength(40)	X	X	The short code assigned to the associated EPS.
EPSName	string restricted to maxLength(100)	X	X	The name of the EPS element associated with this budget change log.
EPSObjectl d	int		X	The unique ID of the EPS element to which the budget change log applies.
LastUpdate Date	dateTime	X	X	The date this epsbudgetchangelog was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this epsbudgetchangelog.
ObjectId	int		X	The unique ID generated by the system.
Reason	string restricted to maxLength(130)		X	The description of the reason for the budget change request.
Responsible	string restricted to maxLength(255)		X	The person responsible for the change.
Status	string restricted to " 'Pending' 'Approved' 'Not Approved'		X	The status of this budget change request.

## EPSFunding Service

### Operations:

**CreateEPSFundings Operation** (on page 358)

**ReadEPSFundings Operation** (on page 359)

**UpdateEPSFundings Operation** (on page 359)

**DeleteEPSFundings Operation** (on page 359)

**GetFieldLengthEPSFunding Operation** (on page 360)

### WSDL: EPSFunding.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/EPSFunding/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/EPSFundingService?wsdl>

<https://<hostname>:<port number>/p6ws/services/EPSFundingService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.epsfunding.EPSFundingService`

### Description:

An EPS funding represents the assignment of a funding source to a particular EPS. The assigned funding source has an amount and fund share, or percentage.

## CreateEPSFundings Operation

Description: Creates multiple EPSFunding objects in the database. You can create up to 1000 EPSFunding objects with a single call.

**Service:** *EPSFunding Service* (on page 358)

Style: Document/literal wrapped

Input:

Message: CreateEPSFundings

Elements: EPSFunding elements that contain **EPSFunding Fields** (on page 360) fields

Required fields: The following fields are required when creating the EPSFunding object:

- ▶ FundingSourceObjectId
- ▶ EPSObjectId

Output:

Message: CreateEPSFundingsResponse

Output: Zero to many ObjectId elements

## ReadEPSFundings Operation

Description: Reads EPSFunding objects from the database.

**Service:** *EPSFunding Service (on page 358)*

Style: Document/literal wrapped

Input:

Message: ReadEPSFundings

Elements: One to many field names from the ***EPSFunding Fields*** (on page 360) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadEPSFundingsResponse

Output: Zero to many EPSFunding elements that contain ***EPSFunding Fields*** (on page 360) fields.

## UpdateEPSFundings Operation

Description: Updates multiple EPSFunding objects in the database. You can update up to 1000 EPSFunding objects with a single call.

**Service:** *EPSFunding Service (on page 358)*

Style: Document/literal wrapped

Input:

Message: UpdateEPSFundings

Elements: EPSFunding elements that contain ***EPSFunding Fields*** (on page 360) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateEPSFundingsResponse

Output: boolean

## DeleteEPSFundings Operation

Description: Deletes multiple EPSFunding objects in the database. You can delete up to 1000 EPSFunding objects with a single call.

**Service:** *EPSFunding Service (on page 358)*

Style: Document/literal wrapped

Input:

Message: DeleteEPSFundings  
 Elements: One to many ObjectId elements

Output:

Message: DeleteEPSFundingsResponse  
 Output: boolean

### GetFieldLengthEPSFunding Operation

Description: Returns length of variable character fields for a BO.

**Service:** *EPSFunding Service (on page 358)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthEPSFunding  
 Elements: FieldLength

Output:

Message: GetFieldLengthEPSFundingResponse  
 Elements: One to many FieldLengthEPSFundings.

### EPSFunding Fields

Field	Type	Read Only	Filterable Orderable	Description
Amount	double		X	The amount of a funding source that is allocated to the EPS.
CreateDate	dateTime	X	X	The date this epsfunding was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this epsfunding.
EPSId	string restricted to maxLength(40)	X	X	The short code assigned to the associated EPS.
EPSName	string restricted to	X	X	The name of the EPS element



	maxLength(100)			associated with this funding.
EPSObjectid	int		X	The unique ID of the associated EPS for this EPS funding.
FundShare	double		X	The percentage of the total fund that is allocated to the EPS.
FundingSourceObjectid	int		X	The unique ID of the associated funding source for this EPS funding.
LastUpdateDate	dateTime	X	X	The date this epsfunding was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this epsfunding.
Objectid	int		X	The unique ID generated by the system.

## EPSNote Service

### Operations:

- CreateEPSNotes Operation** (on page 362)
- ReadEPSNotes Operation** (on page 362)
- UpdateEPSNotes Operation** (on page 363)
- DeleteEPSNotes Operation** (on page 363)
- GetFieldLengthEPSNote Operation** (on page 363)

### WSDL: EPSNote.wsdl

Primary Key Field: Objectid

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/EPSNote/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/EPSNoteService?wsdl>

https://<hostname>:<port number>/p6ws/services/EPSService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.epsnote.EPSService

**Description:**

EPS notes are used as a way of specifying one or more notes on an EPS element. You may specify one note on each EPS for every notebook topic that exists.

### CreateEPSService Operation

Description: Creates multiple EPSService objects in the database. You can create up to 1000 EPSService objects with a single call.

**Service:** *EPSService* Service (on page 361)

Style: Document/literal wrapped

Input:

Message: CreateEPSService

Elements: EPSService elements that contain **EPSService Fields** (on page 364) fields

Required fields: The following fields are required when creating the EPSService object:

- ▶ EPSServiceId
- ▶ NotebookTopicId

Output:

Message: CreateEPSServiceResponse

Output: Zero to many EPSServiceId elements

### ReadEPSService Operation

Description: Reads EPSService objects from the database.

**Service:** *EPSService* Service (on page 361)

Style: Document/literal wrapped

Input:

Message: ReadEPSService

Elements: One to many field names from the **EPSService Fields** (on page 364) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadEPSServiceResponse

Output: Zero to many EPSNote elements that contain **EPSNote Fields** (on page 364) fields.

### UpdateEPSNotes Operation

Description: Updates multiple EPSNote objects in the database. You can update up to 1000 EPSNote objects with a single call.

**Service:** *EPSNote Service (on page 361)*

Style: Document/literal wrapped

Input:

Message: UpdateEPSNotes

Elements: EPSNote elements that contain **EPSNote Fields** (on page 364) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateEPSNotesResponse

Output: boolean

### DeleteEPSNotes Operation

Description: Deletes multiple EPSNote objects in the database. You can delete up to 1000 EPSNote objects with a single call.

**Service:** *EPSNote Service (on page 361)*

Style: Document/literal wrapped

Input:

Message: DeleteEPSNotes

Elements: One to many ObjectID elements

Output:

Message: DeleteEPSNotesResponse

Output: boolean

### GetFieldLengthEPSNote Operation

Description: Returns length of variable character fields for a BO.

**Service:** *EPSNote Service (on page 361)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthEPSNote

Elements: FieldLength

Output:

Message: GetFieldLengthEPSNoteResponse

Elements: One to many FieldLengthEPSNotes.

### EPSNote Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this EPS Note was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this EPS Note.
EPSId	string restricted to maxLength(40)	X	X	The short code assigned to the associated EPS.
EPSName	string restricted to maxLength(100)	X	X	The name of the EPS element associated with this note.
EPSObjectId	int		X	The unique ID of the associated EPS.
LastUpdateDate	dateTime	X	X	The date this EPS Note was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this EPS Note.
Note	string			The information that is associated with the notebook topic.
NotebookTopicName	string restricted to maxLength(40)	X	X	The name of the associated notebook topic.

	0)			
NotebookTopicObjectId	int		X	The unique ID of the associated notebook topic.
ObjectId	int		X	The unique ID generated by the system.
RawTextNote	string	X		The information that is associated with the notebook topic, without any HTML.

## EPSSpendingPlan Service

### Operations:

**CreateEPSSpendingPlans Operation** (on page 365)

**ReadEPSSpendingPlans Operation** (on page 366)

**UpdateEPSSpendingPlans Operation** (on page 366)

**DeleteEPSSpendingPlans Operation** (on page 367)

**GetFieldLengthEPSSpendingPlan Operation** (on page 367)

### WSDL: EPSSpendingPlan.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/EPSSpendingPlan/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/EPSSpendingPlanService?wsdl>

<https://<hostname>:<port number>/p6ws/services/EPSSpendingPlanService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.epsspendingplan.EPSSpendingPlanService`

### Description:

EPS spending plans represent monthly spending amounts for an EPS.

## CreateEPSSpendingPlans Operation

Description: Creates multiple EPSSpendingPlan objects in the database. You can create up to 1000 EPSSpendingPlan objects with a single call.

**Service:** *EPSSpendingPlan Service (on page 365)*

Style: Document/literal wrapped

Input:

Message: CreateEPSSpendingPlans

Elements: EPSSpendingPlan elements that contain ***EPSSpendingPlan Fields*** (on page 368) fields

Required fields: The following fields are required when creating the EPSSpendingPlan object:

- ▶ EPSObjectId
- ▶ Date

Output:

Message: CreateEPSSpendingPlansResponse

Output: Zero to many ObjectId elements

### ReadEPSSpendingPlans Operation

Description: Reads EPSSpendingPlan objects from the database.

**Service:** *EPSSpendingPlan Service (on page 365)*

Style: Document/literal wrapped

Input:

Message: ReadEPSSpendingPlans

Elements: One to many field names from the ***EPSSpendingPlan Fields*** (on page 368) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadEPSSpendingPlansResponse

Output: Zero to many EPSSpendingPlan elements that contain ***EPSSpendingPlan Fields*** (on page 368) fields.

### UpdateEPSSpendingPlans Operation

Description: Updates multiple EPSSpendingPlan objects in the database. You can update up to 1000 EPSSpendingPlan objects with a single call.

**Service:** *EPSSpendingPlan Service (on page 365)*

Style: Document/literal wrapped

Input:

Message: UpdateEPSSpendingPlans

Elements: EPSSpendingPlan elements that contain **EPSSpendingPlan Fields** (on page 368) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateEPSSpendingPlansResponse

Output: boolean

### DeleteEPSSpendingPlans Operation

Description: Deletes multiple EPSSpendingPlan objects in the database. You can delete up to 1000 EPSSpendingPlan objects with a single call.

**Service:** *EPSSpendingPlan Service* (on page 365)

Style: Document/literal wrapped

Input:

Message: DeleteEPSSpendingPlans

Elements: One to many ObjectID elements

Output:

Message: DeleteEPSSpendingPlansResponse

Output: boolean

### GetFieldLengthEPSSpendingPlan Operation

Description: Returns length of variable character fields for a BO.

**Service:** *EPSSpendingPlan Service* (on page 365)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthEPSSpendingPlan

Elements: FieldLength

Output:

Message: GetFieldLengthEPSSpendingPlanResponse

Elements: One to many FieldLengthEPSSpendingPlans.

### EPSSpendingPlan Fields

Field	Type	Read Only	Filterable Orderable	Description
BenefitPlan	double restricted to minInclusive(-9.999999999999E13) maxInclusive(9.999999999999E13)		X	The editable monthly profit portion for each month for the EPS.
CreateDate	dateTime	X	X	The date this EPS Spending plan was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this EPS Spending plan.
Date	dateTime		X	The start of a spending/benefit plan time period for the EPS.
EPSId	string restricted to maxLength(40)	X	X	The short code assigned to the associated EPS.
EPSName	string restricted to maxLength(100)	X	X	The name of the EPS element associated with this spending plan.
EPSObjectID	int		X	The unique ID of the associated EPS for this EPS spending plan.
LastUpdateDate	dateTime	X	X	The date this EPS Spending plan was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this EPS Spending plan.



ObjectId	int		X	The unique ID generated by the system.
SpendingPlan	double restricted to minInclusive(-9.999999999999E13) maxInclusive(9.999999999999E13)		X	The editable total monthly expenditure for the EPS.

## Export Service

### Operations:

***ExportProject Operation*** (on page 370)

***ExportProjects Operation*** (on page 371)

***DownloadFiles Operation*** (on page 374)

### WSDL: Export.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/WSExport/V2>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ExportService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ExportService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.export.ExportService`

### Description:

This service lets you export one or more projects to XML. The `ExportProject` operation exports one project to XML, and the `ExportProjects` operation exports one or more projects to XML. For each project, the export includes the project and all related business objects supported by the exporter and in use in the project. For example, the project's activities, resource assignments, and associated resources are included. The Export service uses MTOM (Message Transmission Optimization Mechanism) to send the output files as attachments.

The schema of the output file is contained in the `p6apibo.xsd` file located in P6 EPPM Web Services schema folder and is the same schema used by the Integration API's XMLExporter.

## ExportProject Operation

Description: Exports a project to an XML file.

**Service:** *Export Service (on page 369)*

Style: Document/literal wrapped

Input:

Message: ExportProject

Elements: ExportProject elements that contain the following elements:

Field	Type	Description
Encoding	string	Specifies the encoding of the XML file that is exported, e.g., UTF-8.
FileType	FileTypeType string restricted to GZIP XML ZIP	Specifies the file type that the system exports. If GZIP or ZIP is specified as the FileType, the exported XML file is compressed using the respective compression format.
LineSeparator	LineSeparator string restricted to Windows Unix	Specifies whether the Windows ("\r\n") or Unix ("\n") line endings will be used.
ProjectObjectId	int	The unique identifier project that is to be exported.
SpreadPeriodType	string restricted to Hour Day Week Month Quarter Year FinancialPeriod	Specifies the spread interval for the Activity. Specifying the SpreadPeriodType displays Future Bucket Planning data in the export file. It should only be specified if needed, as there are both performance and size implications of using this parameter.

Spacing	string	Specifies the indentation between the elements in the XML export file. For example, use " " to specify 5 spaces of indentation.
BusinessObjectOptions	▶ <b>BusinessObjectOptions Element</b> (on page 375)	Specifies which business objects to export according to the following rules:  If no BusinessObjectOptions are specified, then all of the business objects in the project are exported. If any BusinessObjectOptions are specified, then only those business objects specified by the BusinessObjectOptions element are exported.

Output:

Message: ExportProjectResponse

Elements:

The XML file containing the exported project data.

Field	Type	Description
ProjectData	base64Binary	The XML file containing the exported project data.

## ExportProjects Operation

Description: Exports one or more projects to an XML file. When you call the ExportProjects operation, you can specify one to many ProjectObjectID elements.

**Service:** *Export Service* (on page 369)

Style: Document/literal wrapped

Input:

Message: ExportProjects

Elements: ExportProject elements that contain the following elements:

Field	Type	Description
Encoding	string	Specifies the encoding of the XML file that is exported, e.g., UTF-8.
FileType	FileTypeType string restricted to GZIP XML ZIP	Specifies the file type that the system exports. If GZIP or ZIP is specified as the FileType, the exported XML file is compressed using the respective compression format.
LineSeparator	LineSeparator string restricted to Windows Unix	Specifies whether the Windows ("\r\n") or Unix ("\n") line endings will be used.
ProjectObjectID	int	The unique identifier project that is to be exported. This operation can contain one to many ProjectObjectID elements. List of int is used for returning Project Object Ids.
SpreadPeriodType	string restricted to Hour Day Week Month Quarter Year FinancialPeriod	Specifies the spread interval for the Activity. Specifying the SpreadPeriodType displays Future Bucket Planning data in the export file. It should only be specified if needed, as there are both performance and size implications of using this parameter.
Spacing	string	Specifies the indentation between the elements in the XML export file. For example, use " " to specify 5 spaces of indentation.
BusinessObjectOptions	<b>BusinessObjectOptions</b>	Specifies which business objects to

BusinessObjectOptions	<b>Element</b> (on page 375)	export according to the following rules: If no BusinessObjectOptions are specified, then all of the business objects in the project are exported. If any BusinessObjectOptions are specified, then only those business objects specified by the BusinessObjectOptions element are exported.
-----------------------	------------------------------	--

Output:

Message: ExportProjectsResponse

Elements:

The XML file containing the exported project data.

Field	Type	Description
ProjectData	base64Binary	The XML file containing the exported project data.

## ExportIpmdarProject Operation

Description: Exports a project in IPMDAR format to a zip file containing a collection of JSON files.

**Service:** *Export Service (on page 369)*

Style: Document/literal wrapped

Input:

Message: ExportIpmdarProject

Elements: ExportIpmdarProject elements that contain the following elements:

Field	Type	Description
TemplateId	string	The unique identifier for the IPMDAR Export template.
ProjectId	string	The unique identifier project that is to be exported.

Output:

Message: ExportIpmdarProjectResponse

Elements:

The zip file containing the exported project data.

Field	Type	Description
ProjectData	base64Binary	The zip file containing the exported project data.

## DownloadFiles Operation

Description: Downloads one or more files.

**Service:** *Export Service (on page 369)*

Style: Document/literal wrapped

Input:

Message: DownloadFiles

Elements: DownloadFiles elements that contain the following elements:

Field	Type	Description
JobType	string restricted to 'ASAP' 'Schedule'	Specifies the job type.
JobName	string	Specifies the job name.
StartDate	dateTime	The start date of the file download.
EndDate	dateTime	The end date of the file download.

Output:

Message: DownloadFilesResponse

Elements:

Field	Type	Description
NumberOfFiles	int	The number of files.

## BusinessObjectOptions Element

Each BusinessObjectOptions element contains an optional Include element that indicates whether the associated object is to be exported. The default value of the Include element is true. To exclude a business object from the XML export file, specify false in the Include element for that business object.

For example, to exclude the ActivityCode business object, specify the following:

```
<BusinessObjectOptions>
  <ActivityCode>
    <Include>>false</Include>
  </ActivityCode>
</BusinessObjectOptions>
```

Include zero to many BusinessObjectOptions elements in the input message of the ExportProject operation from the following list:

### Activity

- ▶ Include
- ▶ Field
  - ▶ AccountingVariance
  - ▶ AccountingVarianceLaborUnits
  - ▶ ActivityOwnerUserId
  - ▶ ActualDuration
  - ▶ ActualExpenseCost
  - ▶ ActualFinishDate
  - ▶ ActualLaborCost
  - ▶ ActualLaborUnits
  - ▶ ActualMaterialCost
  - ▶ ActualNonLaborCost
  - ▶ ActualNonLaborUnits
  - ▶ ActualStartDate
  - ▶ ActualThisPeriodLaborCost
  - ▶ ActualThisPeriodLaborUnits

- ▶ ActualThisPeriodMaterialCost
- ▶ ActualThisPeriodNonLaborCost
- ▶ ActualThisPeriodNonLaborUnits
- ▶ ActualTotalCost
- ▶ ActualTotalUnits
- ▶ AtCompletionDuration
- ▶ AtCompletionExpenseCost
- ▶ AtCompletionLaborCost
- ▶ AtCompletionLaborUnits
- ▶ AtCompletionLaborUnitsVariance
- ▶ AtCompletionMaterialCost
- ▶ AtCompletionNonLaborCost
- ▶ AtCompletionNonLaborUnits
- ▶ AtCompletionTotalCost
- ▶ AtCompletionTotalUnits
- ▶ AtCompletionVariance
- ▶ AutoComputeActuals
- ▶ Baseline1Duration
- ▶ Baseline1FinishDate
- ▶ Baseline1PlannedDuration
- ▶ Baseline1PlannedExpenseCost
- ▶ Baseline1PlannedLaborCost
- ▶ Baseline1PlannedLaborUnits
- ▶ Baseline1PlannedMaterialCost
- ▶ Baseline1PlannedNonLaborCost
- ▶ Baseline1PlannedNonLaborUnits
- ▶ Baseline1PlannedTotalCost
- ▶ Baseline1StartDate
- ▶ Baseline2Duration
- ▶ Baseline2FinishDate
- ▶ Baseline2PlannedDuration
- ▶ Baseline2PlannedExpenseCost
- ▶ Baseline2PlannedLaborCost
- ▶ Baseline2PlannedLaborUnits
- ▶ Baseline2PlannedMaterialCost
- ▶ Baseline2PlannedNonLaborCost
- ▶ Baseline2PlannedNonLaborUnits
- ▶ Baseline2PlannedTotalCost
- ▶ Baseline2StartDate



- 
- ▶ Baseline3Duration
  - ▶ Baseline3FinishDate
  - ▶ Baseline3PlannedDuration
  - ▶ Baseline3PlannedExpenseCost
  - ▶ Baseline3PlannedLaborCost
  - ▶ Baseline3PlannedLaborUnits
  - ▶ Baseline3PlannedMaterialCost
  - ▶ Baseline3PlannedNonLaborCost
  - ▶ Baseline3PlannedNonLaborUnits
  - ▶ Baseline3PlannedTotalCost
  - ▶ Baseline3StartDate
  - ▶ BaselineDuration
  - ▶ BaselineFinishDate
  - ▶ BaselinePlannedDuration
  - ▶ BaselinePlannedExpenseCost
  - ▶ BaselinePlannedLaborCost
  - ▶ BaselinePlannedLaborUnits
  - ▶ BaselinePlannedMaterialCost
  - ▶ BaselinePlannedNonLaborCost
  - ▶ BaselinePlannedNonLaborUnits
  - ▶ BaselinePlannedTotalCost
  - ▶ BaselineStartDate
  - ▶ BudgetAtCompletion
  - ▶ CBSCode
  - ▶ CBSId
  - ▶ CBSObjectId
  - ▶ CalendarName
  - ▶ CalendarObjectId
  - ▶ CostPercentComplete
  - ▶ CostPercentOfPlanned
  - ▶ CostPerformanceIndex
  - ▶ CostPerformanceIndexLaborUnits
  - ▶ CostVariance
  - ▶ CostVarianceIndex
  - ▶ CostVarianceIndexLaborUnits
  - ▶ CostVarianceLaborUnits
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ DataDate

- ▶ Duration1Variance
- ▶ Duration2Variance
- ▶ Duration3Variance
- ▶ DurationPercentComplete
- ▶ DurationPercentOfPlanned
- ▶ DurationType
- ▶ DurationVariance
- ▶ EarlyFinishDate
- ▶ EarlyStartDate
- ▶ EarnedValueCost
- ▶ EarnedValueLaborUnits
- ▶ EstimateAtCompletionCost
- ▶ EstimateAtCompletionLaborUnits
- ▶ EstimateToComplete
- ▶ EstimateToCompleteLaborUnits
- ▶ EstimatedWeight
- ▶ ExpectedFinishDate
- ▶ ExpenseCost1Variance
- ▶ ExpenseCost2Variance
- ▶ ExpenseCost3Variance
- ▶ ExpenseCostPercentComplete
- ▶ ExpenseCostVariance
- ▶ ExternalEarlyStartDate
- ▶ ExternalLateFinishDate
- ▶ Feedback
- ▶ FinancialPeriodTmplId
- ▶ FinishDate
- ▶ FinishDate1Variance
- ▶ FinishDate2Variance
- ▶ FinishDate3Variance
- ▶ FinishDateVariance
- ▶ FloatPath
- ▶ FloatPathOrder
- ▶ FreeFloat
- ▶ GUID
- ▶ HasFutureBucketData
- ▶ Id
- ▶ IsBaseline
- ▶ IsCritical

- 
- ▶ IsLongestPath
  - ▶ IsNewFeedback
  - ▶ IsStarred
  - ▶ IsTemplate
  - ▶ IsWorkPackage
  - ▶ LaborCost1Variance
  - ▶ LaborCost2Variance
  - ▶ LaborCost3Variance
  - ▶ LaborCostPercentComplete
  - ▶ LaborCostVariance
  - ▶ LaborUnits1Variance
  - ▶ LaborUnits2Variance
  - ▶ LaborUnits3Variance
  - ▶ LaborUnitsPercentComplete
  - ▶ LaborUnitsVariance
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ LateFinishDate
  - ▶ LateStartDate
  - ▶ LevelingPriority
  - ▶ LocationName
  - ▶ LocationObjectId
  - ▶ MaterialCost1Variance
  - ▶ MaterialCost2Variance
  - ▶ MaterialCost3Variance
  - ▶ MaterialCostPercentComplete
  - ▶ MaterialCostVariance
  - ▶ MaximumDuration
  - ▶ MinimumDuration
  - ▶ MostLikelyDuration
  - ▶ Name
  - ▶ NonLaborCost1Variance
  - ▶ NonLaborCost2Variance
  - ▶ NonLaborCost3Variance
  - ▶ NonLaborCostPercentComplete
  - ▶ NonLaborCostVariance
  - ▶ NonLaborUnits1Variance
  - ▶ NonLaborUnits2Variance
  - ▶ NonLaborUnits3Variance

- ▶ NonLaborUnitsPercentComplete
- ▶ NonLaborUnitsVariance
- ▶ NotesToResources
- ▶ ObjectId
- ▶ PercentComplete
- ▶ PercentCompleteType
- ▶ PerformancePercentComplete
- ▶ PerformancePercentCompleteByLaborUnits
- ▶ PhysicalPercentComplete
- ▶ PlannedDuration
- ▶ PlannedExpenseCost
- ▶ PlannedFinishDate
- ▶ PlannedLaborCost
- ▶ PlannedLaborUnits
- ▶ PlannedMaterialCost
- ▶ PlannedNonLaborCost
- ▶ PlannedNonLaborUnits
- ▶ PlannedStartDate
- ▶ PlannedTotalCost
- ▶ PlannedTotalUnits
- ▶ PlannedValueCost
- ▶ PlannedValueLaborUnits
- ▶ PostRespCriticalityIndex
- ▶ PostResponsePessimisticFinish
- ▶ PostResponsePessimisticStart
- ▶ PreRespCriticalityIndex
- ▶ PreResponsePessimisticFinish
- ▶ PreResponsePessimisticStart
- ▶ PrimaryConstraintDate
- ▶ PrimaryConstraintType
- ▶ PrimaryResourceId
- ▶ PrimaryResourceName
- ▶ PrimaryResourceObjectId
- ▶ ProjectFlag
- ▶ ProjectId
- ▶ ProjectName
- ▶ ProjectNameSepChar
- ▶ ProjectObjectId
- ▶ ProjectProjectFlag

- 
- ▶ RemainingDuration
  - ▶ RemainingEarlyFinishDate
  - ▶ RemainingEarlyStartDate
  - ▶ RemainingExpenseCost
  - ▶ RemainingFloat
  - ▶ RemainingLaborCost
  - ▶ RemainingLaborUnits
  - ▶ RemainingLateFinishDate
  - ▶ RemainingLateStartDate
  - ▶ RemainingMaterialCost
  - ▶ RemainingNonLaborCost
  - ▶ RemainingNonLaborUnits
  - ▶ RemainingTotalCost
  - ▶ RemainingTotalUnits
  - ▶ ResumeDate
  - ▶ ReviewFinishDate
  - ▶ ReviewRequired
  - ▶ ReviewStatus
  - ▶ SchedulePercentComplete
  - ▶ SchedulePerformanceIndex
  - ▶ SchedulePerformanceIndexLaborUnits
  - ▶ ScheduleVariance
  - ▶ ScheduleVarianceIndex
  - ▶ ScheduleVarianceIndexLaborUnits
  - ▶ ScheduleVarianceLaborUnits
  - ▶ ScopePercentComplete
  - ▶ SecondaryConstraintDate
  - ▶ SecondaryConstraintType
  - ▶ StartDate
  - ▶ StartDate1Variance
  - ▶ StartDate2Variance
  - ▶ StartDate3Variance
  - ▶ StartDateVariance
  - ▶ Status
  - ▶ StatusCode
  - ▶ SuspendDate
  - ▶ TaskStatusCompletion
  - ▶ TaskStatusDates
  - ▶ TaskStatusIndicator

- ▶ ToCompletePerformanceIndex
- ▶ TotalCost1Variance
- ▶ TotalCost2Variance
- ▶ TotalCost3Variance
- ▶ TotalCostVariance
- ▶ TotalFloat
- ▶ TotalPastPeriodEarnedValueCostBCWP
- ▶ TotalPastPeriodEarnedValueLaborUnits
- ▶ TotalPastPeriodExpenseCost
- ▶ TotalPastPeriodLaborCost
- ▶ TotalPastPeriodLaborUnits
- ▶ TotalPastPeriodMaterialCost
- ▶ TotalPastPeriodNonLaborCost
- ▶ TotalPastPeriodNonLaborUnits
- ▶ TotalPastPeriodPlannedValueCost
- ▶ TotalPastPeriodPlannedValueLaborUnits
- ▶ Type
- ▶ UnitsPercentComplete
- ▶ UnreadCommentCount
- ▶ WBSCode
- ▶ WBSName
- ▶ WBSObjectId
- ▶ WBSPath
- ▶ WBSNamePath
- ▶ WorkPackageId
- ▶ WorkPackageName

### **ActivityCode**

- ▶ Include
- ▶ Field
  - ▶ CodeConcatName
  - ▶ CodeTypeName
  - ▶ CodeTypeObjectId
  - ▶ CodeTypeScope
  - ▶ CodeValue
  - ▶ Color
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Description
  - ▶ LastUpdateDate

- ▶ LastUpdateUser
- ▶ ObjectId
- ▶ ParentObjectId
- ▶ ProjectObjectId
- ▶ RefProjectObjectIds
- ▶ SequenceNumber

### **ActivityCodeAssignment**

- ▶ Include

### **ActivityCodeType**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ EPSCodeTypeHierarchy
  - ▶ EPSObjectId
  - ▶ IsBaseline
  - ▶ IsSecureCode
  - ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Length
  - ▶ Name
  - ▶ ObjectId
  - ▶ ProjectObjectId
  - ▶ RefProjectObjectId
  - ▶ Scope
  - ▶ SequenceNumber

### **ActivityExpense**

- ▶ Include
- ▶ Field
  - ▶ AccrualType
  - ▶ ActivityId
  - ▶ ActivityName
  - ▶ ActivityObjectId
  - ▶ ActualCost
  - ▶ ActualUnits
  - ▶ AtCompletionCost
  - ▶ AtCompletionUnits

- ▶ AutoComputeActuals
- ▶ CBSCode
- ▶ CBSId
- ▶ CostAccountId
- ▶ CostAccountName
- ▶ CostAccountObjectId
- ▶ CreateDate
- ▶ CreateUser
- ▶ DocumentNumber
- ▶ ExpenseCategoryName
- ▶ ExpenseCategoryId
- ▶ ExpenseDescription
- ▶ ExpenseItem
- ▶ ExpensePercentComplete
- ▶ IsBaseline
- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ ObjectId
- ▶ OverBudget
- ▶ PlannedCost
- ▶ PlannedUnits
- ▶ PricePerUnit
- ▶ ProjectId
- ▶ ProjectObjectId
- ▶ RemainingCost
- ▶ RemainingUnits
- ▶ UnitOfMeasure
- ▶ Vendor
- ▶ WBSObjectId

**ActivityNote**

- ▶ Include
- ▶ Field
  - ▶ ActivityId
  - ▶ ActivityName
  - ▶ ActivityObjectId
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ IsBaseline



- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ Note
- ▶ NotebookTopicName
- ▶ NotebookTopicObjectId
- ▶ ObjectId
- ▶ ProjectId
- ▶ ProjectObjectId
- ▶ RawTextNote
- ▶ WBSObjectId

### **ActivityPeriodActual**

- ▶ Include
- ▶ Field
  - ▶ ActivityObjectId
  - ▶ ActualExpenseCost
  - ▶ ActualLaborCost
  - ▶ ActualLaborUnits
  - ▶ ActualMaterialCost
  - ▶ ActualNonLaborCost
  - ▶ ActualNonLaborUnits
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ EarnedValueCost
  - ▶ EarnedValueLaborUnits
  - ▶ FinancialPeriodObjectId
  - ▶ FinancialPeriodTemplateId
  - ▶ IsBaseline
  - ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ PlannedValueCost
  - ▶ PlannedValueLaborUnits
  - ▶ ProjectObjectId
  - ▶ WBSObjectId

### **ActivityRisk**

- ▶ Include
- ▶ Field

- ▶ ActivityId
- ▶ ActivityName
- ▶ ActivityObjectId
- ▶ CreateDate
- ▶ CreateUser
- ▶ IsBaseline
- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ ProjectId
- ▶ ProjectName
- ▶ ProjectObjectId
- ▶ RiskId
- ▶ RiskName
- ▶ RiskObjectId

#### **ActivityStep**

- ▶ Include
- ▶ Field
  - ▶ ActivityId
  - ▶ ActivityName
  - ▶ ActivityObjectId
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Description
  - ▶ IsBaseline
  - ▶ IsCompleted
  - ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ PercentComplete
  - ▶ ProjectId
  - ▶ ProjectObjectId
  - ▶ SequenceNumber
  - ▶ WBSObjectId
  - ▶ Weight
  - ▶ WeightPercent

**Calendar**

- ▶ Include
- ▶ Field
  - ▶ BaseCalendarObjectId
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ HoursPerDay
  - ▶ HoursPerMonth
  - ▶ HoursPerWeek
  - ▶ HoursPerYear
  - ▶ IsBaseline
  - ▶ IsDefault
  - ▶ IsPersonal
  - ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ ProjectId
  - ▶ ProjectObjectId
  - ▶ Type

**CostAccount**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Description
  - ▶ Id
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ ParentObjectId
  - ▶ SequenceNumber

**Currency**

- ▶ Include
- ▶ Field
  - ▶ CreateDate

- ▶ CreateUser
- ▶ DecimalPlaces
- ▶ DecimalSymbol
- ▶ DigitGroupingSymbol
- ▶ ExchangeRate
- ▶ Id
- ▶ IsBaseCurrency
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ Name
- ▶ NegativeSymbol
- ▶ ObjectId
- ▶ PositiveSymbol
- ▶ Symbol

#### **Document**

- ▶ Include
- ▶ Field
  - ▶ ActivityObjectId
  - ▶ Author
  - ▶ ContentRepositoryDocumentInternalId
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Deliverable
  - ▶ Description
  - ▶ DocumentCategoryName
  - ▶ DocumentCategoryObjectId
  - ▶ DocumentStatusCodeName
  - ▶ DocumentStatusName
  - ▶ DocumentStatusCodeObjectId
  - ▶ DocumentType
  - ▶ GUID
  - ▶ IsBaseline
  - ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ObjectId
  - ▶ ParentObjectId
  - ▶ PrivateLocation
  - ▶ ProjectId

- ▶ ProjectObjectId
- ▶ PublicLocation
- ▶ ReferenceNumber
- ▶ ResourceId
- ▶ ResourceName
- ▶ ResourceObjectId
- ▶ RevisionDate
- ▶ SequenceNumber
- ▶ Title
- ▶ Version

### **DocumentCategory**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ SequenceNumber

### **DocumentStatusCode**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ SequenceNumber

### **EPS**

- ▶ Include
- ▶ Field
  - ▶ AnticipatedFinishDate
  - ▶ AnticipatedStartDate
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ CurrentBudget

- ▶ CurrentVariance
- ▶ DistributedCurrentBudget
- ▶ FinishDate
- ▶ GUID
- ▶ Id
- ▶ IndependentETCLaborUnits
- ▶ IndependentETCTotalCost
- ▶ LastSummarizedDate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ Name
- ▶ OBSName
- ▶ OBSObjectld
- ▶ Objectld
- ▶ OriginalBudget
- ▶ ParentEPSId
- ▶ ParentEPSName
- ▶ ParentObjectld
- ▶ PlannedStartDate
- ▶ ProjectObjectld
- ▶ ProposedBudget
- ▶ SequenceNumber
- ▶ StartDate
- ▶ SummaryAccountingVarianceByCost
- ▶ SummaryAccountingVarianceByLaborUnits
- ▶ SummaryActivityCount
- ▶ SummaryActualDuration
- ▶ SummaryActualExpenseCost
- ▶ SummaryActualFinishDate
- ▶ SummaryActualLaborCost
- ▶ SummaryActualLaborUnits
- ▶ SummaryActualMaterialCost
- ▶ SummaryActualNonLaborCost
- ▶ SummaryActualNonLaborUnits
- ▶ SummaryActualStartDate
- ▶ SummaryActualThisPeriodCost
- ▶ SummaryActualThisPeriodLaborCost
- ▶ SummaryActualThisPeriodLaborUnits
- ▶ SummaryActualThisPeriodMaterialCost

- 
- ▶ SummaryActualThisPeriodNonLaborCost
  - ▶ SummaryActualThisPeriodNonLaborUnits
  - ▶ SummaryActualTotalCost
  - ▶ SummaryActualValueByCost
  - ▶ SummaryActualValueByLaborUnits
  - ▶ SummaryAtCompletionDuration
  - ▶ SummaryAtCompletionExpenseCost
  - ▶ SummaryAtCompletionLaborCost
  - ▶ SummaryAtCompletionLaborUnits
  - ▶ SummaryAtCompletionMaterialCost
  - ▶ SummaryAtCompletionNonLaborCost
  - ▶ SummaryAtCompletionNonLaborUnits
  - ▶ SummaryAtCompletionTotalCost
  - ▶ SummaryAtCompletionTotalCostVariance
  - ▶ SummaryBaselineCompletedActivityCount
  - ▶ SummaryBaselineDuration
  - ▶ SummaryBaselineExpenseCost
  - ▶ SummaryBaselineFinishDate
  - ▶ SummaryBaselineInProgressActivityCount
  - ▶ SummaryBaselineLaborCost
  - ▶ SummaryBaselineLaborUnits
  - ▶ SummaryBaselineMaterialCost
  - ▶ SummaryBaselineNonLaborCost
  - ▶ SummaryBaselineNonLaborUnits
  - ▶ SummaryBaselineNotStartedActivityCount
  - ▶ SummaryBaselineStartDate
  - ▶ SummaryBaselineTotalCost
  - ▶ SummaryBudgetAtCompletionByCost
  - ▶ SummaryBudgetAtCompletionByLaborUnits
  - ▶ SummaryCompletedActivityCount
  - ▶ SummaryCostPercentComplete
  - ▶ SummaryCostPercentOfPlanned
  - ▶ SummaryCostPerformanceIndexByCost
  - ▶ SummaryCostPerformanceIndexByLaborUnits
  - ▶ SummaryCostVarianceByCost
  - ▶ SummaryCostVarianceByLaborUnits
  - ▶ SummaryCostVarianceIndex
  - ▶ SummaryCostVarianceIndexByCost
  - ▶ SummaryCostVarianceIndexByLaborUnits

- ▶ SummaryDurationPercentComplete
- ▶ SummaryDurationPercentOfPlanned
- ▶ SummaryDurationVariance
- ▶ SummaryEarnedValueByCost
- ▶ SummaryEarnedValueByLaborUnits
- ▶ SummaryEstimateAtCompletionByCost
- ▶ SummaryEstimateAtCompletionByLaborUnits
- ▶ SummaryEstimateAtCompletionHighPercentByLaborUnits
- ▶ SummaryEstimateAtCompletionLowPercentByLaborUnits
- ▶ SummaryEstimateToCompleteByCost
- ▶ SummaryEstimateToCompleteByLaborUnits
- ▶ SummaryExpenseCostPercentComplete
- ▶ SummaryExpenseCostVariance
- ▶ SummaryFinishDateVariance
- ▶ SummaryInProgressActivityCount
- ▶ SummaryLaborCostPercentComplete
- ▶ SummaryLaborCostVariance
- ▶ SummaryLaborUnitsPercentComplete
- ▶ SummaryLaborUnitsVariance
- ▶ SummaryMaterialCostPercentComplete
- ▶ SummaryMaterialCostVariance
- ▶ SummaryNonLaborCostPercentComplete
- ▶ SummaryNonLaborCostVariance
- ▶ SummaryNonLaborUnitsPercentComplete
- ▶ SummaryNonLaborUnitsVariance
- ▶ SummaryNotStartedActivityCount
- ▶ SummaryPerformancePercentCompleteByCost
- ▶ SummaryPerformancePercentCompleteByLaborUnits
- ▶ SummaryPlannedCost
- ▶ SummaryPlannedDuration
- ▶ SummaryPlannedExpenseCost
- ▶ SummaryPlannedFinishDate
- ▶ SummaryPlannedLaborCost
- ▶ SummaryPlannedLaborUnits
- ▶ SummaryPlannedMaterialCost
- ▶ SummaryPlannedNonLaborCost
- ▶ SummaryPlannedNonLaborUnits
- ▶ SummaryPlannedStartDate
- ▶ SummaryPlannedValueByCost



- 
- ▶ SummaryPlannedValueByLaborUnits
  - ▶ SummaryProgressFinishDate
  - ▶ SummaryRemainingDuration
  - ▶ SummaryRemainingExpenseCost
  - ▶ SummaryRemainingFinishDate
  - ▶ SummaryRemainingLaborCost
  - ▶ SummaryRemainingLaborUnits
  - ▶ SummaryRemainingMaterialCost
  - ▶ SummaryRemainingNonLaborCost
  - ▶ SummaryRemainingNonLaborUnits
  - ▶ SummaryRemainingStartDate
  - ▶ SummaryRemainingTotalCost
  - ▶ SummarySchedulePercentComplete
  - ▶ SummarySchedulePercentCompleteByLaborUnits
  - ▶ SummarySchedulePerformanceIndexByCost
  - ▶ SummarySchedulePerformanceIndexByLaborUnits
  - ▶ SummaryScheduleVarianceByCost
  - ▶ SummaryScheduleVarianceByLaborUnits
  - ▶ SummaryScheduleVarianceIndex
  - ▶ SummaryScheduleVarianceIndexByCost
  - ▶ SummaryScheduleVarianceIndexByLaborUnits
  - ▶ SummaryStartDateVariance
  - ▶ SummaryToCompletePerformanceIndexByCost
  - ▶ SummaryTotalCostVariance
  - ▶ SummaryTotalFloat
  - ▶ SummaryUnitsPercentComplete
  - ▶ SummaryVarianceAtCompletionByLaborUnits
  - ▶ TotalBenefitPlan
  - ▶ TotalBenefitPlanTally
  - ▶ TotalFunding
  - ▶ TotalSpendingPlan
  - ▶ TotalSpendingPlanTally
  - ▶ UnallocatedBudget
  - ▶ UndistributedCurrentVariance

### **ExpenseCategory**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser

- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ Name
- ▶ ObjectId
- ▶ SequenceNumber

### **FinancialPeriod**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ EndDate
  - ▶ FinancialPeriodTplId
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ StartDate

### **FundingSource**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Description
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ ParentObjectId
  - ▶ SequenceNumber

### **NotebookTopic**

- ▶ Include
- ▶ Field
  - ▶ AvailableForActivity
  - ▶ AvailableForEPS
  - ▶ AvailableForProject
  - ▶ AvailableForWBS
  - ▶ CreateDate
  - ▶ CreateUser

- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ Name
- ▶ ObjectId
- ▶ SequenceNumber

## **OBS**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Description
  - ▶ GUID
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ ParentObjectId
  - ▶ SequenceNumber

## **Project**

- ▶ Include
- ▶ Field
  - ▶ ActivityDefaultActivityType
  - ▶ ActivityDefaultCalendarName
  - ▶ ActivityDefaultCalendarObjectId
  - ▶ ActivityDefaultCostAccountObjectId
  - ▶ ActivityDefaultDurationType
  - ▶ ActivityDefaultPercentCompleteType
  - ▶ ActivityDefaultPricePerUnit
  - ▶ ActivityDefaultReviewRequired
  - ▶ ActivityIdBasedOnSelectedActivity
  - ▶ ActivityIdIncrement
  - ▶ ActivityIdPrefix
  - ▶ ActivityIdSuffix
  - ▶ ActivityPercentCompleteBasedOnActivitySteps
  - ▶ AddActualToRemaining
  - ▶ AddedBy
  - ▶ AllowNegativeActualUnitsFlag
  - ▶ AllowStatusReview

- ▶ AnnualDiscountRate
- ▶ AnticipatedFinishDate
- ▶ AnticipatedStartDate
- ▶ AssignmentDefaultDrivingFlag
- ▶ AssignmentDefaultRateType
- ▶ CalculateFloatBasedOnFinishDate
- ▶ CheckOutDate
- ▶ CheckOutStatus
- ▶ CheckOutUserObjectId
- ▶ ComputeTotalFloatType
- ▶ ContainsSummaryData
- ▶ ContractManagementGroupName
- ▶ ContractManagementProjectName
- ▶ CostQuantityRecalculateFlag
- ▶ CreateDate
- ▶ CreateUser
- ▶ CriticalActivityFloatLimit
- ▶ CriticalActivityFloatThreshold
- ▶ CriticalActivityPathType
- ▶ CriticalFloatThreshold
- ▶ CurrentBaselineProjectObjectId
- ▶ CurrentBudget
- ▶ CurrentVariance
- ▶ DataDate
- ▶ DateAdded
- ▶ DefaultPriceTimeUnits
- ▶ Description
- ▶ DiscountApplicationPeriod
- ▶ DistributedCurrentBudget
- ▶ EarnedValueComputeType
- ▶ EarnedValueETCComputeType
- ▶ EarnedValueETCUserValue
- ▶ EarnedValueUserPercent
- ▶ EnablePublication
- ▶ EnableSummarization
- ▶ EtIInterval
- ▶ ExternalCRKey
- ▶ FinancialPeriodTmplId
- ▶ FinishDate

- 
- ▶ FiscalYearStartMonth
  - ▶ ForecastFinishDate
  - ▶ ForecastStartDate
  - ▶ GUID
  - ▶ HasFutureBucketData
  - ▶ HistoryInterval
  - ▶ HistoryLevel
  - ▶ Id
  - ▶ IgnoreOtherProjectRelationships
  - ▶ IndependentETCLaborUnits
  - ▶ IndependentETCTotalCost
  - ▶ IntegratedType
  - ▶ IntegratedWBS
  - ▶ IsTemplate
  - ▶ LastApplyActualsDate
  - ▶ LastFinancialPeriodObjectId
  - ▶ LastLevelDate
  - ▶ LastPublishedOn
  - ▶ LastScheduleDate
  - ▶ LastSummarizedDate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Latitude
  - ▶ LevelAllResources
  - ▶ LevelDateFlag
  - ▶ LevelFloatThresholdCount
  - ▶ LevelOuterAssign
  - ▶ LevelOuterAssignPriority
  - ▶ LevelOverAllocationPercent
  - ▶ LevelPriorityList
  - ▶ LevelResourceList
  - ▶ LevelWithinFloat
  - ▶ LevelingPriority
  - ▶ LimitMultipleFloatPaths
  - ▶ LinkActualToActualThisPeriod
  - ▶ LinkPercentCompleteWithActual
  - ▶ LinkPlannedAndAtCompletionFlag
  - ▶ LocationName
  - ▶ LocationObjectId

- ▶ Longitude
- ▶ MakeOpenEndedActivitiesCritical
- ▶ MaximumMultipleFloatPaths
- ▶ MultipleFloatPathsEnabled
- ▶ MultipleFloatPathsEndingActivityObjectId
- ▶ MultipleFloatPathsUseTotalFloat
- ▶ MustFinishByDate
- ▶ Name
- ▶ NetPresentValue
- ▶ OBSName
- ▶ OBSObjectId
- ▶ ObjectId
- ▶ OriginalBudget
- ▶ OutOfSequenceScheduleType
- ▶ OverallProjectScore
- ▶ OwnerResourceObjectId
- ▶ ParentEPSId
- ▶ ParentEPSName
- ▶ PaybackPeriod
- ▶ PerformancePercentCompleteByLaborUnits
- ▶ ParentEPSObjectId
- ▶ PlannedStartDate
- ▶ PostResponsePessimisticFinish
- ▶ PostResponsePessimisticStart
- ▶ PreResponsePessimisticFinish
- ▶ PreResponsePessimisticStart
- ▶ PricePerUnit
- ▶ PrimaryResourcesCanMarkActivitiesAsCompleted
- ▶ PrimaryResourcesCanUpdateActivityDates
- ▶ ProjectForecastStartDate
- ▶ ProjectScheduleType
- ▶ PropertyType
- ▶ ProposedBudget
- ▶ PublicationPriority
- ▶ PublishLevel
- ▶ RelationshipLagCalendar
- ▶ RelationshipLagCalendar
- ▶ ResetPlannedToRemainingFlag
- ▶ ResourceCanBeAssignedToSameActivityMoreThanOnce

- 
- ▶ ResourceName
  - ▶ ResourcesCanAssignThemselvesToActivities
  - ▶ ResourcesCanAssignThemselvesToActivitiesOutsideOBSAccess
  - ▶ ResourcesCanEditAssignmentPercentComplete
  - ▶ ResourcesCanMarkAssignmentAsCompleted
  - ▶ ResourcesCanStaffRoleAssignment
  - ▶ ResourcesCanViewInactiveActivities
  - ▶ ReturnOnInvestment
  - ▶ ReviewRequired
  - ▶ ReviewType
  - ▶ RiskExposure
  - ▶ RiskLevel
  - ▶ RiskMatrixName
  - ▶ RiskMatrixObjectId
  - ▶ RiskScore
  - ▶ ScheduleWBSHierarchyType
  - ▶ ScheduledFinishDate
  - ▶ SourceProjectObjectId
  - ▶ StartDate
  - ▶ StartToStartLagCalculationType
  - ▶ Status
  - ▶ StatusReviewerName
  - ▶ StatusReviewerObjectId
  - ▶ StrategicPriority
  - ▶ SummarizeResourcesRolesByWBS
  - ▶ SummarizeToWBSLevel
  - ▶ SummarizedDataDate
  - ▶ SummaryAccountingVarianceByCost
  - ▶ SummaryAccountingVarianceByLaborUnits
  - ▶ SummaryActivityCount
  - ▶ SummaryActualDuration
  - ▶ SummaryActualExpenseCost
  - ▶ SummaryActualFinishDate
  - ▶ SummaryActualLaborCost
  - ▶ SummaryActualLaborUnits
  - ▶ SummaryActualMaterialCost
  - ▶ SummaryActualNonLaborCost
  - ▶ SummaryActualNonLaborUnits
  - ▶ SummaryActualStartDate

- ▶ SummaryActualThisPeriodCost
- ▶ SummaryActualThisPeriodLaborCost
- ▶ SummaryActualThisPeriodLaborUnits
- ▶ SummaryActualThisPeriodMaterialCost
- ▶ SummaryActualThisPeriodNonLaborCost
- ▶ SummaryActualThisPeriodNonLaborUnits
- ▶ SummaryActualTotalCost
- ▶ SummaryActualValueByCost
- ▶ SummaryActualValueByLaborUnits
- ▶ SummaryAtCompletionDuration
- ▶ SummaryAtCompletionExpenseCost
- ▶ SummaryAtCompletionLaborCost
- ▶ SummaryAtCompletionLaborUnits
- ▶ SummaryAtCompletionMaterialCost
- ▶ SummaryAtCompletionNonLaborCost
- ▶ SummaryAtCompletionNonLaborUnits
- ▶ SummaryAtCompletionTotalCost
- ▶ SummaryAtCompletionTotalCostVariance
- ▶ SummaryBaselineCompletedActivityCount
- ▶ SummaryBaselineDuration
- ▶ SummaryBaselineExpenseCost
- ▶ SummaryBaselineFinishDate
- ▶ SummaryBaselineInProgressActivityCount
- ▶ SummaryBaselineLaborCost
- ▶ SummaryBaselineLaborUnits
- ▶ SummaryBaselineMaterialCost
- ▶ SummaryBaselineNonLaborCost
- ▶ SummaryBaselineNonLaborUnits
- ▶ SummaryBaselineNotStartedActivityCount
- ▶ SummaryBaselineStartDate
- ▶ SummaryBaselineTotalCost
- ▶ SummaryBudgetAtCompletionByCost
- ▶ SummaryBudgetAtCompletionByLaborUnits
- ▶ SummaryCompletedActivityCount
- ▶ SummaryCostPercentComplete
- ▶ SummaryCostPercentOfPlanned
- ▶ SummaryCostPerformanceIndexByCost
- ▶ SummaryCostPerformanceIndexByLaborUnits
- ▶ SummaryCostVarianceByCost



- 
- ▶ SummaryCostVarianceByLaborUnits
  - ▶ SummaryCostVarianceIndex
  - ▶ SummaryCostVarianceIndexByCost
  - ▶ SummaryCostVarianceIndexByLaborUnits
  - ▶ SummaryDurationPercentComplete
  - ▶ SummaryDurationPercentOfPlanned
  - ▶ SummaryDurationVariance
  - ▶ SummaryEarnedValueByCost
  - ▶ SummaryEarnedValueByLaborUnits
  - ▶ SummaryEstimateAtCompletionByCost
  - ▶ SummaryEstimateAtCompletionByLaborUnits
  - ▶ SummaryEstimateAtCompletionHighPercentByLaborUnits
  - ▶ SummaryEstimateAtCompletionLowPercentByLaborUnits
  - ▶ SummaryEstimateToCompleteByCost
  - ▶ SummaryEstimateToCompleteByLaborUnits
  - ▶ SummaryExpenseCostPercentComplete
  - ▶ SummaryExpenseCostVariance
  - ▶ SummaryFinishDateVariance
  - ▶ SummaryInProgressActivityCount
  - ▶ SummaryLaborCostPercentComplete
  - ▶ SummaryLaborCostVariance
  - ▶ SummaryLaborUnitsPercentComplete
  - ▶ SummaryLaborUnitsVariance
  - ▶ SummaryLevel
  - ▶ SummaryMaterialCostPercentComplete
  - ▶ SummaryMaterialCostVariance
  - ▶ SummaryNonLaborCostPercentComplete
  - ▶ SummaryNonLaborCostVariance
  - ▶ SummaryNonLaborUnitsPercentComplete
  - ▶ SummaryNonLaborUnitsVariance
  - ▶ SummaryNotStartedActivityCount
  - ▶ SummaryPerformancePercentCompleteByCost
  - ▶ SummaryPerformancePercentCompleteByLaborUnits
  - ▶ SummaryPlannedCost
  - ▶ SummaryPlannedDuration
  - ▶ SummaryPlannedExpenseCost
  - ▶ SummaryPlannedFinishDate
  - ▶ SummaryPlannedLaborCost
  - ▶ SummaryPlannedLaborUnits

- ▶ SummaryPlannedMaterialCost
- ▶ SummaryPlannedNonLaborCost
- ▶ SummaryPlannedNonLaborUnits
- ▶ SummaryPlannedStartDate
- ▶ SummaryPlannedValueByCost
- ▶ SummaryPlannedValueByLaborUnits
- ▶ SummaryProgressFinishDate
- ▶ SummaryRemainingDuration
- ▶ SummaryRemainingExpenseCost
- ▶ SummaryRemainingFinishDate
- ▶ SummaryRemainingLaborCost
- ▶ SummaryRemainingLaborUnits
- ▶ SummaryRemainingMaterialCost
- ▶ SummaryRemainingNonLaborCost
- ▶ SummaryRemainingNonLaborUnits
- ▶ SummaryRemainingStartDate
- ▶ SummaryRemainingTotalCost
- ▶ SummarySchedulePercentComplete
- ▶ SummarySchedulePercentCompleteByLaborUnits
- ▶ SummarySchedulePerformanceIndexByCost
- ▶ SummarySchedulePerformanceIndexByLaborUnits
- ▶ SummaryScheduleVarianceByCost
- ▶ SummaryScheduleVarianceByLaborUnits
- ▶ SummaryScheduleVarianceIndex
- ▶ SummaryScheduleVarianceIndexByCost
- ▶ SummaryScheduleVarianceIndexByLaborUnits
- ▶ SummaryStartDateVariance
- ▶ SummaryToCompletePerformanceIndexByCost
- ▶ SummaryTotalCostVariance
- ▶ SummaryTotalFloat
- ▶ SummaryUnitsPercentComplete
- ▶ SummaryVarianceAtCompletionByLaborUnits
- ▶ SyncWbsHierarchyFlag
- ▶ TeamMemberActivityFields
- ▶ TeamMemberAddNewActualUnits
- ▶ TeamMemberAssignmentOption
- ▶ TeamMemberAssignmentProficiencyFlag
- ▶ TeamMemberCanStatusOtherResources
- ▶ TeamMemberCanUpdateNotebooks

- 
- ▶ TeamMemberDisplayBaselineDatesFlag
  - ▶ TeamMemberDisplayPlannedUnits
  - ▶ TeamMemberDisplayTotalFloatFlag
  - ▶ TeamMemberIncludePrimaryResources
  - ▶ TeamMemberReadOnlyActivityFields
  - ▶ TeamMemberCanStatusOtherResources
  - ▶ TeamMemberCanUpdateNotebooks
  - ▶ TeamMemberDisplayPlannedUnits
  - ▶ TeamMemberIncludePrimaryResources
  - ▶ TeamMemberResourceAssignmentFields
  - ▶ TeamMemberStepUDFViewableFields
  - ▶ TeamMemberStepsAddDeletable
  - ▶ TeamMemberViewableFields
  - ▶ TotalBenefitPlan
  - ▶ TotalBenefitPlanTally
  - ▶ TotalFunding
  - ▶ TotalSpendingPlan
  - ▶ TotalSpendingPlanTally
  - ▶ UnallocatedBudget
  - ▶ UndistributedCurrentVariance
  - ▶ UnifierCBSTasksOnlyFlag
  - ▶ UnifierDataMappingName
  - ▶ UnifierDeleteActivitiesFlag
  - ▶ UnifierEnabledFlag
  - ▶ UnifierProjectName
  - ▶ UnifierProjectNumber
  - ▶ UnifierScheduleSheetName
  - ▶ UnitPerTimeOvertimeFactor
  - ▶ UseExpectedFinishDates
  - ▶ UseProjectBaselineForEarnedValue
  - ▶ WBSCategoryObjectId
  - ▶ WBSCodeSeparator
  - ▶ WBSHierarchyLevels
  - ▶ WBSMilestonePercentComplete
  - ▶ WBSObjectId
  - ▶ WebSiteRootDirectory
  - ▶ WebSiteURL

### **ProjectBudgetChangeLog**

- ▶ Include

▶ Field

- ▶ Amount
- ▶ ChangeNumber
- ▶ CreateDate
- ▶ CreateUser
- ▶ Date
- ▶ IsBaseline
- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ ObjectId
- ▶ ProjectId
- ▶ ProjectObjectId
- ▶ Reason
- ▶ Responsible
- ▶ Status
- ▶ WBSCode
- ▶ WBSName
- ▶ WBSObjectId

**ProjectCode**

▶ Include

▶ Field

- ▶ CodeTypeName
- ▶ CodeTypeObjectId
- ▶ CodeValue
- ▶ CreateDate
- ▶ CreateUser
- ▶ Description
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ ObjectId
- ▶ ParentObjectId
- ▶ SequenceNumber
- ▶ Weight

**ProjectCodeAssignment**

▶ Include

**ProjectCodeType**

▶ Include

- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ IsSecureCode
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Length
  - ▶ MaxCodeValueWeight
  - ▶ Name
  - ▶ ObjectId
  - ▶ SequenceNumber
  - ▶ Weight

### **ProjectDocument**

- ▶ Include
- ▶ Field
  - ▶ ActivityId
  - ▶ ActivityName
  - ▶ ActivityObjectId
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ DocumentCategoryName
  - ▶ DocumentObjectId
  - ▶ DocumentStatusName
  - ▶ DocumentTitle
  - ▶ IsBaseline
  - ▶ IsTemplate
  - ▶ IsWorkProduct
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ObjectId
  - ▶ ParentWBSObjectId
  - ▶ ProjectId
  - ▶ ProjectObjectId
  - ▶ WBSCode
  - ▶ WBSName
  - ▶ WBSObjectId

### **ProjectFunding**

- ▶ Include

▶ Field

- ▶ Amount
- ▶ CreateDate
- ▶ CreateUser
- ▶ FundShare
- ▶ FundingSourceName
- ▶ FundingSourceObjectId
- ▶ IsBaseline
- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ ObjectId
- ▶ ProjectId
- ▶ ProjectObjectId

**ProjectIssue**

▶ Include

▶ Field

- ▶ ActivityId
- ▶ ActivityName
- ▶ ActivityObjectId
- ▶ ActualValue
- ▶ CreateDate
- ▶ CreateUser
- ▶ DateIdentified
- ▶ IdentifiedBy
- ▶ IsBaseline
- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ LowerThreshold
- ▶ Name
- ▶ Notes
- ▶ OBSName
- ▶ OBSObjectId
- ▶ ObjectId
- ▶ Priority
- ▶ ProjectId
- ▶ ProjectName
- ▶ ProjectObjectId

- ▶ ProjectThresholdObjectId
- ▶ RawTextNote
- ▶ ResolutionDate
- ▶ ResourceId
- ▶ ResourceName
- ▶ ResourceObjectId
- ▶ Status
- ▶ ThresholdParameterObjectId
- ▶ UpperThreshold
- ▶ WBSCode
- ▶ WBSName
- ▶ WBSObjectId

### **ProjectNote**

- ▶ Include
- ▶ Field
  - ▶ AvailableForActivity
  - ▶ AvailableForEPS
  - ▶ AvailableForProject
  - ▶ AvailableForWBS
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ IsBaseline
  - ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Note
  - ▶ NotebookTopicName
  - ▶ NotebookTopicObjectId
  - ▶ ObjectId
  - ▶ ProjectId
  - ▶ ProjectObjectId
  - ▶ RawTextNote
  - ▶ WBSCode
  - ▶ WBSName
  - ▶ WBSObjectId

### **ProjectResource**

- ▶ Include
- ▶ Field

- ▶ CommittedFlag
- ▶ CreateDate
- ▶ CreateUser
- ▶ FinishDate
- ▶ IsBaseline
- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ LifeOfProjectFlag
- ▶ ObjectId
- ▶ ProjectId
- ▶ ProjectObjectId
- ▶ ProjectResourceCategoryName
- ▶ ProjectResourceCategoryId
- ▶ ResourceName
- ▶ ResourceObjectId
- ▶ ResourceRequest
- ▶ RoleName
- ▶ RoleObjectId
- ▶ StartDate
- ▶ Status
- ▶ TotalUnits
- ▶ WBSCode
- ▶ WBSObjectId

### **ProjectResourceCategory**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId

### **ProjectResourceQuantity**

- ▶ Include
- ▶ Field
  - ▶ CommittedFlag
  - ▶ CreateDate



- ▶ CreateUser
- ▶ FinancialPeriod1ObjectId
- ▶ FinancialPeriod1Quantity
- ▶ FinancialPeriod2ObjectId
- ▶ FinancialPeriod2Quantity
- ▶ FinancialPeriodTplId
- ▶ IsBaseline
- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ MonthStartDate
- ▶ ProjectObjectId
- ▶ ProjectResourceObjectId
- ▶ Quantity
- ▶ ResourceObjectId
- ▶ RoleObjectId
- ▶ WBSObjectId
- ▶ WeekStartDate

### **ProjectSpendingPlan**

- ▶ Include
- ▶ Field
  - ▶ BenefitPlan
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Date
  - ▶ IsBaseline
  - ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ObjectId
  - ▶ ProjectId
  - ▶ ProjectObjectId
  - ▶ SpendingPlan
  - ▶ WBSCode
  - ▶ WBSName
  - ▶ WBSObjectId

### **ProjectThreshold**

- ▶ Include

▶ Field

- ▶ CreateDate
- ▶ CreateUser
- ▶ DetailToMonitor
- ▶ FromDate
- ▶ FromDateExpression
- ▶ IsBaseline
- ▶ IsTemplate
- ▶ IssuePriority
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ LowerThreshold
- ▶ OBSObjectid
- ▶ Objectid
- ▶ ProjectId
- ▶ ProjectObjectid
- ▶ Status
- ▶ ThresholdParameterObjectid
- ▶ ToDate
- ▶ ToDateExpression
- ▶ UpperThreshold
- ▶ WBSCode
- ▶ WBSName
- ▶ WBSObjectid

**Relationship**

▶ Include

▶ Field

- ▶ Aref
- ▶ ArIs
- ▶ Comments
- ▶ CreateDate
- ▶ CreateUser
- ▶ Driving
- ▶ IsPredecessorBaseline
- ▶ IsPredecessorTemplate
- ▶ IsSuccessorBaseline
- ▶ IsSuccessorTemplate
- ▶ Lag
- ▶ LastUpdateDate

- ▶ LastUpdateUser
- ▶ ObjectId
- ▶ PredActIsLongestPath
- ▶ PredActPercentCompleteType
- ▶ PredActualFinishDate
- ▶ PredActualStartDate
- ▶ PredEarlyFinishDate
- ▶ PredEarlyStartDate
- ▶ PredFreeFloat
- ▶ PredLateFinishDate
- ▶ PredLateStartDate
- ▶ PredTotalFloat
- ▶ PredecessorActivityId
- ▶ PredecessorActivityName
- ▶ PredecessorActivityObjectId
- ▶ PredecessorActivityType
- ▶ PredecessorFinishDate
- ▶ PredecessorProjectId
- ▶ PredecessorProjectName
- ▶ PredecessorProjectObjectId
- ▶ PredecessorStartDate
- ▶ PredecessorWbsName
- ▶ PredecessorWbsShortName
- ▶ SuccessorActivityId
- ▶ SuccessorActivityName
- ▶ SuccessorActivityObjectId
- ▶ SuccessorActivityType
- ▶ SuccessorFinishDate
- ▶ SuccessorProjectId
- ▶ SuccessorProjectObjectId
- ▶ SuccessorStartDate
- ▶ SuccessorWbsName
- ▶ Type

**Resource**

- ▶ Include
- ▶ Field
  - ▶ AutoComputeActuals
  - ▶ CalculateCostFromUnits
  - ▶ CalendarName

- ▶ CalendarObjectId
- ▶ CreateDate
- ▶ CreateUser
- ▶ CurrencyId
- ▶ CurrencyName
- ▶ CurrencyObjectId
- ▶ DefaultUnitsPerTime
- ▶ EffectiveDate
- ▶ EmailAddress
- ▶ EmployeeId
- ▶ GUID
- ▶ Id
- ▶ IntegratedType
- ▶ IsActive
- ▶ IsOverTimeAllowed
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ Latitude
- ▶ LocationName
- ▶ LocationObjectId
- ▶ Longitude
- ▶ MaxUnitsPerTime
- ▶ Name
- ▶ ObjectId
- ▶ OfficePhone
- ▶ OtherPhone
- ▶ OvertimeFactor
- ▶ ParentObjectId
- ▶ PricePerUnit
- ▶ PrimaryRoleId
- ▶ PrimaryRoleName
- ▶ PrimaryRoleObjectId
- ▶ ResourceNotes
- ▶ ResourceType
- ▶ SequenceNumber
- ▶ ShiftObjectId
- ▶ TimesheetApprovalManager
- ▶ TimesheetApprovalManagerObjectId
- ▶ Title

- ▶ UnitOfMeasureAbbreviation
- ▶ UnitOfMeasureName
- ▶ UnitOfMeasureObjectId
- ▶ UseTimesheets
- ▶ UserName
- ▶ UserObjectId

### **ResourceAssignment**

- ▶ Include
- ▶ Field
  - ▶ ActivityActualFinish
  - ▶ ActivityId
  - ▶ ActivityName
  - ▶ ActivityObjectId
  - ▶ ActivityType
  - ▶ ActualCost
  - ▶ ActualCurve
  - ▶ ActualDuration
  - ▶ ActualFinishDate
  - ▶ ActualOvertimeCost
  - ▶ ActualOvertimeUnits
  - ▶ ActualRegularCost
  - ▶ ActualRegularUnits
  - ▶ ActualStartDate
  - ▶ ActualThisPeriodCost
  - ▶ ActualThisPeriodUnits
  - ▶ ActualUnits
  - ▶ ResourceAssignmentFieldType
  - ▶ AtCompletionCost
  - ▶ AtCompletionDuration
  - ▶ AtCompletionUnits
  - ▶ AutoComputeActuals
  - ▶ BudgetAtCompletionCosts
  - ▶ BudgetAtCompletionUnits
  - ▶ CBSId
  - ▶ CBSCode
  - ▶ CalendarName
  - ▶ CalendarObjectId
  - ▶ CostAccountId
  - ▶ CostAccountName

- ▶ CostAccountObjectId
- ▶ CreateDate
- ▶ CreateUser
- ▶ DrivingActivityDatesFlag
- ▶ DurationPercentComplete
- ▶ EstimateToCompletionCosts
- ▶ EstimateToCompletionUnits
- ▶ FinancialPeriodTmplId
- ▶ FinishDate
- ▶ GUID
- ▶ HasFutureBucketData
- ▶ IsActive
- ▶ IsActivityFlagged
- ▶ IsBaseline
- ▶ IsCostUnitsLinked
- ▶ IsOvertimeAllowed
- ▶ IsPrimaryResource
- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ ObjectId
- ▶ OvertimeFactor
- ▶ PendingActualOvertimeUnits
- ▶ PendingActualRegularUnits
- ▶ PendingPercentComplete
- ▶ PendingRemainingUnits
- ▶ PercentComplete
- ▶ PercentCompleteType
- ▶ PlannedCost
- ▶ PlannedCurve
- ▶ PlannedDuration
- ▶ PlannedFinishDate
- ▶ PlannedLag
- ▶ PlannedStartDate
- ▶ PlannedUnits
- ▶ PlannedUnitsPerTime
- ▶ PricePerUnit
- ▶ PriorActualOvertimeUnits
- ▶ PriorActualRegularUnits

- ▶ Proficiency
- ▶ ProjectFlag
- ▶ ProjectId
- ▶ ProjectName
- ▶ ProjectObjectId
- ▶ ProjectProjectFlag
- ▶ RateSource
- ▶ RateType
- ▶ RemainingCost
- ▶ RemainingCurve
- ▶ RemainingDuration
- ▶ RemainingFinishDate
- ▶ RemainingLag
- ▶ RemainingLateFinishDate
- ▶ RemainingLateStartDate
- ▶ RemainingStartDate
- ▶ RemainingUnits
- ▶ RemainingUnitsPerTime
- ▶ ResourceCalendarName
- ▶ ResourceCurveName
- ▶ ResourceCurveObjectId
- ▶ ResourceId
- ▶ ResourceName
- ▶ ResourceObjectId
- ▶ ResourceRequest
- ▶ ResourceType
- ▶ ReviewRequired
- ▶ RoleId
- ▶ RoleName
- ▶ RoleObjectId
- ▶ RoleShortName
- ▶ StaffedRemainingCost
- ▶ StaffedRemainingUnits
- ▶ StartDate
- ▶ StatusCode
- ▶ UnitsPercentComplete
- ▶ UnreadCommentCount
- ▶ UnstaffedRemainingCost
- ▶ UnstaffedRemainingUnits

- ▶ WBSObjectld

### **ResourceAssignmentCode**

- ▶ Include
- ▶ Field
  - ▶ CodeTypeName
  - ▶ CodeTypeObjectld
  - ▶ CodeValue
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Description
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Objectld
  - ▶ ParentObjectld
  - ▶ SequenceNumber

### **ResourceAssignmentCodeAssignment**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ProjectObjectld
  - ▶ ResourceAssignmentCodeDescription
  - ▶ ResourceAssignmentCodeObjectld
  - ▶ ResourceAssignmentCodeTypeName
  - ▶ ResourceAssignmentCodeTypeObjectld
  - ▶ ResourceAssignmentCodeValue
  - ▶ ResourceAssignmentObjectld

### **ResourceAssignmentCodeType**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ IsSecureCode
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Length



- ▶ Name
- ▶ ObjectId
- ▶ SequenceNumber

### **ResourceAssignmentPeriodActual**

- ▶ Include
- ▶ Field
  - ▶ ActivityObjectId
  - ▶ ActualCost
  - ▶ ActualUnits
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ FinancialPeriodObjectId
  - ▶ IsBaseline
  - ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ProjectObjectId
  - ▶ ResourceAssignmentObjectId
  - ▶ ResourceType
  - ▶ WBSObjectId

### **ResourceCode**

- ▶ Include
- ▶ Field
  - ▶ CodeConcatName
  - ▶ CodeTypeName
  - ▶ CodeTypeObjectId
  - ▶ CodeValue
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Description
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ObjectId
  - ▶ ParentObjectId
  - ▶ SequenceNumber

### **ResourceCodeAssignment**

- ▶ Include

### **ResourceCodeType**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ IsSecureCode
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Length
  - ▶ Name
  - ▶ ObjectId
  - ▶ SequenceNumber

### **ResourceCurve**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ IsDefault
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId

### **ResourceRate**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ EffectiveDate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ MaxUnitsPerTime
  - ▶ ObjectId
  - ▶ PricePerUnit
  - ▶ PricePerUnit2
  - ▶ PricePerUnit3
  - ▶ PricePerUnit4
  - ▶ PricePerUnit5
  - ▶ ResourceId

- ▶ ResourceName
- ▶ ResourceObjectId
- ▶ ShiftPeriodObjectId

**ResourceRole**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Proficiency
  - ▶ ResourceId
  - ▶ ResourceName
  - ▶ ResourceObjectId
  - ▶ RoleId
  - ▶ RoleName
  - ▶ RoleObjectId

**Risk**

- ▶ Include
- ▶ Field
  - ▶ Cause
  - ▶ CostThresholdId
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Description
  - ▶ Effect
  - ▶ Exposure
  - ▶ ExposureFinishDate
  - ▶ ExposureStartDate
  - ▶ Id
  - ▶ IdentifiedByResourceId
  - ▶ IdentifiedByResourceName
  - ▶ IdentifiedByResourceObjectId
  - ▶ IdentifiedDate
  - ▶ ImpactThresholdValues
  - ▶ IsBaseline
  - ▶ IsTemplate
  - ▶ LastUpdateDate

- ▶ LastUpdateUser
- ▶ Name
- ▶ Note
- ▶ ObjectId
- ▶ ParentObjectId
- ▶ ProbabilityThresholdId
- ▶ ProjectId
- ▶ ProjectName
- ▶ ProjectObjectId
- ▶ ResourceId
- ▶ ResourceName
- ▶ ResourceObjectId
- ▶ ResponseTotalCost
- ▶ RiskCategoryName
- ▶ RiskCategoryObjectId
- ▶ ScheduleThresholdId
- ▶ Score
- ▶ ScoreColor
- ▶ ScoreText
- ▶ Status
- ▶ Type

### **RiskCategory**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ ParentObjectId
  - ▶ SequenceNumber

### **RiskImpact**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ IsBaseline

- 
- ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ProjectId
  - ▶ ProjectName
  - ▶ ProjectObjectId
  - ▶ RiskId
  - ▶ RiskName
  - ▶ RiskObjectId
  - ▶ RiskThresholdLevelCode
  - ▶ RiskThresholdLevelName
  - ▶ RiskThresholdLevelObjectId
  - ▶ RiskThresholdName
  - ▶ RiskThresholdObjectId

### **RiskMatrixScore**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ObjectId
  - ▶ ProbabilityThresholdLevel
  - ▶ RiskMatrixName
  - ▶ RiskMatrixObjectId
  - ▶ Severity1
  - ▶ Severity1Label
  - ▶ Severity2
  - ▶ Severity2Label
  - ▶ Severity3
  - ▶ Severity3Label
  - ▶ Severity4
  - ▶ Severity4Label
  - ▶ Severity5
  - ▶ Severity5Label
  - ▶ Severity6
  - ▶ Severity6Label
  - ▶ Severity7
  - ▶ Severity7Label

- ▶ Severity8
- ▶ Severity8Label
- ▶ Severity9
- ▶ Severity9Label

### **RiskMatrixThreshold**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ RiskMatrixName
  - ▶ RiskMatrixObjectId
  - ▶ RiskThresholdName
  - ▶ RiskThresholdObjectId

### **RiskResponseAction**

- ▶ Include
- ▶ Field
  - ▶ ActivityId
  - ▶ ActivityName
  - ▶ ActivityObjectId
  - ▶ ActualCost
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ FinishDate
  - ▶ Id
  - ▶ IsBaseline
  - ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ PlannedCost
  - ▶ PlannedFinishDate
  - ▶ PlannedStartDate
  - ▶ ProjectId
  - ▶ ProjectName
  - ▶ ProjectObjectId

- ▶ RemainingCost
- ▶ ResourceId
- ▶ ResourceName
- ▶ ResourceObjectId
- ▶ RiskId
- ▶ RiskObjectId
- ▶ RiskResponsePlanId
- ▶ RiskResponsePlanName
- ▶ RiskResponsePlanObjectId
- ▶ Score
- ▶ ScoreColor
- ▶ ScoreText
- ▶ StartDate
- ▶ Status

### **RiskResponseActionImpact**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ IsBaseline
  - ▶ IsTemplate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ProjectId
  - ▶ ProjectName
  - ▶ ProjectObjectId
  - ▶ RiskId
  - ▶ RiskObjectId
  - ▶ RiskResponseActionId
  - ▶ RiskResponseActionName
  - ▶ RiskResponseActionObjectId
  - ▶ RiskThresholdLevelCode
  - ▶ RiskThresholdLevelName
  - ▶ RiskThresholdLevelObjectId
  - ▶ RiskThresholdName
  - ▶ RiskThresholdObjectId

### **RiskResponsePlan**

- ▶ Include

▶ Field

- ▶ ActualCost
- ▶ CreateDate
- ▶ CreateUser
- ▶ FinishDate
- ▶ Id
- ▶ IsActive
- ▶ IsBaseline
- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ Name
- ▶ ObjectId
- ▶ PlannedCost
- ▶ PlannedFinishDate
- ▶ PlannedStartDate
- ▶ ProjectId
- ▶ ProjectName
- ▶ ProjectObjectId
- ▶ RemainingCost
- ▶ ResponseType
- ▶ RiskId
- ▶ RiskName
- ▶ RiskObjectId
- ▶ Score
- ▶ ScoreColor
- ▶ ScoreText
- ▶ StartDate

**RiskMatrix**

▶ Include

▶ Field

- ▶ CreateDate
- ▶ CreateUser
- ▶ Description
- ▶ ImpactThresholdLevel
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ Name
- ▶ ObjectId



- ▶ ProbabilityThresholdLevel
- ▶ RiskScoringMethod

### **RiskThresholdLevel**

- ▶ Include
- ▶ Field
  - ▶ Code
  - ▶ Color
  - ▶ CostRange
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Level
  - ▶ Name
  - ▶ ObjectId
  - ▶ ProbabilityRange
  - ▶ Range
  - ▶ RiskThresholdName
  - ▶ RiskThresholdObjectId
  - ▶ ScheduleRange
  - ▶ ThresholdType
  - ▶ ToleranceRange

### **RiskThreshold**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Level
  - ▶ Name
  - ▶ ObjectId
  - ▶ ThresholdType

### **Role**

- ▶ Include
- ▶ Field
  - ▶ CalculateCostFromUnits
  - ▶ CreateDate

- ▶ CreateUser
- ▶ Id
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ Name
- ▶ ObjectId
- ▶ ParentObjectId
- ▶ Responsibilities
- ▶ SequenceNumber

### **RoleCode**

- ▶ Include
- ▶ Field
  - ▶ CodeTypeName
  - ▶ CodeTypeObjectId
  - ▶ CodeValue
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Description
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ObjectId
  - ▶ ParentObjectId
  - ▶ SequenceNumber

### **RoleCodeAssignment**

- ▶ Include

### **RoleCodeType**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ IsSecureCode
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Length
  - ▶ Name
  - ▶ ObjectId
  - ▶ SequenceNumber

**RoleRate**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ EffectiveDate
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ MaxUnitsPerTime
  - ▶ ObjectId
  - ▶ PricePerUnit
  - ▶ PricePerUnit2
  - ▶ PricePerUnit3
  - ▶ PricePerUnit4
  - ▶ PricePerUnit5
  - ▶ RoleId
  - ▶ RoleName
  - ▶ RoleObjectId

**Shift**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId

**ThresholdParameter**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ Type

### **UDFCode**

- ▶ Include
- ▶ Field
  - ▶ CodeTypeObjectId
  - ▶ CodeTypeTitle
  - ▶ CodeValue
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ Description
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ObjectId
  - ▶ SequenceNumber

### **UDFType**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ DataType
  - ▶ DisplayIndicatorFlag
  - ▶ Formula
  - ▶ IsCalculated
  - ▶ IsConditional
  - ▶ IsSecureCode
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ ObjectId
  - ▶ SubjectArea
  - ▶ SummaryMethod
  - ▶ Title

### **UDFValue**

- ▶ Include

### **UnitOfMeasure**

- ▶ Include
- ▶ Field
  - ▶ Abbreviation
  - ▶ CreateDate
  - ▶ CreateUser

- 
- ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ SequenceNumber

**WBS**

- ▶ Include
- ▶ Field
  - ▶ AnticipatedFinishDate
  - ▶ AnticipatedStartDate
  - ▶ Code
  - ▶ ContainsSummaryData
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ CurrentBudget
  - ▶ CurrentVariance
  - ▶ DistributedCurrentBudget
  - ▶ EarnedValueComputeType
  - ▶ EarnedValueETCComputeType
  - ▶ EarnedValueETCUserValue
  - ▶ EarnedValueUserPercent
  - ▶ FinishDate
  - ▶ ForecastFinishDate
  - ▶ ForecastStartDate
  - ▶ GUID
  - ▶ IndependentETCLaborUnits
  - ▶ IndependentETCTotalCost
  - ▶ IntegratedType
  - ▶ IntegratedWBS
  - ▶ IsBaseline
  - ▶ IsTemplate
  - ▶ IsWorkPackage
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ OBSName
  - ▶ OBSObjectId
  - ▶ ObjectId
  - ▶ OriginalBudget

- ▶ ParentObjectId
- ▶ ProjectId
- ▶ ProjectObjectId
- ▶ ProposedBudget
- ▶ RolledUpFinishDate
- ▶ RolledUpStartDate
- ▶ SequenceNumber
- ▶ StartDate
- ▶ Status
- ▶ StatusReviewerName
- ▶ StatusReviewerObjectId
- ▶ SummaryAccountingVarianceByCost
- ▶ SummaryAccountingVarianceByLaborUnits
- ▶ SummaryActivityCount
- ▶ SummaryActualDuration
- ▶ SummaryActualExpenseCost
- ▶ SummaryActualFinishDate
- ▶ SummaryActualLaborCost
- ▶ SummaryActualLaborUnits
- ▶ SummaryActualMaterialCost
- ▶ SummaryActualNonLaborCost
- ▶ SummaryActualNonLaborUnits
- ▶ SummaryActualStartDate
- ▶ SummaryActualThisPeriodCost
- ▶ SummaryActualThisPeriodLaborCost
- ▶ SummaryActualThisPeriodLaborUnits
- ▶ SummaryActualThisPeriodMaterialCost
- ▶ SummaryActualThisPeriodNonLaborCost
- ▶ SummaryActualThisPeriodNonLaborUnits
- ▶ SummaryActualTotalCost
- ▶ SummaryActualValueByCost
- ▶ SummaryActualValueByLaborUnits
- ▶ SummaryAtCompletionDuration
- ▶ SummaryAtCompletionExpenseCost
- ▶ SummaryAtCompletionLaborCost
- ▶ SummaryAtCompletionLaborUnits
- ▶ SummaryAtCompletionMaterialCost
- ▶ SummaryAtCompletionNonLaborCost
- ▶ SummaryAtCompletionNonLaborUnits

- 
- ▶ SummaryAtCompletionTotalCost
  - ▶ SummaryAtCompletionTotalCostVariance
  - ▶ SummaryBaselineCompletedActivityCount
  - ▶ SummaryBaselineDuration
  - ▶ SummaryBaselineExpenseCost
  - ▶ SummaryBaselineFinishDate
  - ▶ SummaryBaselineInProgressActivityCount
  - ▶ SummaryBaselineLaborCost
  - ▶ SummaryBaselineLaborUnits
  - ▶ SummaryBaselineMaterialCost
  - ▶ SummaryBaselineNonLaborCost
  - ▶ SummaryBaselineNonLaborUnits
  - ▶ SummaryBaselineNotStartedActivityCount
  - ▶ SummaryBaselineStartDate
  - ▶ SummaryBaselineTotalCost
  - ▶ SummaryBudgetAtCompletionByCost
  - ▶ SummaryBudgetAtCompletionByLaborUnits
  - ▶ SummaryCompletedActivityCount
  - ▶ SummaryCostPercentComplete
  - ▶ SummaryCostPercentOfPlanned
  - ▶ SummaryCostPerformanceIndexByCost
  - ▶ SummaryCostPerformanceIndexByLaborUnits
  - ▶ SummaryCostVarianceByCost
  - ▶ SummaryCostVarianceByLaborUnits
  - ▶ SummaryCostVarianceIndex
  - ▶ SummaryCostVarianceIndexByCost
  - ▶ SummaryCostVarianceIndexByLaborUnits
  - ▶ SummaryDurationPercentComplete
  - ▶ SummaryDurationPercentOfPlanned
  - ▶ SummaryDurationVariance
  - ▶ SummaryEarnedValueByCost
  - ▶ SummaryEarnedValueByLaborUnits
  - ▶ SummaryEstimateAtCompletionByCost
  - ▶ SummaryEstimateAtCompletionByLaborUnits
  - ▶ SummaryEstimateAtCompletionHighPercentByLaborUnits
  - ▶ SummaryEstimateAtCompletionLowPercentByLaborUnits
  - ▶ SummaryEstimateToCompleteByCost
  - ▶ SummaryEstimateToCompleteByLaborUnits
  - ▶ SummaryExpenseCostPercentComplete

- ▶ SummaryExpenseCostVariance
- ▶ SummaryFinishDateVariance
- ▶ SummaryInProgressActivityCount
- ▶ SummaryLaborCostPercentComplete
- ▶ SummaryLaborCostVariance
- ▶ SummaryLaborUnitsPercentComplete
- ▶ SummaryLaborUnitsVariance
- ▶ SummaryMaterialCostPercentComplete
- ▶ SummaryMaterialCostVariance
- ▶ SummaryNonLaborCostPercentComplete
- ▶ SummaryNonLaborCostVariance
- ▶ SummaryNonLaborUnitsPercentComplete
- ▶ SummaryNonLaborUnitsVariance
- ▶ SummaryNotStartedActivityCount
- ▶ SummaryPerformancePercentCompleteByCost
- ▶ SummaryPerformancePercentCompleteByLaborUnits
- ▶ SummaryPlannedCost
- ▶ SummaryPlannedDuration
- ▶ SummaryPlannedExpenseCost
- ▶ SummaryPlannedFinishDate
- ▶ SummaryPlannedLaborCost
- ▶ SummaryPlannedLaborUnits
- ▶ SummaryPlannedMaterialCost
- ▶ SummaryPlannedNonLaborCost
- ▶ SummaryPlannedNonLaborUnits
- ▶ SummaryPlannedStartDate
- ▶ SummaryPlannedValueByCost
- ▶ SummaryPlannedValueByLaborUnits
- ▶ SummaryProgressFinishDate
- ▶ SummaryRemainingDuration
- ▶ SummaryRemainingExpenseCost
- ▶ SummaryRemainingFinishDate
- ▶ SummaryRemainingLaborCost
- ▶ SummaryRemainingLaborUnits
- ▶ SummaryRemainingMaterialCost
- ▶ SummaryRemainingNonLaborCost
- ▶ SummaryRemainingNonLaborUnits
- ▶ SummaryRemainingStartDate
- ▶ SummaryRemainingTotalCost



- 
- ▶ SummarySchedulePercentComplete
  - ▶ SummarySchedulePercentCompleteByLaborUnits
  - ▶ SummarySchedulePerformanceIndexByCost
  - ▶ SummarySchedulePerformanceIndexByLaborUnits
  - ▶ SummaryScheduleVarianceByCost
  - ▶ SummaryScheduleVarianceByLaborUnits
  - ▶ SummaryScheduleVarianceIndex
  - ▶ SummaryScheduleVarianceIndexByCost
  - ▶ SummaryScheduleVarianceIndexByLaborUnits
  - ▶ SummaryStartDateVariance
  - ▶ SummaryToCompletePerformanceIndexByCost
  - ▶ SummaryTotalCostVariance
  - ▶ SummaryTotalFloat
  - ▶ SummaryUnitsPercentComplete
  - ▶ SummaryVarianceAtCompletionByLaborUnits
  - ▶ TotalBenefitPlan
  - ▶ TotalBenefitPlanTally
  - ▶ TotalSpendingPlan
  - ▶ TotalSpendingPlanTally
  - ▶ UnallocatedBudget
  - ▶ UndistributedCurrentVariance
  - ▶ WBSCategoryObjectId
  - ▶ WBSMilestonePercentComplete

### **WBSCategory**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser
  - ▶ LastUpdateDate
  - ▶ LastUpdateUser
  - ▶ Name
  - ▶ ObjectId
  - ▶ SequenceNumber

### **WBSMilestone**

- ▶ Include
- ▶ Field
  - ▶ CreateDate
  - ▶ CreateUser

- ▶ IsBaseline
- ▶ IsCompleted
- ▶ IsTemplate
- ▶ LastUpdateDate
- ▶ LastUpdateUser
- ▶ Name
- ▶ ObjectId
- ▶ ProjectId
- ▶ ProjectObjectId
- ▶ SequenceNumber
- ▶ WBSCode
- ▶ WBSName
- ▶ WBSObjectId
- ▶ Weight

---

**Note:** Although you can specify the **LocationName** and **LocationObjectId** as fields to be exported, these fields cannot be imported by design.

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## Global Services

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### Calendar Service

#### Operations:

- CreateCalendars Operation** (on page 435)
- ReadCalendars Operation** (on page 438)
- UpdateCalendars Operation** (on page 439)
- DeleteCalendars Operation** (on page 439)
- CopyCalendar Operation** (on page 441)
- GetFieldLengthCalendar Operation** (on page 440)
- GetStandardTotalWorkHours Operation** (on page 440)
- GetTotalWorkHours Operation** (on page 440)
- GetHolidayExceptionDates Operation** (on page 441)
- SetStandardDetailedWorkHours Operation** (on page 436)
- GetStandardDetailedWorkHours Operation** (on page 436)
- SetDetailedWorkHours Operation** (on page 437)
- GetDetailedWorkHours Operation** (on page 438)

**WSDL: Calendar.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Calendar/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/CalendarService?wsdl>

<https://<hostname>:<port number>/p6ws/services/CalendarService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.calendar.CalendarService`

**Description:**

Calendars defined the available work hours in each calendar day. Three types exist: global, resource, and project. Either resource or global calendars can be assigned to resources, and either global or project calendars can be assigned to activities.

You can specify national holidays, your organization's holidays, project-specific work/nonworkdays, and resource vacation days. Calendar assignments are used for activity scheduling, tracking, and resource leveling. Whether an activity uses its assigned calendar or the calendar of an assigned resource depends on the activity type you specify.

You can link resource and project calendars to global calendars. Then, if you make changes to a global calendar, your changes apply to all resource and project calendars that are linked to the modified global calendar.

**CreateCalendars Operation**

Description: Creates multiple Calendar objects in the database. You can create up to 1000 Calendar objects with a single call.

**Service: *Calendar Service* (on page 434)**

Style: Document/literal wrapped

Input:

Message: CreateCalendars

Elements: Calendar elements that contain ***Calendar Fields*** (on page 441) fields

Required fields:

- ▶ Type
- ▶ Name

Output:

Message: CreateCalendarsResponse

Output: Zero to many ObjectId elements

### SetStandardDetailedWorkHours Operation

Description: Sets the standard detailed work hours for the given date. Detailed work hours provide information on specific worktime during the day, in half hour increments.

**Service:** *Calendar Service (on page 434)*

Input:

Message: SetStandardDetailedWorkHours

Elements:

Name	Type	Description	Required
CalendarObjectId	int	The unique identifier of the calendar object.	Yes
IDayOfWeek	int	The day of the week (from 1 to 7).	Yes
DetailedWorkHours	string	Standard detailed time hours for the day of the week.	Yes

Output:

Message: SetStandardDetailedWorkHoursResponse

Elements:

Name	Type	Description
Success	boolean	Indicates whether the option succeeded or failed.

### GetStandardDetailedWorkHours Operation

Description: Gets the standard detailed work hours for the given day of week. Detailed work hours provide information on specific worktime during the day, in half hour increments.

**Service:** *Calendar Service (on page 434)*

Input:

Message: GetStandardDetailedWorkHours

Elements:

Name	Type	Description	Required
------	------	-------------	----------

CalendarObjectI d	int	The unique identifier for the calendar object.	Yes
IDayOfWeek	int	The day of the week (from 1 to 7).	Yes

Output:

Message: GetStandardDetailedWorkHoursResponse

Elements:

Name	Type	Description
DetailedWorkHours	string	The standard detailed work hours for the queried day of the week.

### SetDetailedWorkHours Operation

Description: Sets the detailed work hours for the specified date. Detailed work hours provide information on specific worktime during the day, in half hour increments.

**Service:** *Calendar Service (on page 434)*

Input:

Message: SetDetailedWorkHours

Elements:

Name	Type	Description	Required
CalendarObjectI d	int	The unique identifier for the calendar object.	Yes
Date	dateTime	Date on which detailed work hours will be set.	Yes
DetailedWorkHo urs	string	The detailed work hours to set for the specified date.	Yes

Output:

Message: SetDetailedWorkHoursResponse

Elements:

Name	Type	Description
Success	boolean	Indicates whether the operation succeeded or failed.

### GetDetailedWorkHours Operation

Description: Gets the detailed work hours for the specified date. Detailed work hours provide information on specific worktime during the day, in half hour increments.

**Service:** *Relationship Service (on page 194)*

Input:

Message: GetDetailedWorkHours

Elements:

Name	Type	Description	Required
CalendarObjectI d	int	The unique identifier for the calendar object.	Yes
Date	dateTime	Date with set detailed work hours.	Yes

Output:

Message: GetDetailedWorkHoursResponse

Elements:

Name	Type	Description
DetailedWorkHours	string	The detailed work hours retrieved from the queried date.

### ReadCalendars Operation

Description: Reads Calendar objects from the database.

**Service:** *Calendar Service (on page 434)*

Style: Document/literal wrapped

Input:

Message: ReadCalendars

Elements: One to many field names from the **Calendar Fields** (on page 441) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadCalendarsResponse

Output: Zero to many Calendar elements that contain Calendar fields.

### UpdateCalendars Operation

Description: Updates multiple Calendar objects in the database. You can update up to 1000 Calendar objects with a single call.

**Service:** *Calendar Service (on page 434)*

Style: Document/literal wrapped

Input:

Message: UpdateCalendars

Elements: Calendar elements that contain **Calendar Fields** (on page 441) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateCalendarsResponse

Output: boolean

### DeleteCalendars Operation

Description: Deletes multiple Calendar objects in the database. You can delete up to 1000 Calendar objects with a single call.

**Service:** *Calendar Service (on page 434)*

Style: Document/literal wrapped

Input:

Message: DeleteCalendars

Elements: One to many ObjectID elements.

You can also optionally specify one to many DeleteWithReplacement elements that contain ObjectID and ReplacementObjectID elements.

Output:

Message: DeleteCalendarsResponse

Output: boolean

### GetFieldLengthCalendar Operation

Description: Returns length of variable character fields for a BO.

**Service:** *Calendar Service (on page 434)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthCalendar

Elements: FieldLength

Output:

Message: GetFieldLengthCalendarResponse

Elements: One to many FieldLengthCalendars.

### GetStandardTotalWorkHours Operation

Description: Gets the standard total work hours for a given day of the week.

**Service:** *Calendar Service (on page 434)*

Style: Document/literal wrapped

Input:

Message: GetStandardTotalWorkHours

Elements:

- ▶ CalendarObjectId
- ▶ IDayOfWeek

Output:

Message: GetStandardTotalWorkHoursResponse

Element: StandardTotalWorkHours

### GetTotalWorkHours Operation

Description: Gets the total work hours for a given date.

**Service:** *Calendar Service (on page 434)*

Style: Document/literal wrapped

Input:

Message: GetTotalWorkHours

Elements:

- ▶ CalendarObjectId
- ▶ Date

Output:



Message: GetTotalWorkHoursResponse

Output: TotalWorkHours

### GetHolidayExceptionDates Operation

Description: Gets a list of all dates on a calendar that has either a holiday or an exception.

**Service:** *Calendar Service (on page 434)*

Style: Document/literal wrapped

Input:

Message: GetHolidayExceptionDates

Elements:

- ▶ CalendarObjectId

Output:

Message: GetHolidayExceptionDatesResponse

Elements: HolidayExceptionDates

### CopyCalendar Operation

Description: This operation makes a copy of a specified global, project, or resource calendar and returns the object ID of the newly created calendar.

**Service:** *Calendar Service (on page 434)*

Style: Document/literal wrapped

Input:

Message: CopyCalendar

Required fields: CalendarObjectId of the calendar to copy. If the calendar to copy is a private resource calendar, you must also supply the ResourceObjectId.

Output:

Message: CopyCalendarResponse

Elements: An ObjectId representing the unique identifier of the new calendar.

### Calendar Fields

Field	Type	Read Only	Filterable Orderable	Description
BaseCalendarObjectId	int		X	The unique ID of the global calendar to which this calendar is linked. Any changes to

				the global calendar are automatically propagated to this calendar.
CreateDate	dateTime	X	X	The date this calendar was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this calendar.
HolidayOrExceptions	See the HolidayOrException table below			
HoursPerDay	double restricted to minInclusive(1.0) maxInclusive(24.0)		X	The number of work hours per day. This conversion factor is used for displaying time units and durations in the user's selected display formats.
HoursPerMonth	double restricted to minInclusive(1.0) maxInclusive(744.0)		X	The number of work hours per month. This conversion factor is used for displaying time units and durations in the user's selected display formats.
HoursPerWeek	double restricted to minInclusive(1.0) maxInclusive(168.0)		X	The number of work hours per week. This conversion factor is used for displaying time units and durations in the user's

				selected display formats.
HoursPerYear	double restricted to minInclusive(1.0) maxInclusive(8784.0)		X	The number of work hours per year. This conversion factor is used for displaying time units and durations in the user's selected display formats.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsDefault	boolean		X	The flag that identifies the default global calendar (applies to global calendars only).
IsPersonal	boolean		X	The flag indicating if this calendar is a personal calendar (applies to resource calendars only).
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this calendar was last updated.

LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this calendar.
Name	string restricted to maxLength(255)		X	The name of the calendar.
ObjectId	int		X	The unique ID generated by the system.
ProjectId	string restricted to maxLength(40)		x	The ID for the project for which this change request is associated.
ProjectObjectId	int		X	The unique ID of the associated project.
StandardWorkWeek	See the StandardWorkHours table below			
Type	string restricted to 'Global' 'Project' 'Resource'		X	The calendar type - either 'Global', 'Resource', or 'Project'. 'Global' calendars can be assigned to projects and resources. 'Resource' calendars can be assigned only to resources. 'Project' calendars are specific to projects.

**HolidayOrException Table**

Element	Type
Date	dateTime
WorkTime	
Finish	time
Start	time

**StandardWorkHours table**

Element	Type
Date	DayOfWeek string restricted to 'Sunday' 'Monday' 'Tuesday' Wednesday 'Thursday' 'Friday' 'Saturday'
WorkTime	
Finish	time
Start	time

**CostAccount Service****Operations:**

**CreateCostAccounts Operation** (on page 446)

**ReadCostAccounts Operation** (on page 446)

**UpdateCostAccounts Operation** (on page 447)

**DeleteCostAccounts Operation** (on page 447)

***GetFieldLengthCostAccount Operation*** (on page 448)

***ReadCostAccountPath Operation*** (on page 448)

### **WSDL: CostAccount.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/CostAccount/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/CostAccountService?wsdl>

<https://<hostname>:<port number>/p6ws/services/CostAccountService?wsdl>

### **Java Client Stub Class:**

`com.primavera.ws.p6.costaccount.CostAccountService`

### **Description:**

Cost accounts contain the organization's cost account IDs. Available across all projects, they support tracking of costs and earned value based on the organization's cost account IDs. Cost accounts are hierarchical objects.

You can specify a project's default cost account. This cost account is used for resource assignments to activities and project expenses in the open project.

## **CreateCostAccounts Operation**

Description: Creates multiple CostAccount objects in the database. You can create up to 1000 CostAccount objects with a single call.

**Service:** *CostAccount Service* (on page 445)

Style: Document/literal wrapped

Input:

Message: CreateCostAccounts

Elements: CostAccount elements that contain ***CostAccount Fields*** (on page 448) fields

Required fields:

- ▶ Id
- ▶ Name

Output:

Message: CreateCostAccountsResponse

Output: Zero to many ObjectId elements

## **ReadCostAccounts Operation**

Description: Reads CostAccount objects from the database.

**Service: CostAccount Service (on page 445)**

Style: Document/literal wrapped

Input:

Message: ReadCostAccounts

Elements: One to many field names from the **CostAccount Fields** (on page 448) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadCostAccountsResponse

Output: Zero to many CostAccount elements that contain **CostAccount Fields** (on page 448) fields.

**UpdateCostAccounts Operation**

Description: Updates multiple CostAccount objects in the database. You can update up to 1000 CostAccount objects with a single call.

**Service: CostAccount Service (on page 445)**

Style: Document/literal wrapped

Input:

Message: UpdateCostAccounts

Elements: CostAccount elements that contain **CostAccount Fields** (on page 448) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateCostAccountsResponse

Output: boolean

**DeleteCostAccounts Operation**

Description: Deletes multiple CostAccount objects in the database. You can delete up to 1000 CostAccount objects with a single call.

**Service: CostAccount Service (on page 445)**

Style: Document/literal wrapped

Input:

Message: DeleteCostAccounts

Elements: One to many ObjectId DeleteWithReplacements

Output:

Message: DeleteCostAccountsResponse  
 Output: boolean

### GetFieldLengthCostAccount Operation

Description: Returns length of variable character fields for a BO.

**Service:** *CostAccount Service (on page 445)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthCostAccount  
 Elements: FieldLength

Output:

Message: GetFieldLengthCostAccountResponse  
 Elements: One to many FieldLengthCostAccounts.

### ReadCostAccountPath Operation

Description: Reads CostAccount objects from the database.

**Service:** *CostAccount Service (on page 445)*

Style: Document/literal wrapped

Input:

Message: ReadCostAccountPath  
 Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the **CostAccount Fields** (on page 448) field list.

Output:

Message: ReadCostAccountPathResponse  
 Output: Zero to many CostAccount elements that contain CostAccount fields.

### CostAccount Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this account was created.
CreateUser	string restricted to	X	X	The name of the user that created



	maxLength(255)			this account.
Description	string			The description of the cost account.
Id	string restricted to maxLength(40)		X	The short ID assigned to each cost account for identification. Each cost account is uniquely identified by concatenating its own ID together with its parents' IDs.
LastUpdate Date	dateTime	X	X	The date this account was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this account.
Name	string restricted to maxLength(100)		X	The name of the cost account.
ObjectId	int		X	The unique ID generated by the system.
ParentObjectId	int		X	The unique ID of the parent cost account of this cost account in the hierarchy.
SequenceNumber	int		X	The sequence number for sorting.

## Currency Service

### Operations:

- CreateCurrencies Operation** (on page 450)
- ReadCurrencies Operation** (on page 451)
- UpdateCurrencies Operation** (on page 451)
- DeleteCurrencies Operation** (on page 451)
- GetFieldLengthCurrency Operation** (on page 452)

### WSDL: Currency.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Currency/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/CurrencyService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/CurrencyService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.currency.CurrencyService`

### Description:

Currencies allow you to specify the types of currencies you want to use for costs. A currency type is set for every database. The user is able to specify the currency, its symbol, decimal symbol, number of decimal places, the positive and negative currency format and the digit grouping symbol.

## CreateCurrencies Operation

Description: Creates multiple Currency objects in the database. You can create up to 1000 Currency objects with a single call.

**Service:** *Currency Service (on page 450)*

Style: Document/literal wrapped

Input:

Message: CreateCurrencies

Elements: Currency elements that contain **Currency Fields** (on page 452) fields

Required fields:

- ▶ Name
- ▶ Id
- ▶ Symbol

Output:

Message: CreateCurrenciesResponse  
Output: Zero to many ObjectId elements

### ReadCurrencies Operation

Description: Reads Currency objects from the database.

**Service:** *Currency Service (on page 450)*

Style: Document/literal wrapped

Input:

Message: ReadCurrencies

Elements: One to many field names from the **Currency Fields** (on page 452) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadCurrenciesResponse

Output: Zero to many Currency elements that contain **Currency Fields** (on page 452) fields.

### UpdateCurrencies Operation

Description: Updates multiple Currency objects in the database. You can update up to 1000 Currency objects with a single call.

**Service:** *Currency Service (on page 450)*

Style: Document/literal wrapped

Input:

Message: UpdateCurrencies

Elements: Currency elements that contain **Currency Fields** (on page 452) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateCurrenciesResponse

Output: boolean

### DeleteCurrencies Operation

Description: Deletes multiple Currency objects in the database. You can delete up to 1000 Currency objects with a single call.

**Service: Currency Service (on page 450)**

Style: Document/literal wrapped

Input:

Message: DeleteCurrencies

Elements: One to many ObjectId elements

Output:

Message: DeleteCurrenciesResponse

Output: boolean

**GetFieldLengthCurrency Operation**

Description: Returns length of variable character fields for a BO.

**Service: Currency Service (on page 450)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthCurrency

Elements: FieldLength

Output:

Message: GetFieldLengthCurrencyResponse

Elements: One to many FieldLengthCurrencies.

**Currency Fields**

93802 Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this currency was created.

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CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this currency.
DecimalPlaces	int restricted to minInclusive(0) maxInclusive(2)		X	The number of decimal places displayed.

DecimalSymbol	string restricted to 'Period' 'Comma'		X	The decimal symbol displayed.
DigitGroupingSymbol	string restricted to 'Period' 'Comma'		X	The symbol used to group the numbers.

---

ExchangeRate	double restricted to minInclusive(1.0 E-6) maxInclusive(9.9 999999999999999 E8)		X	The exchange rate against the base currency.
Id	string restricted to maxLength(6)		X	The unique currency abbreviation for each currency.

IsBaseCurrency	boolean	X		The currency used to store cost in the Project Management database. The exchange rate for the base currency is always 1.0. The base currency ID, name, and symbol default to U.S. dollars and can be edited but never deleted.
LastUpdate Date	dateTime	X	X	The date this currency was last updated.



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LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this currency.
Name	string restricted to maxLength(80)		X	The name of the currency.

<p>NegativeSymbol</p>	<p>string restricted to '(#1.1)' '-#1.1' '#-1.1' '#1.1-' '(1.1#)' '-1.1#' '1.1-#' '1.1#-' '-1.1 #' '-# 1.1' '1.1 #-' '# 1.1-' '# -1.1' '1.1- #' '(# 1.1)' '(1.1 #)'</p>		<p>X</p>	<p>The symbol used to display a negative currency.</p>
<p>ObjectId</p>	<p>int</p>		<p>X</p>	<p>The unique ID generated by the system.</p>

PositiveSymbol	string restricted to '#1.1' '1.1#' '# 1.1' '1.1 #'		X	The symbol used to display a positive currency.
Symbol	string restricted to maxLength(3)		X	The currency symbol displayed.

## Document Service

### Operations:

- CreateDocuments Operation** (on page 460)
- ReadDocuments Operation** (on page 461)
- UpdateDocuments Operation** (on page 461)
- DeleteDocuments Operation** (on page 462)
- GetFieldLengthDocument Operation** (on page 462)
- ReadDocumentPath Operation** (on page 462)

### WSDL: Document.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Document/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/DocumentService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/DocumentService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.document.DocumentService`

### Description:

Documents are guidelines, procedures, standards, plans, design templates, worksheets, or other information related to a project. A document, or work product, can provide standards and guidelines for performing project work, or it can be formally identified as a project standard. Documents can be identified as project deliverables that will be given to the end user or customer at the end of the project. Documents can be uploaded, downloaded, checked in, and checked out. Documents can be assigned to activities and to work breakdown structure (WBS) elements. You can maintain general information about documents, such as revision date, location, and author. Documents are hierarchical objects.

The Document service uses MTOM (Message Transmission Optimization Mechanism) to send the files as attachments.

The Document service supports user defined fields (UDFs). Use the UDFValue service to assign UDFs.

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**Note:** This service provides create, read, update, and delete operations that apply to WP and Docs. You cannot assign external documents to an activity or WBS using this service.

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## CreateDocuments Operation

Description: Creates multiple Document objects in the database. You can create up to 1000 Document objects with a single call.

**Service: Document Service (on page 460)**

Style: Document/literal wrapped

Input:

Message: CreateDocuments

Elements: Document elements that contain **Document Fields** (on page 464) fields.

Required fields: The following fields are required when creating the Document object:

- ▶ Title
- ▶ ProjectObjectId

Output:

Message: CreateDocumentsResponse

Output: Zero to many ObjectId elements

**ReadDocuments Operation**

Description: Reads Document objects from the database.

**Service: Document Service (on page 460)**

Style: Document/literal wrapped

Input:

Message: ReadDocuments

Elements: One to many field names from the **Document Fields** (on page 464) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadDocumentsResponse

Output: Zero to many Document elements that contain Document fields.

**UpdateDocuments Operation**

Description: Updates multiple Document objects in the database. You can update up to 1000 Document objects with a single call.

**Service: Document Service (on page 460)**

Style: Document/literal wrapped

Input:

Message: UpdateDocuments

Elements: Document elements that contain **Document Fields** (on page 464) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateDocumentsResponse

Output: boolean

### DeleteDocuments Operation

Description: Deletes multiple Document objects in the database. You can delete up to 1000 Document objects with a single call.

**Service:** *Document Service (on page 460)*

Style: Document/literal wrapped

Input:

Message: DeleteDocuments

Elements: One to many ObjectId elements

Output:

Message: DeleteDocumentsResponse

Output: boolean

### GetFieldLengthDocument Operation

Description: Returns length of variable character fields for a BO.

**Service:** *Document Service (on page 460)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthDocument

Elements: FieldLength

Output:

Message: GetFieldLengthDocumentResponse

Elements: One to many FieldLengthDocuments.

### ReadDocumentPath Operation

Description: Reads Document objects from the database.

**Service:** *Document Service (on page 460)*

Style: Document/literal wrapped

Input:

Message: ReadDocumentPath

Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the **Document Fields** (on page 464) field list.

Output:

Message: ReadDocumentPathResponse

Output: Zero to many Document elements that contain Document fields.

### UploadDocument Operation

Description: Uploads a Document object to the database. When you upload a document to the database, you must attach the files to the message.

**Service:** *Document Service* (on page 460)

Style: Document/literal wrapped

Input:

Message: UploadDocuments

Elements: Document elements that contain **Document Fields** (on page 464) fields.

Required fields: The following fields are required when creating the Document object:

- ▶ ProjectObjectId

Output:

Message: UploadDocumentResponse

Output: Zero to one ObjectId elements.

### DownloadDocument Operation

Description: Downloads a Document object from the database.

**Service:** *Document Service* (on page 460)

Style: Document/literal wrapped

Input:

Message: DownloadDocuments

Elements: Document elements that contain **Document Fields** (on page 464) fields.

Required fields: The following fields are required when download the Document object:

- ▶ DocumentObjectId

Output:

Message: DownloadDocumentsResponse

Output: Zero to one ObjectId elements.

## CheckinDocument Operation

Description: Checks in a Document object in the database.

**Service:** *Document Service* (on page 460)

Style: Document/literal wrapped

Input:

Message: CheckinDocuments

Elements: Document elements that contain **Document Fields** (on page 464) fields.

Required fields: The following fields are required when checking in the Document object:

- ▶ DocumentObjectId

Output:

Message: CheckinDocumentsResponse

Output: Zero to one ObjectId elements

## CheckoutDocument Operation

Description: Checks out a Document object in the database.

**Service:** *Document Service* (on page 460)

Style: Document/literal wrapped

Input:

Message: CheckoutDocuments

Elements: Document elements that contain **Document Fields** (on page 464) fields.

Required fields: The following fields are required when checking out the Document object:

- ▶ DocumentObjectId

Output:

Message: CheckoutDocumentsResponse

Output: Zero to one ObjectId elements.

## Document Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityObjectI	int		X	The activity to which the document is assigned.



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Author	string restricted to maxLength(255)		X	The person who created the work product or document.
Comments	string			The check in comments for the document.
ContentRepositoryDocumentInternalId	string restricted to maxLength(4000)		X	The internal ID of the content repository document.
CreateDate	dateTime	X	X	The date this document was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this document.
Deliverable	boolean		X	The flag that indicates that the work product or document is a project deliverable.
Description	string			The narrative description of the work product or document.
DocumentCategoryName	string restricted to maxLength(100)	X	X	The name of the associated document category.
DocumentCategoryId	int		X	The unique ID of the associated document category.
DocumentObjectId	int			The unique ID of the associated document.
DocumentStatusCodeName	string restricted to maxLength(36)	X	X	The name of the associated document status code.
DocumentStatusCodeObjectId	int		X	The unique ID of the associated document status code.

DocumentStatusName	string restricted to " 'Not Started' 'Under Review' 'In Progress' 'Completed' 'On Hold'			The description of the document status type.
DocumentType	string restricted to 'Non-Collaboration Document' 'Collaboration Document' 'Repository Document'		X	The type of document: 'Non-Collaboration' or 'Collaboration'.
GUID	string restricted to pattern '\{[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}\}'		X	The globally unique ID generated by the system.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this document was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this document.
ObjectId	int		X	The unique ID generated by the system.
Owner	string			The User Name of the owner of the document.
ParentObjectId	int		X	The unique ID of the parent document of this document in the hierarchy.

PrivateLocation	string restricted to maxLength(255)		X	The work product or document's private file location.
ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the project.
ProjectIdName	string			The Project ID and Project Name of the associated project.
ProjectObjectId	int		X	The unique ID of the associated project.
PublicLocation	string restricted to maxLength(255)		X	The work product or document's publicly-accessible file location.
ReferenceNumber	string restricted to maxLength(32)		X	The work product or document's reference or catalog number.
ResourceId	string restricted to maxLength(20)	X	X	The short code that uniquely identifies the associated resource.
ResourceName	string restricted to maxLength(100)	X	X	The name of the associated resource.
ResourceObjectId	int		X	The unique ID of the associated resource.
ReviewStatus	string restricted to 'In Review' 'Approved' 'Rejected'			The review status of the document.
RevisionDate	dateTime		X	The date of the work product or document's last update.

SecurityPolicy	string restricted to 'Personal' 'Read Only' 'Shared'			The security policy associated with the document. determines whether the document is Personal, Read Only, or Shared.
SequenceNumber	int		X	The sequence number for sorting.
Size	string	X		The document size in bytes.
Title	string restricted to maxLength(120)		X	The title or name of a project work product or document.
Version	string restricted to maxLength(20)		X	The work product or document's version number.

## FinancialPeriod Service

### Operations:

**CreateFinancialPeriods Operation** (on page 469)

**ReadFinancialPeriods Operation** (on page 469)

**UpdateFinancialPeriods Operation** (on page 470)

**DeleteFinancialPeriods Operation** (on page 470)

**GetFieldLengthFinancialPeriod Operation** (on page 471)

### WSDL: FinancialPeriod.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/FinancialPeriod/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/FinancialPeriodService?wsdl>

<https://<hostname>:<port number>/p6ws/services/FinancialPeriodService?wsdl>

### Java Client Stub Class:

com.primavera.ws.p6.financialperiod.FinancialPeriodService

**Description:**

Use customized financial periods to provide accurate display and reporting of actual units and costs. Rather than spreading costs evenly throughout the length of a project, users can view how actual costs were incurred by defining customized financial periods with a StartDate and EndDate. The minimum financial period duration is one day. Financial periods cannot overlap each other and do not have to be contiguous.

Past period actuals are stored at the activity and resource/role assignment level using the ActivityPeriodActual and ResourceAssignmentPeriodActual services.

You can not delete a financial period if there are existing activity or resource assignment period actual values stored. To delete a financial period with stored actual values, first use the ReadResourceAssignmentPeriodActuals operation of the ResourceAssignmentPeriodActual Service to load all resource assignment period actuals for that financial period, then delete each instance. Repeat the process for activity period actuals using the ReadActivityPeriodActuals operation of the ActivityPeriodActual Service.

**CreateFinancialPeriods Operation**

Description: Creates multiple FinancialPeriod objects in the database. You can create up to 1000 FinancialPeriod objects with a single call.

**Service:** *FinancialPeriod Service (on page 468)*

Style: Document/literal wrapped

Input:

Message: CreateFinancialPeriods

Elements: FinancialPeriod elements that contain **FinancialPeriod Fields** (on page 471) fields

Required fields: The following fields are required when creating the FinancialPeriod object:

- ▶ StartDate
- ▶ EndDate
- ▶ Name

Output:

Message: CreateFinancialPeriodsResponse

Output: Zero to many ObjectID elements

**ReadFinancialPeriods Operation**

Description: Reads FinancialPeriod objects from the database.

**Service:** *FinancialPeriod Service (on page 468)*

Style: Document/literal wrapped

Input:

Message: ReadFinancialPeriods

Elements: One to many field names from the **FinancialPeriod Fields** (on page 471) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadFinancialPeriodsResponse

Output: Zero to many FinancialPeriod elements that contain **FinancialPeriod Fields** (on page 471) fields.

### UpdateFinancialPeriods Operation

Description: Updates multiple FinancialPeriod objects in the database. You can update up to 1000 FinancialPeriod objects with a single call.

**Service:** *FinancialPeriod Service* (on page 468)

Style: Document/literal wrapped

Input:

Message: UpdateFinancialPeriods

Elements: FinancialPeriod elements that contain **FinancialPeriod Fields** (on page 471) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateFinancialPeriodsResponse

Output: boolean

### DeleteFinancialPeriods Operation

Description: Deletes multiple FinancialPeriod objects in the database. You can delete up to 1000 FinancialPeriod objects with a single call.

**Service:** *FinancialPeriod Service* (on page 468)

Style: Document/literal wrapped

Input:

Message: DeleteFinancialPeriods

Elements: One to many ObjectId elements

Output:

Message: DeleteFinancialPeriodsResponse

Output: boolean

## GetFieldLengthFinancialPeriod Operation

Description: Returns length of variable character fields for a BO.

**Service:** *FinancialPeriod Service (on page 468)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthFinancialPeriod

Elements: FieldLength

Output:

Message: GetFieldLengthFinancialPeriodResponse

Elements: One to many FieldLengthFinanicalPeriods.

## FinancialPeriod Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this financial period was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this financial period.
EndDate	dateTime		X	The end date of the period.
FinancialPeriodTmpId	int		X	The unique identifier of the financial period calendar to which the period belongs.
LastUpdate Date	dateTime	X	X	The date this financial period was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this financial period.
Name	string		X	The name of the

	restricted to maxLength(60)			financial period.
ObjectId	int		X	The unique ID generated by the system.
StartDate	dateTime		X	The start date of the period

## FinancialPeriodTemplate Service

### Operations:

**CreateFinancialPeriodTemplates Operation** (on page 473)

**ReadFinancialPeriodTemplates Operation** (on page 473)

**UpdateFinancialPeriodTemplates Operation** (on page 474)

**DeleteFinancialPeriodTemplates Operation** (on page 474)

**GetFieldLengthFinancialPeriodTemplate Operation** (on page 474)

### WSDL: FinancialPeriod.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/FinancialPeriodTemplate/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/FinancialPeriodTemplateService?wsdl>

<https://<hostname>:<port number>/p6ws/services/FinancialPeriodTemplateService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.financialperiod.FinancialPeriodTemplateService`

### Description:

Use customized financial period calendars to measure and compare financial data when projects have different financial periods. You can create multiple financial period calendars using different periods and different period lengths.

Past period actuals are stored at the activity and resource/role assignment level using the ActivityPeriodActual and ResourceAssignmentPeriodActual services.



You can not delete a financial period calendar if there are existing activity or resource assignment period actual values stored for a project using the calendar. To delete a financial period calendar with stored actual values, first use the ReadResourceAssignmentPeriodActuals operation of the ResourceAssignmentPeriodActual Service to load all resource assignment period actuals for that financial period, then delete each instance. Repeat the process for activity period actuals using the ReadActivityPeriodActuals operation of the ActivityPeriodActual Service. Then delete the relevant financial period calendar using the DeleteFinancialPeriodTemplate operation of the FinancialPeriodTemplate service.

### CreateFinancialPeriodTemplates Operation

Description: Creates multiple FinancialPeriodTemplate objects in the database. You can create up to 20 FinancialPeriod objects with a single call.

**Service:** *FinancialPeriodTemplate Service (on page 472)*

Style: Document/literal wrapped

Input:

Message: CreateFinancialPeriodTemplates

Elements: FinancialPeriodTemplate elements that contain **FinancialPeriodTemplate Fields** (on page 475) fields

Required fields: The following fields are required when creating the FinancialPeriodTemplate object:

- ▶ FinancialPeriodTemplateName

Output:

Message: CreateFinancialPeriodTemplatesResponse

Output: Zero to many ObjectId elements

### ReadFinancialPeriodTemplates Operation

Description: Reads FinancialPeriodTemplate objects from the database.

**Service:** *FinancialPeriodTemplate Service (on page 472)*

Style: Document/literal wrapped

Input:

Message: ReadFinancialPeriodTemplates

Elements: One to many field names from the **FinancialPeriodTemplate Fields** (on page 475) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadFinancialPeriodTemplatesResponse

Output: Zero to many FinancialPeriodTemplate elements that contain **FinancialPeriodTemplate Fields** (on page 475) fields.

### UpdateFinancialPeriodTemplates Operation

Description: Updates multiple FinancialPeriodTemplate objects in the database. You can update up to 20 FinancialPeriodTempate objects with a single call.

**Service:** *FinancialPeriodTemplate Service* (on page 472)

Style: Document/literal wrapped

Input:

Message: UpdateFinancialPeriodTemplates

Elements: FinancialPeriodTemplate elements that contain **FinancialPeriodTemplate Fields** (on page 475) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateFinancialPeriodTemplatesResponse

Output: boolean

### DeleteFinancialPeriodTemplates Operation

Description: Deletes multiple FinancialPeriodTemplate objects in the database. You can delete up to 20 FinancialPeriodTemplate objects with a single call.

**Service:** *FinancialPeriodTemplate Service* (on page 472)

Style: Document/literal wrapped

Input:

Message: DeleteFinancialPeriodTemplates

Elements: One to many ObjectId elements

Output:

Message: DeleteFinancialPeriodTemplatesResponse

Output: boolean

### GetFieldLengthFinancialPeriodTemplate Operation

Description: Returns length of variable character fields for a BO.

**Service:** *FinancialPeriodTemplate Service* (on page 472)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthFinancialPeriodTemplates

Elements: FieldLength

Output:

Message: GetFieldLengthFinancialPeriodTemplateResponse

Elements: One to many FieldLengthFinancialPeriodTemplates.

### FinancialPeriodTemplate Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this financial period template was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this financial period template.
DefaultFlag	boolean			The flag that marks this financial period calendar as the default calendar to use for new projects and imported projects without a financial period calendar.
FinancialPeriodTemplateName	string restricted to maxLength(255)		X	The name of the financial period calendar.
IsShortFinancialPeriod	boolean	X		The flag that shows the financial period is shorter than seven days.
LastUpdateDate	dateTime	X	X	The date this financial period calendar was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this

	55)			financial period calendar.
ObjectId	int	X		The unique ID generated by the system.
UsedByCount	dateTime	X		The number of projects assigned this financial period calendar.

## FundingSource Service

### Operations:

**CreateFundingSources Operation** (on page 476)

**ReadFundingSources Operation** (on page 477)

**UpdateFundingSources Operation** (on page 477)

**DeleteFundingSources Operation** (on page 478)

**GetFieldLengthFundingSource Operation** (on page 478)

**ReadFundingSourcePath Operation** (on page 478)

### WSDL: FundingSource.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/FundingSource/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/FundingSourceService?wsdl>

<https://<hostname>:<port number>/p6ws/services/FundingSourceService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.fundingsource.FundingSourceService`

### Description:

Funding sources are hierarchical objects used to specify the names and descriptions of nonprofit, government-allocated, or other funding sources. You can assign funding sources to budgets as you develop projects.

## CreateFundingSources Operation

Description: Creates multiple FundingSource objects in the database. You can create up to 1000 FundingSource objects with a single call.

**Service: *FundingSource Service (on page 476)***

Style: Document/literal wrapped

Input:

Message: CreateFundingSources

Elements: FundingSource elements that contain ***FundingSource Fields*** (on page 479) fields

Required fields: You must supply the Name field.

Output:

Message: CreateFundingSourcesResponse

Output: Zero to many ObjectId elements

**ReadFundingSources Operation**

Description: Reads FundingSource objects from the database.

**Service: *FundingSource Service (on page 476)***

Style: Document/literal wrapped

Input:

Message: ReadFundingSources

Elements: One to many field names from the ***FundingSource Fields*** (on page 479) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadFundingSourcesResponse

Output: Zero to many FundingSource elements that contain ***FundingSource Fields*** (on page 479) fields.

**UpdateFundingSources Operation**

Description: Updates multiple FundingSource objects in the database. You can update up to 1000 FundingSource objects with a single call.

**Service: *FundingSource Service (on page 476)***

Style: Document/literal wrapped

Input:

Message: UpdateFundingSources

Elements: FundingSource elements that contain ***FundingSource Fields*** (on page 479) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateFundingSourcesResponse

Output: boolean

### DeleteFundingSources Operation

Description: Deletes multiple FundingSource objects in the database. You can delete up to 1000 FundingSource objects with a single call.

**Service:** *FundingSource Service (on page 476)*

Style: Document/literal wrapped

Input:

Message: DeleteFundingSources

Elements: One to many ObjectId DeleteWithReplacements

Output:

Message: DeleteFundingSourcesResponse

Output: boolean

### GetFieldLengthFundingSource Operation

Description: Returns length of variable character fields for a BO.

**Service:** *FundingSource Service (on page 476)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthFundingSource

Elements: FieldLength

Output:

Message: GetFieldLengthFundingSourceResponse

Elements: One to many FieldLengthFundingSources.

### ReadFundingSourcePath Operation

Description: Reads FundingSource objects from the database.

**Service:** *FundingSource Service (on page 476)*

Style: Document/literal wrapped

Input:

Message: ReadFundingSourcePath

Elements:

- ▶ One to many ObjectID elements
- ▶ One to many field names from the **FundingSource Fields** (on page 479) field list.

Output:

Message: ReadFundingSourcePathResponse

Output: Zero to many FundingSource elements that contain FundingSource fields.

### FundingSource Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this funding source was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this funding source.
Description	string			The description of the funding source.
LastUpdate Date	dateTime	X	X	The date this funding source was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this funding source.
Name	string restricted to maxLength(100)		X	The name of the funding source.
ObjectID	int		X	The unique ID generated by the system.
ParentObjectID	int		X	The unique ID of the parent funding source of this funding source in the hierarchy.

Sequence Number	int		X	The sequence number for sorting.
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## GlobalPreferences Service

### Operations:

**ReadGlobalPreferences Operation** (on page 480)

**UpdateGlobalPreferences Operation** (on page 481)

**GetFieldLengthGlobalPreferences Operation** (on page 481)

### WSDL: GlobalPreferences.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/GlobalPreferences/V2>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/GlobalPreferencesService?wsdl>

<https://<hostname>:<port number>/p6ws/services/GlobalPreferencesService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.globalpreferences.GlobalPreferencesService`

### Description:

Global preferences are generally established by an administrator. There is only one global preferences object in the database and it cannot be deleted.

## ReadGlobalPreferences Operation

Description: Reads GlobalPreferences objects from the database.

**Service:** *GlobalPreferences Service* (on page 480)

Style: Document/literal wrapped

Input:

Message: ReadGlobalPreferences

Elements: One to many field names from the **GlobalPreferences Fields** (on page 482) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.



**Output:**

Message: ReadGlobalPreferencesResponse

Output: Zero to many GlobalPreferences elements that contain **GlobalPreferences Fields** (on page 482) fields.

**UpdateGlobalPreferences Operation**

Description: Updates multiple GlobalPreferences objects in the database. You can update up to 1000 GlobalPreferences objects with a single call.

**Service:** *GlobalPreferences Service (on page 480)*

Style: Document/literal wrapped

**Input:**

Message: UpdateGlobalPreferences

Elements: GlobalPreferences elements that contain **GlobalPreferences Fields** (on page 482) fields.

Required fields: The ObjectId must be specified.

**Output:**

Message: UpdateGlobalPreferencesResponse

Output: boolean

**GetFieldLengthGlobalPreferences Operation**

Description: Returns length of variable character fields for a BO.

**Service:** *GlobalPreferences Service (on page 480)*

Style: Document/literal wrapped

**Input:**

Message: GetFieldLengthGlobalPreferences

Element:

Field	Type	Description
Field	string	The variable character field.

**Output:**

Message: GetFieldLengthGlobalPreferencesResponse

Element: Return

Output: int

### GlobalPreferences Fields

Field	Type	Read Only	Filterable Orderable	Description
AllowApprovedTSRejection	boolean			The flag indicating the status of the Prevent users from rejecting approved timesheets setting on the Timesheets page of Application Settings.
AlwaysLaunchOnlineHelp	boolean			The flag indicating that Online Help should be launched whenever a user accesses help.
BaseCurrencyObjectId	int			The unique ID of the currency.
CreateDate	dateTime	X		The date this global preferences was created.
CreateUser	string restricted to maxLength(255)	X		The name of the user that created this global preferences.
CustomLabel1	string restricted to maxLength(255)			The custom (user-defined) text that will be inserted into any report containing the Custom Label 1 global variable text cell, when printed.
CustomLabel2	string restricted to maxLength(255)			The custom (user-defined) text that will be inserted into any report containing the Custom Label 2 global variable text cell, when printed.
CustomLabel3	string restricted to maxLength(255)			the custom (user-defined) text that will be inserted into any report containing the Custom Label 3 global variable text cell, when printed.

DayAbbreviation	string restricted to maxLength(4)			The abbreviation character for time periods of days. This abbreviation is used for displaying time units and durations in the user's selected display formats.
DefaultDuration	double restricted to minInclusive(0.0)			The planned duration assigned to new activities by default.
DefaultTimesheetApprovalManager	int			The unique ID of the resource manager assigned to approve timesheets for new resources by default.
EnableWhatsNewDialog	boolean			The flag indicating the status of the Display What's New Dialog option on the General page of Application Settings.
EPPMConsentMessage	string			The text of the consent message shown to EPPM users.
EPPMEnableConsent	string			A comma separated list of integers representing the types of consent enabled in P6 EPPM. 1 = Login page consent 2 = Add user consent 3 = Add resource consent 4 = Add module consent 5 = Download consent 7 = Visualizer consent
EVEstimateToCompleteFactor	double restricted to minInclusive(0.0)			The user-defined performance factor, PF, for computing earned-value estimate-to-complete. ETC is computed as $PF * (BAC - \text{earned value})$ . This value is assigned to new projects by default. It can be modified for each project WBS element.
EVEstimateToCompleteTechnique	string restricted to "			The technique for computing earned-value estimate-to-complete. This setting

	'ETC = Remaining Cost for Activity' 'PF = 1' 'PF = Custom Value' 'PF = 1 / CPI' 'PF = 1 / (CPI * SPI)'			is assigned to new projects by default. It can be modified for each project WBS element.
EVPerformancePctCompleteCustomPct	double			The user-defined percent complete for computing earned value for activities within the WBS. A value of, say, 25 means that 25% of the planned amount is earned when the activity is started and the remainder is earned when the activity is completed. This value is assigned to new projects by default. It can be modified for each project WBS element.
EVPerformancePctCompleteTechnique	string restricted to " 'Activity Percent Complete' '0 / 100' '50 / 50' 'Custom Percent Complete' 'WBS Milestones Percent Complete' 'Activity Percent Complete Using Resource Curves'			The technique used for computing earned-value percent complete. This setting is assigned to new projects by default. It can be modified for each project WBS element.

EarnedValueCalculation	string restricted to 'At Completion Values with Current Dates' 'Planned Values with Planned Dates' 'Planned Values with Current Dates'			The flag indicating which values to use when calculating earned value when using a primary baseline. Valid values are 'At Completion Values with Current Dates', 'Planned Values with Planned Dates', and 'Planned Values with Current Dates'.
EmailNotifyTSRejection	boolean			The flag that indicates the status of the 'Enable email notifications' option in the Timesheets page of Application Settings.
EnablePasswordPolicy	boolean			The flag that indicates whether the password policy is enforced.
EnableTSAudit	boolean			The flag indicating whether to track timesheet submission, approval, and rejection. When you set this option, the application saves each user who reviews a timesheet, and when the timesheet was reviewed. This information can be viewed by loading TimesheetAudit business objects.
EnableWebServicesIPCheck	boolean			The flag indicating whether to allow web services to access P6. If this flag is set to on, the IP addresses for the services allowed must be specified with IPSiteList.
FooterLabel1	string restricted to maxLength(255)			the first footer for reports. The Project Management application allows up to three different footer text strings that can be optionally placed at the bottom of all reports using the report writer.

FooterLabel2	string restricted to maxLength( 255)			the second footer for reports. The Project Management application allows up to three different footer text strings that can be optionally placed at the bottom of all reports using the report writer.
FooterLabel3	string restricted to maxLength( 255)			the third footer for reports. The Project Management application allows up to three different footer text strings that can be optionally placed at the bottom of all reports using the report writer.
GatewayApiUrl	string			The Primavera Gateway URL that will allow you to integrate other products with P6 and P6 Professional.
GatewayExportERP SyncName	string			The synchronization for exporting to ERP.
GatewayExportUnifi erSyncName	string			The synchronization for exporting to Primavera Unifier.
GatewayImportERP SyncName	string			The synchronization for importing to ERP.
GatewayImportUnifi erSyncName	string			The synchronization for importing to Primavera Unifier.
GatewayP6Deploy mentName	string			The name for the P6 deployment to be integrated with Primavera Gateway.
GatewayPassword	string			The password for integration.
GatewayUnifierEna bled	boolean			This is the flag to enable Unifier through Gateway.
GatewayUsername	string			The username for integration.

HeaderLabel1	string restricted to maxLength( 255)			the first header for reports. The Project Management application allows up to three different header text strings that can be optionally placed at the top of all reports using the report writer.
HeaderLabel2	string restricted to maxLength( 255)			the second header for reports. The Project Management application allows up to three different header text strings that can be optionally placed at the top of all reports using the report writer.
HeaderLabel3	string restricted to maxLength( 255)			the third header for reports. The Project Management application allows up to three different header text strings that can be optionally placed at the top of all reports using the report writer.
HourAbbreviation	string restricted to maxLength( 4)			The abbreviation character for time periods of hours. This abbreviation is used for displaying time units and durations in the user's selected display formats.
HoursPerDay	double restricted to minInclusiv e(1.0) maxInclusiv e(24.0)			The number of work hours per day. This conversion factor is used for displaying time units and durations in the user's selected display formats.
HoursPerMonth	double restricted to minInclusiv e(1.0) maxInclusiv e(744.0)			The number of work hours per month. This conversion factor is used for displaying time units and durations in the user's selected display formats.
HoursPerWeek	double restricted to minInclusiv e(1.0) maxInclusiv e(168.0)			The number of work hours per week. This conversion factor is used for displaying time units and durations in the user's selected display formats.

HoursPerYear	double restricted to minInclusive(1.0) maxInclusive(8784.0)			The number of work hours per year. This conversion factor is used for displaying time units and durations in the user's selected display formats.
LastUpdateDate	dateTime	X		The date this global preferences was last updated.
LastUpdateUser	string restricted to maxLength(255)	X		The name of the user that last updated this global preferences.
LogHoursAfterActualFinish	boolean			The flag that indicates whether timesheet application users are allowed to log timesheet hours on activities for dates after the activities' actual finish dates.
LogHoursBeforeActualStart	boolean			The flag that indicates whether timesheet application users are allowed to log timesheet hours on activities for dates prior to the activities' actual start dates.
LogHoursCompletedActivities	boolean			The flag that indicates whether timesheet application users are allowed to log timesheet hours on activities that are already marked as completed.
LogHoursInFuture	boolean			The flag that indicates whether the user can log hours in the future.
LogHoursNotStartedActivities	boolean			The flag that indicates whether timesheet application users are allowed to log timesheet hours on activities that are still marked as Not started.
MaxActivityCodeTreeLevels	int restricted to minInclusive(1)			The maximum number of levels that can be created in activity code hierarchies in the Project Management application. The API



	maxInclusive(25)			ignores this setting when creating activity codes.
MaxActivityCodesPerProject	int			The maximum number of project-level activity user codes that can be created per project.
MaxActivityIdLength	int restricted to minInclusive(1) maxInclusive(40)			The maximum number of characters allowed for activity IDs.
MaxAssignmentCodeTreeLevelCnt	int restricted to minInclusive(1) maxInclusive(25)			The maximum number of levels that can be created in assignment code hierarchies in the Project Management application.
MaxBaselinesPerProject	int restricted to minInclusive(1)			The maximum number of baselines that can be created per project.
MaxCostAccountLength	int restricted to minInclusive(1) maxInclusive(40)			The maximum number of characters allowed for cost account IDs (at each level in the cost account tree).
MaxCostAccountTreeLevels	int restricted to minInclusive(1) maxInclusive(25)			The maximum number of levels that can be created in the cost account hierarchy in the Project Management application. The API ignores this setting when creating cost accounts.
MaxFPCalendarCou	int restricted to	X		The maximum number of financial period calendars that can be

nt	minInclusive(1) maxInclusive(20)			created.
MaxOBSTreeLevels	int restricted to minInclusive(1) maxInclusive(25)			The maximum number of levels that can be created in OBS hierarchies in the Project Management application. The API ignores this setting when creating OBS objects.
MaxProjectCodeTreeLevels	int restricted to minInclusive(1) maxInclusive(25)			The maximum number of levels in the project category hierarchy in the Project Management application. The API ignores this setting when creating project codes.
MaxProjectIdLength	int restricted to minInclusive(1) maxInclusive(40)			The maximum number characters allowed for project IDs.
MaxResourceCodeTreeLevels	int restricted to minInclusive(1) maxInclusive(25)			The maximum number of levels in the resource code hierarchy in the Project Management application. The API ignores this setting when creating resource codes.
MaxResourceIdLength	int restricted to minInclusive(1) maxInclusive(255)			The maximum number of characters allowed for resource IDs (at each level in the resource tree).
MaxResourceTreeLevels	int restricted to minInclusive(1)			The maximum number of levels that can be created in the resource hierarchy.

	maxInclusive(25)			
MaxRoleCodeTreeLevelCnt	int restricted to minInclusive(1) maxInclusive(25)			The maximum number of levels in the role code hierarchy in the Project Management application. The API ignores this setting when creating role codes.
MaxRoleIdLength	int restricted to minInclusive(1) maxInclusive(40)			The maximum number characters allowed for role IDs.
MaxRoleTreeLevels	int restricted to minInclusive(1) maxInclusive(25)			The maximum number of levels in the role hierarchy in the Project Management application. The API ignores this setting when creating roles.
MaxTimesheetResourceHours	double restricted to minInclusive(1.0) maxInclusive(24.0)			The maximum hours a resource can enter per day for all of their assigned activities.
MaxWBSCodeLength	int restricted to minInclusive(1) maxInclusive(40)			The maximum number of characters allowed for WBS codes (at each level in the WBS tree).
MaxWBSTreeLevels	int restricted to minInclusive(1) maxInclusive(50)			The maximum number of levels that can be created in WBS hierarchies.

MaximumBaselinesCopiedWithProject	int restricted to minInclusive(1) maxInclusive(50)			The number of baseline projects that can be copied with a project.
MinuteAbbreviation	string restricted to maxLength(4)			The abbreviation character for time periods of minutes. This abbreviation is used for displaying time units and durations in the user's selected display formats.
MonthAbbreviation	string restricted to maxLength(4)			The abbreviation character for time periods of months. This abbreviation is used for displaying time units and durations in the user's selected display formats.
NumberOfAccessibleFutureTimesheets	int restricted to minInclusive(0) maxInclusive(200)			The number of future timesheets that timesheet application users are allowed to access.
NumberOfAccessiblePastTimesheets	int restricted to minInclusive(0) maxInclusive(200)			The number of past timesheets that can be accessed.
PrivateIPAllowList	string			The list of IP addresses that will be allowed access to Web Services.
ResourcesCanAssignThemselvesToActivities	boolean		X	The flag that indicates whether timesheet application users are allowed to assign themselves to activities in this project.
ResourcesCanAssignThemselvesToActivities	boolean		X	The flag that indicates whether timesheet application users are

vitiesOutsideOBSAccess				allowed to assign themselves to activities in this project even if the resource does not have access to the relevant OBS for the activity.
StartDayOfWeek	int restricted to minInclusive(1) maxInclusive(7)			The starting day of the week as displayed in all calendars.
SummarizeByCalendar	boolean			The flag indicating whether to summarize by calendar .
SummarizeByFinancialPeriods	boolean			The flag indicating whether to summarize the EPS, project or WBS by financial periods.
SummaryResourceSpreadInterval	string restricted to 'Month' 'Week'			The interval in which resource and role level spreads are summarized and stored. Valid values are 'Month' and 'Week'. This setting is used by the Summarizer job service.
SummaryWBSSpreadInterval	string restricted to 'Month' 'Week'			The interval in which WBS level spreads are summarized and stored. Valid values are 'Month' and 'Week'. This setting is used by the Summarizer job service.
TeamMemberConsentMessage	string			The text of the consent message shown to Team Member users.
TeamMemberEnableConsent	string			A comma separated list of integers representing the types of consent enabled in P6 Team Member applications, including Team Member Web, P6 for Android, and P6 for iOS. 6 = Team Member consent
TimeWindowCompletedActivities	int			The time window (days) to access completed activities in the timesheet application, assigned to new resources by default.

TimeWindowNotStartedActivities	int			The time window (days) to access not started activities in the timesheet application, assigned to new resources by default.
TimesheetApprovalLevel	int			The number of approval levels required for timesheets (0, 1, or 2) before timesheets hours are applied to activities as actuals.
TimesheetDecimalDigits	int			The number of decimal digits for recording hours in timesheets.
TimesheetInterval	boolean			The flag that indicates whether timesheet application users enter timesheet hours daily or by entire timesheet reporting period.
TimesheetPeriodEndsOnDay	string restricted to 'Sunday' 'Monday' 'Tuesday' 'Wednesday' 'Thursday' 'Friday' 'Saturday'			The end day of time sheet period used in time sheet application. Valid values are: 'Sunday', 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday' and 'Saturday'.
TimesheetPeriodType	string restricted to 'Every Week' 'Every Two Weeks' 'Every Four Weeks' 'Every Month'			The time period used in time sheet application. Valid values are: 'Every Week', 'Every Two Weeks', 'Every Four Weeks' and 'Every Month'.
UnifierAuthCode				The Authentication Code for connecting P6 to Unifier.
UnifierCompanyShortName				The Company Short Name for connecting P6 to Unifier.

UnifierIntegrationPassword				The password defined in Unifier for integration with P6 via REST Web Services.
UnifierIntegrationUserName				The user name defined in Unifier for integration with P6 via REST Web Services.
UnifierWebServiceURL				The user name for integrating P6 with Unifier.
UseCalendarTimePeriodsFlag	boolean			The flag that indicates whether the system uses the hours per time period defined in the calendar. If this flag is true, the system uses the hours per time period settings that are defined in the calendar. If this flag is false, the system uses the hours per time period from the global preferences.
UseMaxTimesheetResourceHours	boolean			The flag indicating whether to restrict the number of hours a user can enter to the limit specified in MaxTimesheetResourceHours.
UseProjectManagerApproval	string restricted to maxLength(20)			The flag that indicates the approval sequence, if any, required for level 2 timesheet approvals. For example, project managers must approve before resource manager do, or vice versa.
UseTimesheets	boolean			The flag that indicates whether new resources use timesheets by default.
VersionForWhatsNew	string			Determines the version of What's New descriptions to be shown to users.
WBSCategoryLabel	string restricted to maxLength(40)			The dynamic label used for the WBS category. Project Planner allows the system administrator to dynamically label the WBS category.
WBSCodeSeparator	string restricted to maxLength(2)			The character used for separating code fields for the cost account tree. This is also the WBS code separator for new projects by default.

WeekAbbreviation	string restricted to maxLength(4)			The abbreviation character for time periods of weeks. This abbreviation is used for displaying time units and durations in the user's selected display formats.
YearAbbreviation	string restricted to maxLength(4)			The abbreviation character for time periods of years. This abbreviation is used for displaying time units and durations in the user's selected display formats.

## GlobalReplace Service

### Operations:

**ReadGlobalReplace Operation** (on page 497)

**UpdateGlobalReplace Operation** (on page 497)

**GetFieldLengthGlobalReplace Operation** (on page 497)

### WSDL: GlobalReplace.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/GlobalReplace/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/GlobalReplaceService?wsdl>

<https://<hostname>:<port number>/p6ws/services/GlobalReplaceService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.userfieldtitle.GlobalReplaceService`

### Description:

P6 provides a way to replace data in multiple activities, WBS elements, and projects. You can configure a Global Search & Replace template to determine the data which will be replaced.

You can create a template to filter the data to be changed and specify what changes to make. You can save templates to be used later, and modify or delete templates. You can apply the changes and review the data before committing to the change. At the review stage, you can exclude certain rows from being changed and modify data in one or more rows before applying the change.



## ReadGlobalReplace Operation

Description: Reads GlobalReplace objects from the database.

**Service:** *GlobalReplace Service* (on page 496)

Style: Document/literal wrapped

Input:

Message: ReadGlobalReplace

Elements: One to many field names from the GlobalReplace Fields field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadGlobalReplacesRespons

Output: Zero to many GlobalReplace elements that contain GlobalReplace fields

## UpdateGlobalReplace Operation

Description: Updates multiple GlobalReplace objects in the database. You can update up to 1000 GlobalReplace objects with a single call.

**Service:** *GlobalReplace Service* (on page 496)

Style: Document/literal wrapped

Input:

Message: UpdateGlobalReplace

Elements: One to many field names from the GlobalReplace Fields field list

Output:

Message: UpdateGlobalReplaceResponse

Output: boolean

## GetFieldLengthGlobalReplace Operation

Description: Returns length of variable character fields for a BO.

**Service:** *GlobalReplace Service* (on page 496)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthGlobalReplace

Elements: FieldLength

Output:

Message: GetFieldLengthGlobalReplaceResponse

Elements: One to many FieldLengthGlobalReplaces.

### GlobalReplace Fields

Field	Type	Read Only	Filterable Orderable	Description
AllProjects	boolean			The option used to set all of projects to which a user has access.
GReplaceData	string			The Global Replace template.
GReplaceName	string restricted to maxLength(255)		X	The Global Replace template name.
GReplaceObjectId	int		Filterable only	The unique id of the Global Replace template.
ProjectIdName	string			Project ids and names that are separated by commas.
ProjectIds	string			Project ids that are separated by commas.
ReplaceFieldName One	string			First field name the user has selected to replace.
SearchCriteria	type			The criteria that is used to search and load business objects.
SubjectAreaType	string restricted to maxLength(255)			The name of the object to be updated.

UserObjectType	int		X	The unique id of the associated user.
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## Location Service

### Operations:

- CreateLocations Operation** (on page 499)
- ReadLocations Operation** (on page 500)
- UpdateLocations Operation** (on page 500)
- DeleteLocations Operation** (on page 500)
- GetFieldLengthLocation Operation** (on page 501)

### WSDL: Location.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Location/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/LocationService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/LocationService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.location.LocationService`

### Description:

The location dictionary is used to store address locations including latitude and longitude. These locations can be assigned to resources, projects and/or activities.

## CreateLocations Operation

Description: Creates multiple Location objects in the database. You can create up to 1000 Location objects with a single call.

### Service: *Location Service* (on page 499)

Style: Document/literal wrapped

Input:

Message: CreateLocations

Elements: Location elements that contain **Location Fields** (on page 501) fields

Required fields: The following fields are required when creating the Location object:

- ▶ Name

- ▶ Latitude
- ▶ Longitude

Output:

Message: CreateLocationsResponse

Output: Zero to many ObjectIds

### ReadLocations Operation

Description: Reads Location objects from the database.

**Service:** *Location Service* (on page 499)

Style: Document/literal wrapped

Input:

Message: ReadLocations

Elements: One to many fields from the **Location Fields** (on page 501) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadLocationsResponse

Output: Zero to many Location elements that contain Location fields.

### UpdateLocations Operation

Description: Updates multiple Location objects in the database. You can update up to 1000 Location objects with a single call.

**Service:** *Location Service* (on page 499)

Style: Document/literal wrapped

Input:

Message: UpdateLocations

Elements: Location elements that contain **Location Fields** (on page 501) fields

Output:

Message: UpdateLocationsResponse

Output: boolean

### DeleteLocations Operation

Description: Deletes multiple Location objects in the database. You can delete up to 1000 Location objects with a single call.

**Service: Location Service (on page 499)**

Style: Document/literal wrapped

Input:

Message: DeleteLocations

Elements: One to many ObjectIds

Output:

Message: DeleteLocationsResponse

Output: boolean

**GetFieldLengthLocation Operation**

Description: Returns length of variable character fields for a BO.

**Service: Location Service (on page 499)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthLocation

Elements: FieldLength

Output:

Message: GetFieldLengthLocationResponse

Elements: One to many FieldLengthLocations.

**Location Fields**

Field	Type	Read Only	Filterable Orderable	Description
AddressLine 1	string restricted to maxLength(200)		X	The first line of the address with street number and street name.
AddressLine 2	string restricted to maxLength(200)		X	The second line of the address with street number and street name.
City	string restricted to maxLength(200)		X	The city name of the address.

Country	string restricted to maxLength(20 0)		X	The country of the address.
CountryCode	string restricted to maxLength(3)		X	The country code of the address.
CreateDate	dateTime	X	X	The creation date of the Location.
CreateUser	string	X	X	The name of the user that created this location.
LastUpdateDate	dateTime	X	X	The date this location was last updated.
LastUpdateUser	string	X	X	The name of the user that last updated this location.
Latitude	string restricted to maxLength(40 )		X	The latitude of the address.
Longitude	string restricted to maxLength(40 )		X	The longitude of the address.
Municipality	string restricted to maxLength(20 0)		X	The municipality name of the address.
Name	string restricted to maxLength(25 5)		X	The name of the location.
ObjectId	int		X	The unique ID of the location.
PostalCode	string		X	The postal code of

	restricted to maxLength(20 )			the address.
State	string restricted to maxLength(20 0)		X	The state name of the address.
StateCode	string restricted to maxLength(2)		X	The state abbreviation of the address.

## OBS Service

### Operations:

**CreateOBS Operation** (on page 504)

**ReadOBS Operation** (on page 504)

**UpdateOBS Operation** (on page 504)

**DeleteOBS Operation** (on page 505)

**GetFieldLengthOBS Operation** (on page 505)

**ReadOBSPath Operation** (on page 505)

### WSDL: OBS.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/OBS/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/OBSService?wsdl>

<https://<hostname>:<port number>/p6ws/services/OBSService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.obs.OBSService`

### Description:

The Organizational Breakdown Structure (OBS) is a hierarchical arrangement of an organization's management structure. User access and privileges to nodes and projects within the Enterprise Project Structure (EPS) hierarchy are implemented via a responsible manager defined in the enterprise-wide OBS hierarchy.

## CreateOBS Operation

Description: Creates multiple OBS objects in the database. You can create up to 1000 OBS objects with a single call.

**Service:** *OBS Service (on page 503)*

Style: Document/literal wrapped

Input:

Message: CreateOBS

Elements: OBS elements that contain **OBS Fields** (on page 506) fields.

Required fields: You must supply the Name field.

Output:

Message: CreateOBSResponse

Output: Zero to many ObjectID elements

## ReadOBS Operation

Description: Reads OBS objects from the database.

**Service:** *OBS Service (on page 503)*

Style: Document/literal wrapped

Input:

Message: ReadOBS

Elements: One to many field names from the **OBS Fields** (on page 506) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadOBSResponse

Output: Zero to many OBS elements that contain **OBS Fields** (on page 506) fields.

## UpdateOBS Operation

Description: Updates multiple OBS objects in the database. You can update up to 1000 OBS objects with a single call.

**Service:** *OBS Service (on page 503)*

Style: Document/literal wrapped

Input:

Message: UpdateOBS



Elements: OBS elements that contain **OBS Fields** (on page 506) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateOBSResponse

Output: boolean

### DeleteOBS Operation

Description: Deletes multiple OBS objects in the database. You can delete up to 1000 OBS objects with a single call.

**Service:** *OBS Service (on page 503)*

Style: Document/literal wrapped

Input:

Message: DeleteOBS

Elements: One to many ObjectId elements.

You can also optionally specify one to many DeleteWithReplacement elements that contain ObjectId and ReplacementObjectId elements

Output:

Message: DeleteOBSResponse

Output: boolean

### GetFieldLengthOBS Operation

Description: Returns length of variable character fields for a BO.

**Service:** *OBS Service (on page 503)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthOBS

Elements: FieldLength

Output:

Message: GetFieldLengthOBSResponse

Elements: One to many FieldLengthOBSs.

### ReadOBSPATH Operation

Description: Returns an OBS element and all of its ancestor elements to provide hierarchical information about the OBS object.

**Service: OBS Service (on page 503)**

Style: Document/literal wrapped

Input:

Message: ReadOBSPath

Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the **OBS Fields** (on page 506) field list.

Output:

Message: ReadOBSPathResponse

Output: Zero to many OBS elements that contain OBS fields. Returns the OBS element that you specify and all of its ancestor elements.

**OBS Fields**

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this OBS was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this OBS.
Description	string			The description of the person/role in the organization.
GUID	string restricted to pattern '\\{[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}\\}'		X	The globally unique ID generated by the system.
LastUpdateDate	dateTime	X	X	The date this OBS was last updated.
LastUpdate	string	X	X	The name of

teUser	restricted to maxLength(255)			the user that last updated this OBS.
Name	string restricted to maxLength(100)		X	The name of the person/role in the organization, sometimes referred to elsewhere as the "responsible manager".
ObjectId	int		X	The unique ID generated by the system.
ParentOb jectId	int		X	The unique ID of the parent OBS of this OBS in the hierarchy.
Sequenc eNumber	int		X	The sequence number for sorting.

## ProjectDocument Service

### Operations:

**CreateProjectDocuments Operation** (on page 508)

**ReadProjectDocuments Operation** (on page 508)

**UpdateProjectDocuments Operation** (on page 509)

**DeleteProjectDocuments Operation** (on page 509)

**GetFieldLengthProjectDocument Operation** (on page 510)

### WSDL: ProjectDocument.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectDocument/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/ProjectDocumentService?wsdl  
https://<hostname>:<port number>/p6ws/services/ProjectDocumentService?wsdl

**Client Stub Class:**

Java  
com.primavera.ws.p6.projectdocument.ProjectDocumentService  
.NET  
Primavera.Ws.P6.ProjectDocument.ProjectDocumentPortBinding

**Description:**

Documents are guidelines, procedures, standards, plans, design templates, worksheets, or other information related to a project. A document, or work product, can provide standards and guidelines for performing project work, or it can be formally identified as a project standard. Documents can be identified as project deliverables that will be given to the end user or customer at the end of the project. Documents can be assigned to activities and to work breakdown structure (WBS) elements. You can maintain general information about documents, such as revision date, location, and author. Documents are hierarchical objects.

This business object supports user defined fields (UDFs). Use the UDFValue business object to assign UDFs.

### CreateProjectDocuments Operation

Description: Creates multiple ProjectDocument objects in the database. You can create up to 1000 ProjectDocument objects with a single call.

**Service:** *ProjectDocument Service* (on page 507)

Style: Document/literal wrapped

Input:

Message: CreateProjectDocuments

Elements: ProjectDocument elements that contain **ProjectDocument Fields** (on page 510) fields

Required fields: The following fields are required when creating the ProjectDocument object:

- ▶ ProjectObjectId|WBSObjectId|ActivityObjectId
- ▶ DocumentObjectId

Output:

Message: CreateProjectDocumentsResponse

Output: Zero to many ObjectId elements

### ReadProjectDocuments Operation

Description: Reads ProjectDocument objects from the database.

**Service: *ProjectDocument Service (on page 507)***

Style: Document/literal wrapped

Input:

Message: ReadProjectDocuments

Elements: One to many field names from the ***ProjectDocument Fields*** (on page 510) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectDocumentsResponse

Output: Zero to many ProjectDocument elements that contain ProjectDocument fields.

**UpdateProjectDocuments Operation**

Description: Updates multiple ProjectDocument objects in the database. You can update up to 1000 ProjectDocument objects with a single call.

**Service: *ProjectDocument Service (on page 507)***

Style: Document/literal wrapped

Input:

Message: UpdateProjectDocuments

Elements: ProjectDocument elements that contain ***ProjectDocument Fields*** (on page 510) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateProjectDocumentsResponse

Output: boolean

**DeleteProjectDocuments Operation**

Description: Deletes multiple ProjectDocument objects in the database. You can delete up to 1000 ProjectDocument objects with a single call.

**Service: *ProjectDocument Service (on page 507)***

Style: Document/literal wrapped

Input:

Message: DeleteProjectDocuments

Elements: One to many ObjectID elements

Output:

Message: DeleteProjectDocumentsResponse

Output: boolean

### GetFieldLengthProjectDocument Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ProjectDocument Service (on page 507)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectDocument

Elements: FieldLength

Output:

Message: GetFieldLengthProjectDocumentResponse

Elements: One to many FieldLengthProjectDocuments.

### ProjectDocument Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityId	string restricted to maxLength(40)	X	X	The short ID that uniquely identifies the activity within the project.
ActivityName	string restricted to maxLength(120)	X	X	The name of the activity. The activity name does not have to be unique.
ActivityObjectId	int		X	The unique ID of the activity to which the activity document applies.
CreateDate	dateTime	X	X	The date this document was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this document.

	55)			
DocumentCategoryName	string	X	X	The name of the category associated with the document.
DocumentObjectId	int		X	The unique ID of the document to which the activity document applies.
DocumentStatusName	string	X		The description of the document status.
DocumentTitle	string restricted to maxLength(120)	X	X	The title or name of a document assigned to a WBS or activity within a project.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
IsWorkProduct	boolean		X	The flag that indicates whether the document is a work product.
LastUpdateDate	dateTime	X	X	The date this document was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this document.
ObjectId	int		X	The unique ID generated by the system.
ParentWBSObjectId	int	X	X	The parent id of the WBS element to which the document is assigned.
ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the project.

ProjectObjectld	int		X	The unique ID of the project to which the activity document applies.
WBSCode	string restricted to maxLength(40)	X	X	The short code assigned to each WBS element for identification. Each WBS element is uniquely identified by concatenating its own code together with its parents' codes.
WBSName	string restricted to maxLength(100)	X	X	The name of the WBS element.
WBSObjectld	int		X	The unique ID of the WBS to which the activity document applies.

## ResourceLocation Service

### Operations:

**CreateResourceLocations Operation** (on page 513)

**ReadResourceLocations Operation** (on page 513)

**UpdateResourceLocations Operation** (on page 514)

**DeleteResourceLocations Operation** (on page 514)

**GetFieldLengthResourceLocation Operation** (on page 514)

### WSDL: ResourceLocation.wsdl

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceLocation/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceLocationService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ResourceLocationService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resourcelocation.ResourceLocationService`



**Description:**

The resource location is used to store the current location information including latitude and longitude for the resource. The current location of the Resource could be different from the Location indicated by the LocationObjectId field in Resource for a mobile resource. There can be only one resource location for each Resource for now.

**CreateResourceLocations Operation**

Description: Creates multiple ResourceLocation objects in the database. You can create up to 1000 ResourceLocation objects with a single call.

**Service:** *ResourceLocation Service (on page 512)*

Style: Document/literal wrapped

Input:

Message: CreateResourceLocations

Elements: ResourceLocation elements that contain **ResourceLocation Fields** (on page 515) fields

Required fields: The following fields are required when creating the ResourceLocation object:

- ▶ ResourceObjectId
- ▶ Latitude
- ▶ Longitude

Output:

Message: CreateResourceLocationsResponse

Output: Zero to many ObjectIds

**ReadResourceLocations Operation**

Description: Reads ResourceLocation objects from the database.

**Service:** *ResourceLocation Service (on page 512)*

Style: Document/literal wrapped

Input:

Message: ReadResourceLocations

Elements: One to many fields from the **ResourceLocation Fields** (on page 515) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceLocationsResponse

Output: Zero to many ResourceLocation elements that contain ResourceLocation fields.

### UpdateResourceLocations Operation

Description: Updates multiple ResourceLocation objects in the database. You can update up to 1000 ResourceLocation objects with a single call.

**Service:** *ResourceLocation Service (on page 512)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceLocations

Elements: ResourceLocation elements that contain **ResourceLocation Fields** (on page 515) fields

Output:

Message: UpdateResourceLocationsResponse

Output: boolean

### DeleteResourceLocations Operation

Description: Deletes multiple ResourceLocation objects in the database. You can delete up to 1000 ResourceLocation objects with a single call.

**Service:** *ResourceLocation Service (on page 512)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceLocations

Elements: One to many ObjectIds

Output:

Message: DeleteResourceLocationsResponse

Output: boolean

### GetFieldLengthResourceLocation Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceLocation Service (on page 512)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceLocation

Elements: FieldLength

Output:

Message: getFieldLengthResourceLocationResponse

Elements: One to many FieldLengthResourceLocations.

### ResourceLocation Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this resource location was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this resource location.
LastUpdateDate	dateTime	X	X	The date this resource location was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this resource location.
Latitude	double		X	The latitude of the resource location.
Longitude	double		X	The longitude of the resource location.
ObjectId	int		X	The unique ID of the resource location.
ResourceObjectId	int		X	The unique ID of the associated resource.

## Job Service

### Operations:

**UpdateBaseline Operation** (on page 516)

**ApplyActuals Operation** (on page 517)

**CancelJob Operation** (on page 519)

- GetCurrentJobs Operation*** (on page 520)
- Level Operation*** (on page 521)
- ReadJobLog Operation*** (on page 522)
- ReadJobStatus Operation*** (on page 523)
- RecalculateAssignmentCosts Operation*** (on page 524)
- Schedule Operation*** (on page 525)
- ScheduleCheck Operation*** (on page 527)
- StorePeriodPerformance Operation*** (on page 528)
- SummarizeCBS Operation*** (on page 529)
- SummarizeEPS Operation*** (on page 530)
- SummarizeProject Operation*** (on page 531)
- SendToUnifier Operation*** (on page 533)

### **WSDL: Job.wsdl**

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Job/V2>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/JobService?wsdl>

<https://<hostname>:<port number>/p6ws/services/JobService?wsdl>

### **Java Client Stub Class:**

`com.primavera.ws.p6.job.JobService`

### **Description:**

The Job service enables you to initiate and process specialized jobs asynchronously. You can check the status of a job by using the ReadJobStatus operation. To cancel a job, use the CancelJob operation. Note that cancelling the job has no effect if the job has already run.

## **UpdateBaseline Operation**

Description: Updates the baseline of a project.

### **Service: Job Service (on page 515)**

Style: Document/literal wrapped

Input:

Message: UpdateBaseline

Elements:

Field	Type	Description
JobId	string	The unique identifier for the job.
BaselineProjId	int	The unique identifier for the baseline project.
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When this operation is used without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without waiting for the job service to complete.

Output:

Message: UpdateBaselineResponse

Elements:

Field	Type	Description
JobStatus	JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	Specifies the status of the job.

## ApplyActuals Operation

Description: Asynchronously applies actuals to a project.

**Service: Job Service (on page 515)**

Style: Document/literal wrapped

Input:

Message: ApplyActuals

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier for the project.
NewDataDate	dateTime	The new data date.
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When this operation is used without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without waiting for the job service to complete.

Output:

Message: ApplyActualsResponse

Elements:

Field	Type	Description
JobId	string	Specifies the unique identifier for the job.
JobStatus	JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With	Specifies the status of the job.

	Errors'	
--	---------	--

## CancelJob Operation

Description: Cancels an asynchronous job initiated by P6 EPPM Web Services or the P6 Integration API.

**Service:** *Job Service (on page 515)*

Style: Document/literal wrapped

Input:

Message: CancelJob

Elements:

Field	Type	Description
JobId	string	The unique identifier for the job.

Output:

Message: CancelJobResponse

Elements:

Field	Type	Description
JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	Specifies the status of the job.

--	--	--

## GetCurrentJobs Operation

Description: Retrieves job information for current asynchronous jobs of this user.

**Service:** *Job Service* (on page 515)

Style: Document/literal wrapped

Input:

Message: GetCurrentJobs

Elements: None

Output:

Message: GetCurrentJobsResponse

Elements: Jobinfo Element that contains:

Field	Type	Description
JobId	string	The unique identifier of the job.
JobType	string restricted to 'Apply Actuals' 'Level', 'Recalculate Assignment Costs' 'Schedule' 'Store Period Performance' 'Summarize' 'Sync Actual This Period'	Specifies the JobType.
JobStatus	string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	Specifies the status of the job.
SubmittedDate	dateTime	The date and time that the job was



		submitted.
LastRunDate	dateTime	The date and time the job was run.
ProjectObjectId	int	The unique identifier of the project. This field does not apply to all jobs.
EPSObjectId	int	The unique identifier of the EPS. This field does not apply to all jobs.
WorkerHost	string	The name of the host machine that ran the job.

## Level Operation

Description: Asynchronously levels a project. Resource leveling is a process that helps you identify overallocated resources. Then you can reassign work to other resources if necessary to ensure that sufficient resources are available to perform the activities in your project according to the plan.

**Service:** *Job Service (on page 515)*

Style: Document/literal wrapped

Input:

Message: Level

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier of the project.
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When you use this operation without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without waiting for the job service to complete.

Output:

Message: LevelResponse

Elements:

Field	Type	Description
JobId	string	The unique identifier of the job.
JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	Specifies the status of the job.

## ReadJobLog Operation

Description: Retrieves the log of an asynchronous job initiated by P6 EPPM Web Services or the Integration API.

**Service:** *Job Service (on page 515)*

Style: Document/literal wrapped

Input:

Message: ReadJobLog

Elements:

Field	Type	Description
JobId	string	The unique identifier for the job.

Output:

Message: ReadJobLogResponse

Elements:

Field	Type	Description
JobLog	string	Contains the log from the job.

## ReadJobStatus Operation

Description: Retrieves the status of an asynchronous job initiated by P6 EPPM Web Services or the Integration API.

**Service:** *Job Service (on page 515)*

Style: Document/literal wrapped

Input:

Message: ReadJobStatus

Elements:

Field	Type	Description
JobId	string	The unique identifier for the job.

Output:

Message: ReadJobStatusResponse

Elements:

Field	Type	Description
JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With'	Specifies the status of the job.

	Errors'	
--	---------	--

## RecalculateAssignmentCosts Operation

Description: Asynchronously updates the resource and role assignment costs for the activities in the specified project.

**Service:** *Job Service (on page 515)*

Style: Document/literal wrapped

Input:

Message: RecalculateAssignmentCosts

Elements:

Field	Type	Description
ProjectObjectId	int	The unique ID of the associated project.
SynchronizeOvertimeFactor	boolean	Flag that indicates that the overtime factor for the resource should be included when recalculating cost
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When this operation is used without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without waiting for the job service to complete.

Output:

Message: RecalculateAssignmentCostsResponse

Elements:

Field	Type	Description
JobId	string	Specifies the unique identifier for the job.

JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	Specifies the status of the job.
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## Schedule Operation

Description: Asynchronously schedules a project.

**Service:** *Job Service* (on page 515)

Style: Document/literal wrapped

Input:

Message: Schedule

Elements:

Field	Type	Description
ProjectObjectId	int	A comma separated list of the unique identifiers of the projects to be scheduled. If more than one identifier is supplied, the schedule operation will use the scheduling options of the first project in the list.
EPSObjectId	int	A comma separated list of the unique identifiers of the EPS nodes to be scheduled. You must also supply at least one ProjectObjectId to determine which project's scheduling options should be honored.

PortfolioObjectId	int	A comma separated list of the unique identifiers of the portfolios to be scheduled. You must also supply at least one ProjectObjectId to determine which project's scheduling options should be honored.
NewDataDate	dateTime	The new data date.
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When you use this operation without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without waiting for the job service to complete.

Output:

Message: ScheduleResponse

Elements:

Field	Type	Description
JobId	string	The unique identifier of the job.
JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	Specifies the status of the job.

## ScheduleCheck Operation

Description: Starts the Check Schedule job service on a project.

**Service:** *Job Service (on page 515)*

Style: Document/literal wrapped

Input:

Message: ScheduleCheck

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier of the project in P6.
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When this operation is used without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without waiting for the job service to complete.

Output:

Message: ScheduleCheckResponse

Elements:

Field	Type	Description
JobId	string	The unique identifier of the job.
JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running'	Specifies the status of the job.

	'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	
--	---	--

## StorePeriodPerformance Operation

Description: Asynchronously stores period performance for a single project.

**Service:** *Job Service (on page 515)*

Style: Document/literal wrapped

Input:

Message: StorePeriodPerformance

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier of the associated project.
FinancialPeriodObjectid	int	The unique identifier of the associated financial period.
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When you use this operation without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without waiting for the job service to complete.

Output:

Message: StorePeriodPerformanceResponse

Elements:



Field	Type	Description
JobId	string	The unique identifier of the job.
JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	Specifies the status of the job.

## SummarizeCBS Operation

Description: Summarizes CBS for a project.

**Service:** *Job Service (on page 515)*

Style: Document/literal wrapped

Input:

Message: SummarizeCBS

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier of the project that you want to send to Primavera Unifier.
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When this operation is used without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without

		waiting for the job service to complete.
--	--	--

Output:

Message: SummarizeCBSResponse

Elements:

Field	Type	Description
JobId	string	The unique identifier of the job.
JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	Specifies the status of the job.

## SummarizeEPS Operation

Description: Asynchronously summarizes an EPS node.

**Service:** *Job Service (on page 515)*

Style: Document/literal wrapped

Input:

Message: SummarizeEPS

Elements:

Field	Type	Description
ObjectId	int	The unique identifier of the EPS you want

		to summarize.
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When you use this operation without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without waiting for the job service to complete.

Output:

Message: SummarizeEPSResponse

Elements:

Field	Type	Description
JobId	string	The unique identifier of the job.
JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	Specifies the status of the job.

## SummarizeProject Operation

Description: Asynchronously summarizes a project.

**Service:** *Job Service* (on page 515)

Style: Document/literal wrapped

Input:

Message: SummarizeProject

Elements:

Field	Type	Description
ObjectId	int	The unique identifier of the project you want to summarize.
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When this operation is used without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without waiting for the job service to complete.

Output:

Message: SummarizeProjectResponse

Elements:

Field	Type	Description
JobId	string	The unique identifier of the job.
JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Completed With Errors'	Specifies the status of the job.

## SendToUnifier Operation

Description: Asynchronously summarizes a project.

**Service:** *Job Service (on page 515)*

Style: Document/literal wrapped

Input:

Message: SendToUnifier

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier of the project that you want to send to Primavera Unifier.
Timeout	int	The amount of time in seconds that the server side will wait for the job service to complete before it returns with the current job status. The Timeout parameter is optional. When this operation is used without specifying a Timeout parameter or with a Timeout of 0, the server immediately returns without waiting for the job service to complete.

Output:

Message: SendToUnifierResponse

Elements:

Field	Type	Description
JobId	string	The unique identifier of the job.
JobStatus	JobStatusType JobStatusType string restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled'	Specifies the status of the job.

	'Completed With Errors'	
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## JobService Service

### Operations:

**CreateJobServices Operation** (on page 535)

**ReadJobServices Operation** (on page 535)

**UpdateJobServices Operation** (on page 535)

**DeleteJobServices Operation** (on page 536)

**GetFieldLengthJobService Operation** (on page 536)

### WSDL: JobService.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/JobService/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/JobService?wsdl>

<https://<hostname>:<port number>/p6ws/services/JobService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.jobservice.JobService`

### Description:

You can import the byte array and data for the following job types:

- ▶ Schedule
- ▶ Summarize
- ▶ Apply Actuals
- ▶ Store Period Performance
- ▶ Sync Actual This Period
- ▶ Level
- ▶ Recalculate Assignment Costs
- ▶ Send To Unifier
- ▶ Update Baseline
- ▶ Import Project
- ▶ ScheduleCheck
- ▶ ExportCheck

### CreateJobServices Operation

Description: Creates multiple JobService objects in the database. You can create up to 1000 JobService objects with a single call.

**Service:** *JobService Service* (on page 534)

Style: Document/literal wrapped

Input:

Message: CreateJobServices

Elements: One to many field names from the *JobService Fields* (on page 536) field list.

Required: JobType

Output:

Message: CreateJobServicesResponse

Output: Zero to many JobService elements that contain JobService fields.

### ReadJobServices Operation

Description: Reads multiple JobService objects in the database.

**Service:** *JobService Service* (on page 534)

Style: Document/literal wrapped

Input:

Message: ReadJobServices

Elements: One to many field names from the *JobService Fields* (on page 536) field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadJobServicesResponse

Output: Zero to many JobService elements that contain JobService fields.

### UpdateJobServices Operation

Description: Updates JobService objects from the database. You can update up to 1000 JobService objects with a single call.

**Service:** *JobService Service* (on page 534)

Style: Document/literal wrapped

Input:

Message: UpdateJobServices

Elements: One to many fields from the *JobService Fields* (on page 536) field list

Output:

Message: UpdateJobServicesResponses

Output: boolean

### DeleteJobServices Operation

Description: Deletes JobService objects from the database. You can delete up to 1000 JobService objects with a single call.

Service: **JobService Service** (on page 534)

Style: Document/literal wrapped

Input:

Message: DeleteJobServices

Elements: One to many fields from the **JobService Fields** (on page 536) field list

Output:

Message: DeleteJobServicesResponses

Output: boolean

### GetFieldLengthJobService Operation

Description: Gets an array of project IDs that are contained in the project portfolios.

Service: **JobService Service** (on page 534)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthJobService

Elements: FieldLength

Output:

Message: GetFieldLengthJobServiceResponse

Elements: One to many FieldLengthJobServices.

### JobService Fields

Field	Type	Read Only	Filterable Orderable	Descriptions
ExportFilePath	string			Exported file path.
FileName	string		X	Exported File Name.
ImportXMLByte	string		X	Import byte array



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JobData	string		X	The job data for the job service.
JobDataX	string		X	The job data X for the job service.
JobRecurringType	string restricted to '' 'Enabled' 'Disabled' 'WeASAP' 'None'		X	JobRecurringType for job service
JobStatus	enum restricted to 'Pending' 'Running' 'Complete' 'Failed' 'Cancelled' 'Delegated' 'Completed With Errors'	X	X	The status of the job.

JobType	enum restricted to 'Schedule' 'Summarize' 'Apply Actuals' 'Store Period Performance' 'Sync Actual This Period' 'Level' 'Recalculate Assignment Costs' 'Send To Unifier' 'Update Baseline' 'Import Project' 'Schedule Check' 'Export Project' 'Preview Update Baseline Service' 'Project CBS Service' 'Copy Project Service'		X	The type of the job service.
JobTypeKey	string		X	Project ObjectID to be used by job.
LastRunDate	dateTime		X	LastRunDate for job service.
Name	string restricted to maxLength(100)		X	The name of the job service.
ObjectID	int		X	The unique ID generated by the system.
ProjectInfo	string			The source Project ID to copy. Maximum 4000 characters.

TargetWbsId	int			The target WBS ID under which the newly copied project will be placed.
UserId	int		X	The ID of the user that ran a job service.

## ScheduleCheckOption Service

### Operations:

- CreateScheduleCheckOptions Operation** (on page 539)
- ReadScheduleCheckOptions Operation** (on page 540)
- UpdateScheduleCheckOptions Operation** (on page 540)
- DeleteScheduleCheckOptions Operation** (on page 541)
- GetFieldLengthScheduleCheckOption Operation** (on page 541)

### WSDL: SchedleCheckOption.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ScheduleCheckOption/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ScheduleCheckOptionService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/ScheduleCheckOptionService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.userfieldtitle.ScheduleCheckOptionService`

### Description

View potential issues in a schedule. For example, the report might identify missing logic or a large number of constraints in the schedule.

## CreateScheduleCheckOptions Operation

Description: Creates multiple ScheduleCheckOptions objects in the database. You can create up to 1000 ScheduleCheckOptions objects with a single call.

### Service: ScheduleCheckOption Service (on page 539)

Style: Document/literal wrapped

Input:

Message: Response

Elements: ScheduleCheckOption elements that contain ScheduleCheckOption Fields fields

Required fields: The following fields are required when creating the ScheduleCheckOption object:

- ▶ ProjectId

Output:

Message: CreateScheduleCheckOptionsResponse

Output: Zero to many ObjectId elements

### ReadScheduleCheckOptions Operation

Description: Reads ScheduleCheckOption objects from the database.

**Service:** *ScheduleCheckOption Service (on page 539)*

Style: Document/literal wrapped

Input:

Message:

Elements: One to many field names from the ScheduleCheckOption Fields field list.

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause.

Output:

Message: ReadScheduleCheckOptionsResponse

Output: Zero to many ScheduleCheckOption elements that contain ScheduleCheckOption Fields fields.

### UpdateScheduleCheckOptions Operation

Description: Updates multiple ScheduleCheckOption objects in the database. You can update up to 1000 ScheduleCheckObject objects with a single call.

**Service:** *ScheduleCheckOption Service (on page 539)*

Style: Document/literal wrapped

Input:

Message: UpdateScheduleCheckOptions

Elements: ScheduleCheckOption elements that contain ScheduleCheckOption Fields fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateScheduleCheckOptionsResponse

Output: boolean

### DeleteScheduleCheckOptions Operation

Description: Deletes multiple ScheduleCheckOption objects in the database. You can delete up to 1000 ScheduleCheckOption objects with a single call.

**Service:** *ScheduleCheckOption Service (on page 539)*

Style: Document/literal wrapped

Input:

Message: DeleteScheduleCheckOptions

Elements: One to many ObjectID elements

Output:

Message: DeleteScheduleCheckOptionsResponse

Output: boolean

### GetFieldLengthScheduleCheckOption Operation

Description: Gets an array of project IDs that are contained in the project portfolios.

**Service:** *ScheduleCheckOption Service (on page 539)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthScheduleCheckOption

Elements: FieldLength

Output:

Message: GetFieldLengthScheduleCheckOptionResponse

Elements: One to many FieldLengthScheduleCheckOptions.

### ScheduleCheckOption Fields

Field	Type	Read Only	Filterable Orderable	Description
BEITripwireTarget	double restricted to minInclusive(0.0) maxInclusive(1.0)			The baseline execution index.

CheckBEITripwire	boolean			The baseline execution index.
CheckDanglingFinish	boolean			Checks for activities with start dates that are not driven by the activity's predecessors.
CheckDanglingStart	boolean			Checks for activities with finish dates that do not drive the activity's successors.
CheckHardConstraints	boolean			Checks for the constraints that prevent activities from being moved.
CheckInvalidProgress	boolean			Checks for activities that have invalid progress dates.
CheckLags	boolean			Checks for relationships that have a positive lag duration.
CheckLargeDurations	boolean			Checks for activities that have a remaining duration that is greater than the specified LargeDurationCriteria value..
CheckLargeFloat	boolean			Checks for activities that have a float value greater than the specified LargeFloatCriteria value.
CheckLateActivities	boolean			Checks for activities that are scheduled to finish later than the project baseline.
CheckLogic	boolean			Checks for activities with missing predecessors or successors.
CheckLongLags	boolean			Checks for relationships that have a lag duration that is greater than the specified LongLagsCriteria value.
CheckNegativeFloat	boolean			Checks for activities that have a total float less than 0.

CheckNegativeLags	boolean			Checks for relationships that have a lag duration less than 0.
CheckRelationships	boolean			Checks for the relationships that are set
CheckResources	boolean			Checks for activities that do not have an expense or an assigned resource.
CheckSoftConstraints	boolean			Checks for constraints that do not prevent activities from being moved.
DanglingFinishTarget	int restricted to minInclusive(0) maxInclusive(100)			Activities that have a dangling finish.
DanglingStartTarget	int restricted to minInclusive(0) maxInclusive(100)			Activities that have a dangling start.
HardConstraintTarget	int restricted to minInclusive(0) maxInclusive(100)			Checks for constraints that prevent activities from being moved.
LagsTarget	int restricted to minInclusive(0) maxInclusive(100)			Relationships that have a positive lag duration.

LargeDurationCriteria	int restricted to minInclusive(0) maxInclusive(2147483647)			The value of the Large Duration Criteria.
LargeDurationTarget	int restricted to minInclusive(0) maxInclusive(100)			Activities that have a remaining duration greater than the Large Duration Criteria.
LargeFloatCriteria	int restricted to minInclusive(0) maxInclusive(2147483647)			The value of the Large Float Criteria.
LargeFloatTarget	int restricted to minInclusive(0) maxInclusive(100)			Activities that have a total float greater than the Large Float Criteria.
LateActivitiesTarget	int restricted to minInclusive(0) maxInclusive(100)			Activities that are scheduled to finish later than the project baseline.
LogicTarget	int restricted to minInclusive(0) maxInclusive(100)			Activities that are missing predecessors or successors.



LongLagsCriteria	int restricted to minInclusive(0) maxInclusive(2147483647)			The value of the Long Lags Criteria.
LongLagsTarget	int restricted to minInclusive(0) maxInclusive(100)			Relationships that have a lag duration greater than the Long Lags Criteria.
NegativeFloatTarget	int restricted to minInclusive(0) maxInclusive(100)			Activities that have a total float less than 0.
NegativeLagsTarget	int restricted to minInclusive(0) maxInclusive(100)			Relationships that have a lag duration less than 0.
ProgressDateTarget	int restricted to minInclusive(0) maxInclusive(100)			Activities that have invalid progress dates.
ProjPropTypeInt	int			The enum values that are associated with the Project Property Type.
ProjectObjectId	int	X	X	The unique identifier of the project which has a schedule you want to check.
PropValue	string			The Project Property Type value.

RelationshipTarget	int restricted to minInclusive(0) maxInclusive(100)			The relationships that are finish to start.
ResourcesTarget	int restricted to minInclusive(0) maxInclusive(100)			Activities that do not have an expense or an assigned resource.
ScheduleCheckData	string			The ScheduleCheck data.
ScheduleCheckOptionsId	int			The unique id for ScheduleCheckOptions.
SoftConstraintTarget	int restricted to minInclusive(0) maxInclusive(100)			Constraints that do not prevent activities from being moved.

## Import Service

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### Operations:

**CreateNewProject Operation** (on page 547)

**ImportProjectAsyncASAP Operation** (on page 552)

**ImportProjects Operation** (on page 556)

**UpdateExistingProject Operation** (on page 561)

### WSDL: Import.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/WSImport/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ImportService?wsdl>

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`https://<hostname>:<port number>/p6ws/services/ImportService?wsdl`

**Java Client Stub Class:**

`com.primavera.ws.p6.import.ImportService`

**Description:**

This service lets you import one or more projects from XML. The `CreateProject` operation imports one project from XML, and the `ImportProjects` operation imports one or more projects from XML. For each project, the import includes the project and all related business objects supported by the importer and in use in the project. For example, the project's activities, resource assignments, and associated resources are included.

The Import service uses MTOM (Message Transmission Optimization Mechanism) to send the input files as attachments.

The schema of the input file is contained in the `p6apibo.xsd` file located in P6 EPPM Web Services' schema folder and is the same schema used by the P6 Integration API's `XMLImporter`.

Each business object in the XML file must contain an `ObjectId` field, which is a unique identifier for the object corresponding most of the time to the primary key in the database. This `ObjectId` field will not be imported as it is. Instead, it is replaced by a new value to guarantee that it does not conflict with any existing objects in the database. The `ObjectId` field in the XML file is needed for when an object is referenced by other business objects in the same file. For example, `ResourceAssignment` has a field named `ResourceObjectId` that references an `Resource` with `ObjectId` field of the same value. If this foreign key reference is not resolved successfully (the `Resource` with the same `ObjectId` could not be found in the file), the importer either skips this field if the field is nullable, or will not import the object at all.

When you export from Primavera P6, database keys in the export file are only used by the importer for referential integrity, not for matching records in the database. You are responsible for ensuring the referential integrity of the XML file that you use with the Import Service.

The Import service will import all global objects before project-specific objects. The service imports one kind of object at one time according to a predetermined order. For example, `resource` will be imported before `ResourceAssignment` since `ResourceAssignment` has a reference to `Resource`. For project-specific objects, the service imports one project at a time.

For each kind of business object, there is a set of fields called "required fields" that you must set when directly creating an object. For information about which fields are required for any business object that has a create operation, refer to the "required fields" section corresponding to that business object's create operation in this manual.

**Note:** The import services is implemented using MTOM (Message Transmission Optimization Mechanism) for sending files as attachments.

## CreateNewProject Operation

**Description:** Imports a new project from an XML file. The new project is created under the EPS specified by the `EPSObjectId`.

**Service: Import Service (on page 546)**

Style: Document/literal wrapped

Input:

Message: CreateNewProject

Elements: CreateNewProject elements that contain the following elements:

Field	Type	Description
DefaultGlobalImportOption	ImportOption string restricted to <ul style="list-style-type: none"> <li>▶ Create New</li> <li>▶ Do Not Import</li> <li>▶ Keep Existing</li> <li>▶ Update Existing</li> </ul>	Import options that may be applied to projects globally.
DefaultProjectSpecificImportOption	ImportOption string restricted to <ul style="list-style-type: none"> <li>▶ Create New</li> <li>▶ Do Not Import</li> <li>▶ Keep Existing</li> <li>▶ Update Existing</li> </ul>	Import options that may be applied to specific projects.
EPSObjectID	int	Specifies the ID of the Enterprise Project Structure location where the project will be created.
FileType	FileType string restricted to GZIP XML	Specifies the file type that the system imports.

	ZIP	
IgnoreGUID	boolean	When this flag is set to true, the XMLImporter ignores all GUID fields in the XML file, and allows new GUID values to be generated. When this flag is set to false, the XMLImporter uses the GUID fields.
IgnoreSequenceNumber	boolean	When this flag is set to true, the XMLImporter ignores all SequenceNumber fields in the XML file, and allows new SequenceNumber values to be generated. When this flag is set to false, XMLImporter uses the SequenceNumber fields.
LogLevel	LogLevel string restricted to	

	<p>SEVERE WARNING INFO CONFIG FINE FINER FINEST</p>	
ProjectData	base64Binary	This element contains a reference to the data that is outside the SOAP message in compliance with MTOM specification.
BusinessObjectOptions	<p>BusinessObjectOptions</p> <p>Global</p> <ul style="list-style-type: none"> <li>▶ ActivityCode</li> <li>▶ ActivityCodeType</li> <li>▶ ActivityCodeTypeEPS</li> <li>▶ Calendar</li> <li>▶ CalendarRsrc</li> <li>▶ CostAccount</li> <li>▶ Currency</li> <li>▶ ExpenseCategory</li> <li>▶ FinancialPeriod</li> <li>▶ FundingSource</li> <li>▶ NotebookTopic</li> <li>▶ OBS</li> <li>▶ ProjectCode</li> <li>▶ ProjectCodeType</li> <li>▶ ProjectResourceCategory</li> <li>▶ Resource</li> <li>▶ ResourceCode</li> <li>▶ ResourceCodeType</li> <li>▶ ResourceCurve</li> <li>▶ ResourceRate</li> <li>▶ ResourceRole</li> </ul>	<p>Specifies which business objects to import according to the following rules:</p> <p>If no BusinessObjectOptions are specified, then all of the business objects in the project are imported. If any BusinessObjectOptions are specified, then only those business objects specified by</p>

	<ul style="list-style-type: none"> <li>▶ RiskCategory</li> <li>▶ RiskMatrixScore</li> <li>▶ RiskMatrixThreshold</li> <li>▶ RiskMatrix</li> <li>▶ RiskThreshold</li> <li>▶ RiskThresholdLevel</li> <li>▶ Role</li> <li>▶ RoleRate</li> <li>▶ RoleLimit</li> <li>▶ Shift</li> <li>▶ ThresholdParameter</li> <li>▶ UDFCode</li> <li>▶ UDFType</li> <li>▶ UnitOfMeasure</li> <li>▶ WBSCategory</li> </ul> <p>ProjectSpecific</p> <ul style="list-style-type: none"> <li>▶ Activity</li> <li>▶ ActivityCode</li> <li>▶ ActivityCodeType</li> <li>▶ ActivityExpense</li> <li>▶ ActivityNote</li> <li>▶ ActivityPeriodActual</li> <li>▶ ActivityRisk</li> <li>▶ ActivityStep</li> <li>▶ Calendar</li> <li>▶ ExtRelationship</li> <li>▶ ProjectBudgetChangeLog</li> <li>▶ ProjectFunding</li> <li>▶ ProjectIssue</li> <li>▶ ProjectNote</li> <li>▶ ProjectResource</li> <li>▶ ProjectResourceQuantity</li> <li>▶ ProjectSpendingPlan</li> <li>▶ ProjectThreshold</li> <li>▶ Relationship</li> <li>▶ ResourceAssignment</li> <li>▶ ResourceAssignmentPeriodActual</li> <li>▶ Risk</li> <li>▶ RiskImpact</li> <li>▶ RiskResponseAction</li> </ul>	<p>the BusinessObjectOptions element are imported.</p>
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	<ul style="list-style-type: none"> <li>▶ RiskResponseActionImpact</li> <li>▶ RiskResponsePlan</li> <li>▶ WBS</li> <li>▶ WBSMilestone</li> </ul>	
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Output:

Message: CreateNewProjectResponse

Elements:

Field	Type	Description
LogFile	base64Binary	Contains the logging information from the CreateNewProject operation.
ErrorMessage	string	If an exception is thrown, ErrorMessage contains the message part of the exception.
ProjectObjectId	int	The unique identifier of the project that was created by the CreateNewProject operation.
Success	boolean	Boolean flag that indicates whether the CreateNewProject operation was successful.

## ImportProjectAsyncASAP Operation

**Description:** Imports one or more new projects from an XML file asynchronously as a job. Each new project is created under the EPS specified by the EPSObjectId. When you call the ImportProjects operation, you specify one or more ImportProject elements. Each of these elements contain information about the project you are importing.

**Service:** *Import Service* (on page 546)

Style: Document/literal wrapped

Input:

Message: ImportProjectAsyncASAP

Elements: ImportProjectAsyncASAP elements that contain the following elements:



Field	Type	Description
CurrenciesImportInOption	string restricted to baserate xmlrate	Specifies whether to use the currency exchange rate in the database or the currency exchange rate in the xml for import. Selecting the baserate option, will cause costs in the xml file to be converted using the currency exchange rates to ensure that the costs imported are the same as those which were exported. Selecting the xml option will not convert currencies so the costs imported may differ from those which were exported.
ImportProject	ImportProject	
ImportType	string	
ImportTemplateName	string	
PreImportCustomizationTemplateName	string	
FileType	FileType string restricted to GZIP XML ZIP	Specifies the file type that the system supports.
IgnoreGUID	boolean	When this flag is set to true, the XMLImporter ignores all GUID fields in the XML file, and allows new GUID values to be generated. When this flag is set to false, the XMLImporter uses the GUID fields.

IgnoreSequenceNumber	boolean	When this flag is set to true, the XMLImporter ignores all SequenceNumber fields in the XML file, and allows new SequenceNumber values to be generated. When this flag is set to false, XMLImporter uses the SequenceNumber fields.
LogLevel	LogLevel	
ProjectData	base64Binary	This element contains a reference to the data that is outside the SOAP message in compliance with MTOM specification.

<p>BusinessObjectOptions</p>	<p>BusinessObjectOptions</p> <p>Global</p> <ul style="list-style-type: none"> <li>▶ ActivityCode</li> <li>▶ ActivityCodeType</li> <li>▶ ActivityCodeTypeEPS</li> <li>▶ Calendar</li> <li>▶ CalendarRsrc</li> <li>▶ CostAccount</li> <li>▶ Currency</li> <li>▶ ExpenseCategory</li> <li>▶ FinancialPeriod</li> <li>▶ FundingSource</li> <li>▶ NotebookTopic</li> <li>▶ OBS</li> <li>▶ ProjectCode</li> <li>▶ ProjectCodeType</li> <li>▶ ProjectResourceCategory</li> <li>▶ Resource</li> <li>▶ ResourceCode</li> <li>▶ ResourceCodeType</li> <li>▶ ResourceCurve</li> <li>▶ ResourceRate</li> <li>▶ ResourceRole</li> <li>▶ RiskCategory</li> <li>▶ RiskMatrixScore</li> <li>▶ RiskMatrixThreshold</li> <li>▶ RiskMatrix</li> <li>▶ RiskThreshold</li> <li>▶ RiskThresholdLevel</li> <li>▶ Role</li> <li>▶ RoleRate</li> <li>▶ RoleLimit</li> <li>▶ Shift</li> <li>▶ ThresholdParameter</li> <li>▶ UDFCCode</li> <li>▶ UDFTType</li> <li>▶ UnitOfMeasure</li> <li>▶ WBSCategory</li> </ul> <p>ProjectSpecific</p> <ul style="list-style-type: none"> <li>▶ Activity</li> <li>▶ ActivityCode</li> <li>▶ ActivityCodeType</li> <li>▶ ActivityExpense</li> <li>▶ ActivityNote</li> <li>▶ ActivityPeriodActual</li> <li>▶ ActivityRisk</li> <li>▶ ActivitySi</li> </ul>	<p>Specifies which business objects to import according to the following rules:</p> <p>If no BusinessObjectOptions are specified, then all of the business objects in the project are imported. If any BusinessObjectOptions are specified, then only those business objects specified by the BusinessObjectOptions element are imported.</p>
<p>BusinessObjectOptions</p>		<p>555</p>

Output:

Message: ImportProjectAsyncASAPResponse

Elements:

Field	Type	Description
ErrorMessage	string	If an exception is thrown, ErrorMessage contains the message part of the exception.
ProjectObjectId	int	The unique identifier of the project that was created or updated by the ImportProjectAsyncASAP operation. If multiple objects are created, a list of project object IDs is returned.
Success	boolean	Boolean flag that indicates whether the ImportProjectAsyncASAP operation was successful.
SuccessMessage	string	The message returned if the ImportProjectAsyncASAP operation was successful.

## ImportProjects Operation

**Description:** Imports one or more new projects from an XML file. Each new project is created under the EPS specified by the EPSObjectId. When you call the ImportProjects operation, you specify one or more ImportProject elements. Each of these elements contain information about the project you are importing.

**Service:** *Import Service (on page 546)*

Style: Document/literal wrapped

Input:

Message: ImportProjects

Elements: ImportProjects elements that contain the following elements:

Field	Type	Description
CurrenciesImportOption	string restricted to baserate xmlrate	Specifies whether to use the currency exchange rate in the database or the currency exchange rate in the xml for import. Selecting the baserate option, will cause costs in the xml file to be converted using the currency exchange rates to ensure that the costs imported are the same as those which were exported. Selecting the xml option will not convert currencies so the costs imported may differ from those which were exported.
ImportProject	ImportProject. See ImportProject Type table below.	
ProjectData	base64Binary	This element contains a reference to the data that is outside the SOAP message in compliance with MTOM specification.
FileType	FileType string restricted to GZIP XML ZIP	Specifies the file type that the system imports.

<p>BusinessObjectOptions</p>	<p>BusinessObjectOptions</p> <p>Global</p> <ul style="list-style-type: none"> <li>▶ ActivityCode</li> <li>▶ ActivityCodeType</li> <li>▶ ActivityCodeTypeEPS</li> <li>▶ Calendar</li> <li>▶ CalendarRsrc</li> <li>▶ CostAccount</li> <li>▶ Currency</li> <li>▶ ExpenseCategory</li> <li>▶ FinancialPeriod</li> <li>▶ FundingSource</li> <li>▶ NotebookTopic</li> <li>▶ OBS</li> <li>▶ ProjectCode</li> <li>▶ ProjectCodeType</li> <li>▶ ProjectResourceCategory</li> <li>▶ Resource</li> <li>▶ ResourceCode</li> <li>▶ ResourceCodeType</li> <li>▶ ResourceCurve</li> <li>▶ ResourceRate</li> <li>▶ ResourceRole</li> <li>▶ RiskCategory</li> <li>▶ RiskMatrixScore</li> <li>▶ RiskMatrixThreshold</li> <li>▶ RiskMatrix</li> <li>▶ RiskThreshold</li> <li>▶ RiskThresholdLevel</li> <li>▶ Role</li> <li>▶ RoleRate</li> <li>▶ RoleLimit</li> <li>▶ Shift</li> <li>▶ ThresholdParameter</li> <li>▶ UDFCode</li> <li>▶ UDFType</li> <li>▶ UnitOfMeasure</li> <li>▶ WBSCategory</li> </ul> <p>ProjectSpecific</p> <ul style="list-style-type: none"> <li>▶ Activity</li> <li>▶ ActivityCode</li> <li>▶ ActivityCodeType</li> <li>▶ ActivityExpense</li> <li>▶ ActivityNote</li> <li>▶ ActivityPeriodActual</li> <li>▶ ActivityRisk</li> </ul>	<p>Specifies which business objects to import according to the following rules:</p> <p>If no BusinessObjectOptions are specified, then all of the business objects in the project are imported. If any BusinessObjectOptions are specified, then only those business objects specified by the BusinessObjectOptions element are imported.</p>
<p>BusinessObjectOptions</p>	<p>BusinessObjectOptions</p>	<p>Specifies which business objects to import according to the following rules:</p> <p>If no BusinessObjectOptions are specified, then all of the business objects in the project are imported. If any BusinessObjectOptions are specified, then only those business objects specified by the BusinessObjectOptions element are imported.</p>

IgnoreGUID	boolean	When this flag is set to true, the XMLImporter ignores all GUID fields in the XML file, and allows new GUID values to be generated. When this flag is set to false, the XMLImporter uses the GUID fields.
IgnoreSequenceNumber	boolean	When this flag is set to true, the XMLImporter ignores all SequenceNumber fields in the XML file, and allows new SequenceNumber values to be generated. When this flag is set to false, XMLImporter uses the SequenceNumber fields.
LogLevel	LogLevel string restricted to SEVERE WARNING INFO CONFIG FINE FINER FINEST	
DefaultGlobalImportOption	ImportOption string restricted to Create New Do Not Import Keep Existing Update Existing	Import options that may be applied to projects globally.
DefaultProjectSpecificImportOption	ImportOption string restricted to	Import options that may be applied to specific projects.

	Create New Do Not Import Keep Existing Update Existing	
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ImportProject Type Table

Field	Type	Description
ProjectObjectId	int	Specifies the Project Id to be imported.
ImportOption	ImportOption string restricted to <ul style="list-style-type: none"> <li>▶ Create New</li> <li>▶ Update Existing</li> </ul>	Specify Create New to import a project that already exists as a new project; specify Update Existing to import a project to update an existing project.
ESPObjctId	int	If the ImportOption is Update Existing, then specifies the Project ID; if the ImportOption is Create New, then specifies the EPS ID.

Output:

Message: ImportProjectsResponse

Elements:

Field	Type	Description
LogFile	base64Binary	Contains the logging information from the ImportProjects operation.
ErrorMessage	string	If an exception is thrown, ErrorMessage contains the message part of the exception.
Success	boolean	Boolean flag that indicates whether the ImportProjects operation was successful.
ProjectObjectId	int	The unique identifier of the project that was created or updated by the ImportProjects operation. If multiple objects are created, a list of project object IDs is returned.



## UpdateExistingProject Operation

Description: Updates the Project that is specified by the ProjectObjectId with data from an XML file.

**Service:** *Import Service (on page 546)*

Style: Document/literal wrapped

Input:

Message: UpdateExistingProject

Elements:

Field	Type	Description
DefaultGlobalImportOption	ImportOption string restricted to Create New Do Not Import Keep Existing Update Existing	Import options that may be applied to projects globally.
DefaultProjectSpecificImportOption	ImportOption string restricted to Create New Do Not Import Keep Existing Update Existing	Import options that may be applied to specific projects.
ProjectObjectId	int	Unique Id of associated project.
FileType	FileType string restricted to GZIP	Specifies the file type that the system imports.

	XML ZIP	
IgnoreGUID	boolean	When this flag is set to true, the XMLImporter ignores all GUID fields in the XML file, and allows new GUID values to be generated. When this flag is set to false, the XMLImporter uses the GUID fields.
IgnoreSequenceNumber	boolean	When this flag is set to true, the XMLImporter ignores all SequenceNumber fields in the XML file, and allows new SequenceNumber values to be generated. When this flag is set to false, XMLImporter uses the SequenceNumber fields.
LogLevel	LogLevel  string restricted to SEVERE WARNING INFO CONFIG FINE FINER FINEST	
ProjectData	base64Binary	This element contains a reference to the data that is outside the SOAP message in compliance with MTOM specification.
BusinessObjectOptions	BusinessObjectOptions  Global  <ul style="list-style-type: none"> <li>▶ ActivityCode</li> <li>▶ ActivityCodeType</li> <li>▶ ActivityCodeTypeEPS</li> <li>▶ Calendar</li> <li>▶ CalendarRsrc</li> <li>▶ CostAccount</li> <li>▶ Currency</li> </ul>	Specifies which business objects to import according to the following rules:  If no BusinessObjectOptions are specified, then all of the business objects in the project are imported. If any BusinessObjectOptions are specified, then only those business objects specified by the BusinessObjectOptions element are imported.

	<ul style="list-style-type: none"> <li>▶ ExpenseCategory</li> <li>▶ FinancialPeriod</li> <li>▶ FundingSource</li> <li>▶ NotebookTopic</li> <li>▶ OBS</li> <li>▶ ProjectCode</li> <li>▶ ProjectCodeType</li> <li>▶ ProjectResourceCategory</li> <li>▶ Resource</li> <li>▶ ResourceCode</li> <li>▶ ResourceCodeType</li> <li>▶ ResourceCurve</li> <li>▶ ResourceRate</li> <li>▶ ResourceRole</li> <li>▶ RiskCategory</li> <li>▶ RiskMatrixScore</li> <li>▶ RiskMatrixThreshold</li> <li>▶ RiskMatrix</li> <li>▶ RiskThreshold</li> <li>▶ RiskThresholdLevel</li> <li>▶ Role</li> <li>▶ RoleRate</li> <li>▶ RoleLimit</li> <li>▶ Shift</li> <li>▶ ThresholdParameter</li> <li>▶ UDFCode</li> <li>▶ UDFType</li> <li>▶ UnitOfMeasure</li> <li>▶ WBSCategory</li> </ul>	
	<p>ProjectSpecific</p> <ul style="list-style-type: none"> <li>▶ Activity</li> <li>▶ ActivityCode</li> <li>▶ ActivityCodeType</li> <li>▶ ActivityExpense</li> <li>▶ ActivityNote</li> <li>▶ ActivityPeriodActual</li> <li>▶ ActivityRisk</li> <li>▶ ActivityStep</li> <li>▶ Calendar</li> <li>▶ ExtRelationship</li> <li>▶ ProjectBudgetChang</li> </ul>	

	<ul style="list-style-type: none"> <li>eLog</li> <li>▶ ProjectFunding</li> <li>▶ ProjectIssue</li> <li>▶ ProjectNote</li> <li>▶ ProjectResource</li> <li>▶ ProjectResourceQuantity</li> <li>▶ ProjectSpendingPlan</li> <li>▶ ProjectThreshold</li> <li>▶ Relationship</li> <li>▶ ResourceAssignment</li> <li>▶ ResourceAssignmentPeriodActual</li> <li>▶ Risk</li> <li>▶ RiskImpact</li> <li>▶ RiskResponseAction</li> <li>▶ RiskResponseActionImpact</li> <li>▶ RiskResponsePlan</li> <li>▶ WBS</li> <li>▶ WBSMilestone</li> </ul>	
--	---	--

Output:

Message: UpdateExistingProjectResponse

Elements:

Field	Type	Description
LogFile	base64Binary	Contains the logging information from the UpdateExistingProject operation.
ErrorMessage	string	If an exception is thrown, ErrorMessage contains the message part of the exception.
Success	boolean	Boolean flag that indicates whether the UpdateExistingProject operation was successful.

# ImportOptionsTemplate Service

## Operations:

***ReadImportOptionsTemplates Operation*** (on page 565)

***getFieldLengthImportOptionsTemplate Operation*** (on page 566)

## WSDL: ImportOptionsTemplate.wsdl

Primary Key Field: ImportTemplateId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ImportOptionsTemplate/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6/ws/services/ImportOptionsTemplateService?wsdl>

<https://<hostname>:<port number>/p6/ws/services/ImportOptionsTemplateService?wsdl>

## Java Client Stub Class:

`com.primavera.ws.p6.import.ImportOptionsTemplateService`

## Description:

Import options templates

## ReadImportOptionsTemplates Operation

**Service:** *ImportOptionsTemplate Service* (on page 565)

Style: Document/literal wrapped

Input:

Message: ReadImportOptionsTemplates

Elements: ReadImportOptionsTemplates elements that contain the following elements:

Field	Type	Description
Field	ImportOptionsTemplateFieldtype	The fields in the template
Filter	string	The filters in the template
OrderBy	string	The order in which the data is organized in the template.

Output:

Message: ReadImportOptionsTemplatesResponse

Elements:

Field	Type	Description
Field	string	The fields in the template.

### getFieldLengthImportOptionsTemplate Operation

**Service:** *ImportOptionsTemplate Service (on page 565)*

Style: Document/literal wrapped

Input:

Message: getFieldLengthImportOptionsTemplate

Elements: getFieldLengthImportOptionsTemplate elements that contain the following elements:

Field	Type	Description
Field	string	The field in the template.

Output:

Message: ReadImportOptionsTemplatesResponse

Elements:

Field	Type	Description
Return	int	The length of the field in the template.

## ImportOptionsTemplate Fields

Field	Type	Read Only	Filterable Orderable	Description
ImportTemplateId	ObjectId	X	X	The unique ID generated by the system.
ImportOptionsTemplateName	String	x	x	The name of the template.
ViewData	String	x		The content of the template.
ImportOptionsTemplateType	String	x	x	The content of the template.

## MSPTemplate Service

### Operations:

***ReadMSPTemplates Operation*** (on page 568)

***getFieldLengthMSPTemplate Operation*** (on page 568)

### WSDL: MSPTemplate.wsdl

Primary Key Field: MSPTemplateId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/MSPTemplate/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6/ws/services/MSPTemplateService?wsdl>

<https://<hostname>:<port number>/p6/ws/services/MSPTemplateService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.import.MSPTemplateService`

### Description:

Import options templates.

## ReadMSPTemplates Operation

**Service:** *MSPTemplate Service (on page 567)*

Style: Document/literal wrapped

Input:

Message: ReadMSPTemplates

Elements: ReadMSPTemplates elements that contain the following elements:

Field	Type	Description
Field	MSPTemplateFieldType	The fields in the MSP template.
Filter	string	The filters in the MSP template.
OrderBy	string	The OrderBy clause used in the MSP template.

Output:

Message: ReadMSPTemplatesResponse

Elements: One or more MSP templates

Field	Type	Description
MSPTemplate	MSPTemplate	One or more MSP Templates.

## getFieldLengthMSPTemplate Operation

**Service:** *MSPTemplate Service (on page 567)*

Style: Document/literal wrapped

Input:

Message: getFieldLengthMSPTemplate

Elements: getFieldLengthMSPTemplate elements that contain the following elements:



Field	Type	Description
Field	string	The field in the template.

Output:

Message: getFieldLengthMSPTemplateResponse

Elements:

Field	Type	Description
Return	int	The length of the field in the MSP template.

## MSPTemplate Fields

Field	Type	Read Only	Filterable Orderable	Description
MSPTemplateId	ObjectId	X	X	The unique ID generated by the system.
MSPTemplateName	String	x	x	The name of the template.
ViewData	LongString	x		The content of the template.
MSPTemplateType	String	x	x	The content of the template.

## Project Services



## Project Service

### Operations:

- CreateProjects Operation** (on page 585)
- ReadProjects Operation** (on page 591)
- UpdateProjects Operation** (on page 596)
- DeleteProjects Operation** (on page 586)
- GetFieldLengthProject Operation** (on page 586)
- CopyBaseline Operation** (on page 576)
- CopyProject Operation** (on page 577)
- CopyProjectAsBaseline Operation** (on page 579)
- CopyProjectAsReflection Operation** (on page 579)
- CopyWBSFromTemplate Operation** (on page 580)
- ConvertProjectToBaseline Operation** (on page 575)
- CalculateProjectScore Operation** (on page 573)
- CreateCopyAsTemplate Operation** (on page 581)
- CreateProjectFromTemplate Operation** (on page 583)
- PublishProject Operation** (on page 591)
- AssignProjectAsBaseline Operation** (on page 572)
- IsProjectLocked Operation** (on page 587)
- UpdateProjectPreferences Operation** (on page 592)
- LoadActivitiesNewerThanBaseline Operation** (on page 587)
- LoadActivityUDFValuesNewerThanBaseline Operation** (on page 589)
- LoadActivityCodesNewerThanBaseline Operation** (on page 588)
- LoadAllResources Operation** (on page 590)

### WSDL: Project.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Project/V2>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/ProjectService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/ProjectService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.project.ProjectService`

### Description:

A project is a temporary endeavor undertaken to create a unique product, service, or result. Projects usually contain a work breakdown structure (WBS) and activities.

The Project service supports user defined fields (UDFs) and codes. Use the UDFValue Service to assign UDFs, and the ProjectCodeAssignment Service to assign project codes.

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### AssignProjectAsBaseline Operation

Description: Converts the provided project to a baseline. The project provided as a parameter will become a BaselineProject.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: AssignProjectAsBaseline

Elements: ObjectId

Required elements: The following elements are required when creating the Project object:

Field	Type	Description
OriginalProjectObjectId	int	The unique identifier of the project that is the project

		baseline.
TargetProjectObjectId	int	The unique identifier of the project to which the newly converted baseline should be assigned.

Output:

Message: AssignProjectAsBaselineResponse

Elements

Field	Type	Description
BaselineProjectObjectId	int	The unique identifier of the baseline project. The BaselineProjectObjectId equals the TargetProjectObjectId passed in as an input parameter.

### CalculateProjectScore Operation

Description: Calculate the project score of a project specified by the ProjectObjectId based on a selected set of ProjectCodeTypeObjectId's. The Project Score feature helps you evaluate projects by using project codes to identify and quantify characteristics that can be used to determine project rankings. P6 EPPM Web Services uses the weighted project code and code values assigned to a project to calculate its score. To use project scoring features, you create weighted project codes that represent project criteria you want to evaluate, for example, projected sales and risk. You further express the possible attributes associated with these evaluation criteria as weighted project code values, for example, projected sales might be described as either high, medium, or low potential. Finally, you assign the appropriate weighted codes and code values to the projects you want to score. Typically, project code and code value weights are set up by a project controls or system administrator.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: CalculateProjectScore

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier of the project to be evaluated.
ProjectCodeTypeObjectId	int	The unique identifier of the ProjectCodeType. You can specify one to many ProjectCodeTypeObjectIds.

Output:

Message: CalculateProjectScoreResponse

Elements:

Field	Type	Description
Score	int	The calculated project score.

**Example:** Suppose you want to evaluate a portfolio of projects based on two criteria: projected sales in a target market and potential income. You create two codes, one called "Projected Sales" and one called "Potential Income". The relative importance of each criteria in your decision making process can be represented by the Project Code Weight. If Projected Sales is more important to you, you might assign that code a weight of 15 and Potential Income a weight of 5. In turn, each of these criteria (project codes) can be assigned various values which can also be assigned weights. Projected Sales might have values of low (with a weight of 1), medium (with a weight of 3) and high (with a weight of 5). Similarly Potential Income might have four values: low (weight 2), medium (weight 4), high (weight 6), very high (weight 10). The table below summarizes the Codes with their weights and values.

Code	Value	Weight
Projected Sales		15
	Low	1
	Medium	3
	High	5
Potential Income		5
	Low	2
	Medium	4

	High	6
	Very High	10

The project score is calculated in three steps. To illustrate the process, suppose Project A has a Projected Sales value of Medium and a Potential Income value of High.

- 1) Determine the maximum possible project score by summing the weight of each code multiplied by the maximum code value weight.

In the example:

- ▶ The Projected Sales code has a weight of 15 and the highest possible Code Value is High with a weight of 5.
- ▶ The Potential Income code has a weight of 5 and the highest possible Code Value is Very High with a weight of 10.

So the Maximum Project score for Project A is:

Sum(Project Code Weight \* maximum Project Code Value Weight)

(Projected Sales weight \* High value weight) + (Potential Income code weight \* Very High value weight)

$$(15 * 5) + (5 * 10) = (75) + (50) = 125$$

- 2) Calculate the score for the project based on the Code Values assigned

In the example:

- ▶ The Projected Sales code has a weight of 15 and the project is assigned a Code Value of Medium with a weight of 3.
- ▶ The Potential Income code has a weight of 5 and the project is assigned a Code Value of High with a weight of 6.

So the Project Score for Project A is:

Sum(Project Code Weight \* assigned Project Code Value Weight)

(Projected Sales Weight \* Medium value weight) + (Potential Income code weight \* High value weight)

$$(15 * 3) + (5 * 6) = (45) + (30) = 75$$

- 3) Calculate the percentage of the total possible score that is represented by the project's score:

In the example:

( Project score / maximum possible project score ) \* 100

$$(75 / 125) * 100 = 60$$

### ConvertProjectToBaseline Operation

Description: Converts the project specified as the OriginalProjectObjectId to a baseline of the project specified as the TargetProjectObjectId.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: ConvertProjectToBaseline

Elements:

Field	Type	Description
TargetProjectObjectId	int	The unique identifier of the project to which the newly converted baseline should be assigned.
OriginalProjectObjectId	int	The unique identifier of the project to be converted into a baseline.

Output:

Message: ConvertProjectToBaselineResponse

Elements:

Field	Type	Description
BaselineProjectObjectId	int	The unique identifier of the baseline project. The BaselineProjectObjectId equals the TargetProjectObjectId passed in as an input parameter.

## CopyBaseline Operation

Description: Copies the baseline specified by the BaselineObjectId belonging to a project specified by the ObjectId and updates the ObjectID with the ID of the newly created baseline.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: CopyBaseline

Elements:

Field	Type	Description
ObjectId	int	The unique identifier of the project which contains the baseline to be copied.
BaselineObjectId	int	The unique identifier of the baseline to copy.



Output:

Message: CopyBaselineResponse

Elements:

Field	Type	Description
ObjectId	int	The unique identifier of the new Baseline.

## CopyProject Operation

Description: Copies the project specified by the ObjectId into the EPS specified by the EPSObjectId and updates the ObjectId with the ID of the newly created project.

**Service:** *Project Service* (on page 571)

Style: Document/literal wrapped

Input:

Message: CopyProject

Elements:

Field	Type	Description
ObjectId	int	The unique identifier of the project you want to copy.
EPSObjectId	int	The unique identifier of the destination EPS that you want the new project to be copied into.
CopyRisks	boolean	Specifies whether risks are to be copied into the new project.
CopyIssuesThresholds	boolean	Specifies whether issues and thresholds are to be copied into the new project.
CopyReports	boolean	Specifies whether reports are to be copied into the new project.
CopyProjectDocuments	boolean	Specifies whether project documents are to be copied into the new project.
CopyFundingSources	boolean	Specifies whether project funding sources are to be copied into the new project.

CopySummaryData	boolean	Specifies whether summary data is copied into the new project. Summary Data is created by calling the SummarizeProject Operation of the Job service.
CopyProjectNotes	boolean	Specifies whether project notes are to be copied into the new project.
CopyWBSMilestones	boolean	Specifies whether WBS milestones are to be copied into the new project.
CopyActivities	boolean	Specifies whether activities are to be copied into the new project.
CopyHighLevelResourcePlanning	boolean	Specifies whether high level resource planning is to be copied into the new project.
CopyResourceAndRoleAssignments	boolean	Specifies whether resources and role assignments are to be copied into the new project.
CopyRelationships	boolean	Specifies whether relationships are to be copied into the new project.
CopyOnlyBetweenCopiedActivities	boolean	Setting the CopyOnlyBetweenCopiedActivities to true limits the copied relationships to those that are within the project (that is relationships between projects are not copied). This field only has an effect if the CopyRelationships field is set to true.
CopyActivityExpenses	boolean	Specifies whether activity expenses are to be copied into the new project.
CopyActivityCodes	boolean	Specifies whether activity codes are to be copied into the new project.
CopyActivityNotes	boolean	Specifies whether activity notes are to be copied into the new project.
CopyActivitySteps	boolean	Specifies whether activity steps are to be copied into the new project.
CopyPastPeriodActuals	boolean	Specifies whether past period actuals are to be copied into the new project.

CopyAssignmentCodes	boolean	Specifies whether assignment codes are to be copied into the new project.
CopyActivityRisks	boolean	Specifies whether activity risks are to be copied into the new project.

Output:

Message: CopyProjectResponse

Elements: ObjectID representing the unique identifier of the new project.

### CopyProjectAsBaseline Operation

Description: Creates a baseline by copying the project specified by the ObjectID as a baseline and assigning the newly created baseline to the project specified by the ObjectID, then updating the ObjectID with the ID of the newly created baseline.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: CopyProjectAsBaseline

Elements: Input ObjectID that represents the unique identifier of the Project you want to copy as a baseline. The input objectID will be updated with the output objectID.

Output:

Message: CopyProjectAsBaselineResponse

Elements: ObjectID that represents the unique identifier of the baseline project.

### CopyProjectAsReflection Operation

Description: Creates a reflection project from the project specified by the ObjectID and updates the ObjectID with the ID of the newly created reflection. A reflection project is a copy of an active project that can be used for what-if analysis. However, unlike a standard what-if project, a reflection offers the capability to review all changes and specify which, if any, should be merged into the active source project.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: CopyProjectAsReflection

Elements: Input ObjectID that represents the unique identifier of the Project you want to copy as a reflection. The input objectID will be updated with the output objectID.

Output:

Message: CopyProjectAsReflectionResponse

Elements: ObjectID that represents the unique identifier of the reflection project.

### CopyWBSFromTemplate Operation

Description: Copies a WBS structure specified by TemplateWbsObjectID from a template and places it under a project specified by ObjectID and updates the ObjectID with the ID of the top node of the newly created WBS structure.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: CopyWBSFromTemplate

Elements: elements that contain the following fields:

Field	Type	Description
ObjectID	int	The unique identifier of an existing project that will contain the copied WBS structure.
TemplateWbsObjectID	int	The unique identifier of the source WBS structure to copy.
CopyWBSNotes	boolean	Determines whether to copy WBS Notebooks.
CopyWBSMilestones	boolean	Determines whether to copy WBS Milestones.
CopyActivities	boolean	Determines whether to copy Activities.
CopyResourceAndRoleAssignments	boolean	Determines whether to copy resource and role assignments.
CopyRelationships	boolean	Determines whether to copy relationships.
CopyActivityCodes	boolean	Determines whether to copy activity codes.
CopyEPSCodesAtProjectLevel	boolean	Determines whether to copy EPS specific activity codes as project specific activity codes if the WBS is being copied to an EPS which does not have access to the EPS specific activity code.

CopyActivityNotes	boolean	Determines whether to copy activity notebooks.
CopyActivitySteps	boolean	Determines whether to copy steps.
CopyAssignmentCodes	boolean	Determines whether to copy assignment codes.

Required fields: The following fields are required when creating the Project object:

- ▶ ObjectID
- ▶ TemplateWbsObjectID

Output:

Message: CopyWBSFromTemplateResponse

Elements:

Field	Type	Description
ObjectID	int	The unique identifier of the new WBS.

### CreateCopyAsTemplate Operation

Description: Creates a copy of the project specified by the ObjectID, makes the copy into a template project and updates the ObjectID with the ID of the newly created template project. The new template project will reside in the EPS node specified by the EPSObjectID.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: CreateCopyAsTemplate

Elements:

Field	Type	Description
ObjectID	int	The unique ID of the project that you are using as the basis for the new template.
EPSObjectID	int	The unique ID of the EPS where the new template will reside.
CopyRisks	boolean	The flag that indicates whether Risks should be copied.

CopyIssuesThresholds	boolean	The flag that indicates whether Issues Thresholds should be copied.
CopyReports	boolean	The flag that indicates whether Reports should be copied.
CopyProjectDocuments	boolean	The flag that indicates whether ProjectDocuments should be copied.
CopyFundingSources	boolean	The flag that indicates whether FundingSources should be copied.
CopySummaryData	boolean	The flag that indicates whether SummaryData should be copied.
CopyProjectNotes	boolean	The flag that indicates whether ProjectNotes should be copied.
CopyActualToPlannedValues	boolean	The flag that indicates whether ActualToPlannedValues should be copied.
CopyWBSMilestones	boolean	The flag that indicates whether WBSMilestones should be copied.
CopyActivities	boolean	The flag that indicates whether Activities should be copied.
CopyHighLevelResourcePlanning	boolean	The flag that indicates whether HighLevelResourcePlanning should be copied.
CopyResourceAndRoleAssignments	boolean	The flag that indicates whether ResourceAndRoleAssignments should be copied.
CopyRelationships	boolean	The flag that indicates whether Relationships should be copied.
CopyOnlyBetweenCopiedActivities	boolean	The flag that indicates whether OnlyBetweenCopiedActivities should be copied.
CopyActivityExpenses	boolean	The flag that indicates whether ActivityExpenses should be copied.

CopyActivityCodes	boolean	The flag that indicates whether ActivityCodes should be copied.
CopyActivityNotes	boolean	The flag that indicates whether ActivityNotes should be copied.
CopyActivitySteps	boolean	The flag that indicates whether ActivitySteps should be copied.
CopyPastPeriodActuals	boolean	The flag that indicates whether PastPeriodActuals should be copied.

Required elements: The following elements are required when creating the Project object:

- ▶ ObjectID
- ▶ EPSObjectID

Output:

Message: CreateCopyAsTemplateResponse

Output:

Field	Type	Description
ObjectID	int	The unique identifier of the new template project.

### CreateProjectFromTemplate Operation

Description: Creates a project in the EPS that is specified by the EPSObjectID from a template project that is specified by the ObjectID and updates the ObjectID with the ID of the newly created project.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: CreateProjectFromTemplate

Elements:

Field	Type	Description
ObjectID	int	The unique ID of the template project that you are using as

		the basis for the new project.
EPSObjectId	int	The unique ID of the EPS where the new project will reside.
CopyRisks	boolean	The flag that indicates whether Risks should be copied.
CopyIssuesThresholds	boolean	The flag that indicates whether Thresholds should be copied.
CopyReports	boolean	The flag that indicates whether Reports should be copied.
CopyProjectDocuments	boolean	The flag that indicates whether ProjectDocuments should be copied.
CopyFundingSources	boolean	The flag that indicates whether FundingSources should be copied.
CopySummaryData	boolean	The flag that indicates whether SummaryData should be copied.
CopyProjectNotes	boolean	The flag that indicates whether ProjectNotes should be copied.
CopyActualToPlannedValues	boolean	The flag that indicates whether ActualToPlannedValues should be copied.
CopyWBSMilestones	boolean	The flag that indicates whether WBSMilestones should be copied.
CopyActivities	boolean	The flag that indicates whether Activities should be copied.
CopyHighLevelResourcePlanning	boolean	The flag that indicates whether HighLevelResourcePlanning should be copied.
CopyResourceAndRoleAssignments	boolean	The flag that indicates whether ResourceAndRoleAssignments should be copied.



CopyRelationships	boolean	The flag that indicates whether Relationships should be copied.
CopyOnlyBetweenCopiedActivities	boolean	The flag that indicates whether OnlyBetweenCopiedActivities should be copied.
CopyActivityExpenses	boolean	The flag that indicates whether Expenses should be copied.
CopyActivityCodes	boolean	The flag that indicates whether ActivityCodes should be copied.
CopyActivityNotes	boolean	The flag that indicates whether ActivityNotes should be copied.
CopyActivitySteps	boolean	The flag that indicates whether ActivitySteps should be copied.
CopyPastPeriodActuals	boolean	The flag that indicates whether PastPeriodActuals should be copied.

Required elements: The following elements are required when creating the Project object:

- ▶ Objectld
- ▶ EPSObjectld

Output:

Message: CreateProjectFromTemplateResponse

Output:

Field	Type	Description
Objectld	int	The unique identifier of the new project.

## CreateProjects Operation

Description: Creates multiple Project objects in the database. You can create up to 1000 Project objects with a single call.

**Service: Project Service (on page 571)**

Style: Document/literal wrapped

Input:

Message: CreateProjects

Elements: Project elements that contain **Project Fields** (on page 597) fields

Required fields: The following fields are required when creating the Project object:

- ▶ ParentEPSObjectld
- ▶ Id
- ▶ Name

Output:

Message: CreateProjectsResponse

Output: Zero to many Objectld elements

### DeleteProjects Operation

Description: Deletes multiple Project objects in the database. You can delete up to 1000 Project objects with a single call.

**Service: Project Service (on page 571)**

Style: Document/literal wrapped

Input:

Message: DeleteProjects

Elements: One to many Objectld elements

Output:

Message: DeleteProjectsResponse

Output: boolean

### GetFieldLengthProject Operation

Description: Returns length of variable character fields for a BO.

**Service: Project Service (on page 571)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProject

Elements: FieldLength

Output:

Message: GetFieldLengthProjectResponse

Elements: One to many FieldLengthProjects.

### IsProjectLocked Operation

Description: Checks whether or not a project is locked.

Service: *Project Service* (on page 571)

Style: Document/literal wrapped

Input:

Message: IsProjectLocked

Elements:

- ObjectId
- IncludeCurrentSession

Output:

Message: IsProjectLockedResponse

Output: Zero to many Project elements that contain Project fields.

### LoadActivitiesNewerThanBaseline Operation

Description: Loads only the activities of the specified project newer than the specified baseline.

Service: **Project Service** (on page 571)

Input:

Message: LoadActivitiesNewerThanBaseline

Elements:

Name	Type	Description	Required
ObjectId	int	The unique identifier for the project.	Yes
Fields	string	One or more <b>Project Fields</b> (on page 597) from the project field list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause to specify the order in which results are returned.	No

BaselineObjectId	int	The unique identifier for the project baseline.	Yes
------------------	-----	---	-----

Output:

Message: LoadActivitiesNewerThanBaselineResponse

Elements:

Name	Type	Description
ActivityObjectIds	string	Ids of returned activities newer than the specified baseline.

### LoadActivityCodesNewerThanBaseline Operation

Description: Loads activity codes of the specified project that are newer than the specified baseline, as well as activity codes without an associated baseline.

**Service:** *Project Service (on page 571)*

Input:

Message: LoadActivityCodesNewerThanBaseline

Elements:

Name	Type	Description	Required
ObjectId	int	The unique identifier for the project.	Yes
Fields	string	One or more <b>Project Fields</b> (on page 597) from the project fields list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No

BaselineObjectId	int	The unique identifier for the project baseline.	Yes
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Output:

Message: LoadActivityCodesNewerThanBaselineResponse

Elements:

Name	Type	Description
ActivityCodeAssignment ObjectIds	string	ObjectIds of returned activity codes newer than the specified baseline.

### LoadActivityUDFValuesNewerThanBaseline Operation

Description: Loads activity UDF values associated to a specified project newer than the specified baseline.

Input:

Message: LoadActivityUDFValuesNewerThanBaseline

Elements:

Name	Type	Description	Required
ObjectId	int	The Unique identifier for the project.	Yes
Fields	string	One or more <b>Project Fields</b> (on page 597) from the project fields list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No
BaselineObjectId	int	The unique identifier for the project baseline.	Yes

Output:

Message: LoadActivityUDFValuesNewerThanBaselineResponse

Elements:

Name	Type	Description
UDFValueObjectIds	string	One or more unique identifiers for UDF values returned on operation completion.

### LoadAllResources Operation

Description: Loads all resources associated with the project.

**Service:** *Project Service (on page 571)*

Input:

Message: LoadAllResources

Elements:

Name	Type	Description	Required
ObjectId	int	The Unique identifier for the project	Yes
Fields	string	One or more <b>Project Fields</b> (on page 597) from the project field list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No

Output:

Message: LoadAllResourcesResponse

Elements:

Name	Type	Description
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ResourceObjectIds	string	One or more unique identifiers of resources returned on completion of the operation.
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## PublishProject Operation

Description: Publishes a project

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: PublishProject

Required fields: The following fields are required when creating the Project object:

- ObjectId

Elements:

Field	Type	Description
ObjectId	int	The unique ID

Output:

Message: PublishProjectResponse

Output: boolean

## ReadProjects Operation

Description: Reads Project objects from the database.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: ReadProjects

Elements: One to many field names from the **Project Fields** (on page 597) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectsResponse

Output: Zero to many Project elements that contain Project fields.

### UpdateProjectPreferences Operation

Description: Updates the preferences of the specified project. Project preferences are a subset of fields from the **Project Fields** (on page 597) list.

**Service:** *Project Service (on page 571)*

Input:

Message: UpdateProjectPreferences

Elements:

Name	Type	Description	Required
ObjectId	int	The unique identifier for the project.	Yes
EnablePublication	boolean	Indicates whether publication is enabled for the project.	No
PublicationPriority	int	Determines the order in which projects are submitted to the service queue, where 1 is highest priority and 100 is lowest priority.	No
LastPublishedOn	string	The date the project was last published.	No
PublishLevel	string	The publish level for the project publication.	No



DeploymentNames	string	Names of deployments associated with the project. This field can be used to add or update multiple deployment names as a comma separated list. The specified deployments must already be set in the application settings.	No
DeleteDeployments	string	Comma separated list of deployments to remove from the project.	No
UnifierEnabledFlag	boolean	Indicates whether the specified project is synced with a Unifier project.	No
UnifierProjectNumber	string	The Unifier project number associated to the project.	No
UnifierScheduleSheetName	string	The Unifier schedule sheet name associated to the project.	No
UnifierDataMappingName	string	The Unifier data mapping name associated to the project.	No

UnifierDeleteActivitiesFlag	boolean	Indicates whether activities removed from the project Schedule are deleted in Unifier.	No
UnifierCBSTasksOnlyFlag	boolean	Indicates whether the project will send only activities with CBS codes assigned to Unifier.	No
ProjectScheduleType	string	The type of schedule the project is based on. It can contain either Duration, Resource, or Cost.	No
SyncWbsHierarchyFlag	boolean	Indicates whether WBS Hierarchy sync is enabled or disabled.	No
ScheduleWBSHierarchyType	string	Specifies WBS Hierarchy type used while a schedule performs on a project. Possible values are Complete, Partial, or Levels.	No
WBSHierarchyLevels	int	Specifies WBS Hierarchy sync level. Possible values are 1 to 50.	No

EnableSummarization	boolean	The option which, when true, directs the Summarizer service to automatically summarize the project. If this is false, the project will be skipped during the summary run.	No
SummaryLevel	string	The summary level for the project while performing project summarization. Possible values are WBS Level and Assignment Level.	No
SummarizeToWBSLevel	int	The maximum level within the project's WBS to perform summarization - defaults to 2.	No
LastSummarizedDate	string	The date the project was last summarized.	No
HistoryLevel	string	The level of historical project data that is stored for use in P6 Analytics. Possible values are None, Project, WBS, and Activity.	No

HistoryInterval	string	The time interval for how historical project data is stored for use in P6 Analytics. Possible values are Month, Week, Quarter, Year, and Financial Period.	No
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Output:

Message: UpdateProjectPreferencesResponse

Elements:

Name	Type	Description
Return	boolean	Indicates whether the operation completed or failed.

## UpdateProjects Operation

Description: Updates multiple Project objects in the database. You can update up to 1000 Project objects with a single call.

**Service:** *Project Service (on page 571)*

Style: Document/literal wrapped

Input:

Message: UpdateProjects

Elements: Project elements that contain **Project Fields** (on page 597) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateProjectsResponse

Output: boolean

## Project Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityDefaultActivityType	string restricted to 'Task Dependent' 'Resource Dependent' 'Level of Effort' 'Start Milestone' 'Finish Milestone' 'WBS Summary'		X	The default type for activities. Possible values are 'Task Dependent', 'Resource Dependent', 'Level of Effort', or 'Milestone'. A 'Task Dependent' activity is scheduled using the activity's calendar rather than the calendars of the assigned resources. A 'Resource Dependent' activity is scheduled using the calendars of the assigned resources. This type is used when several resources are assigned to the activity, but they may work separately. A 'Milestone' is a zero-duration activity without resources, marking a significant project event. A 'Level of Effort' activity has a duration that is determined by its dependent activities. Administration-type activities are typically 'Level of Effort'.
ActivityDefaultCalendarName	string	X	X	The name of the calendar assigned to new activities by default. Can be null for baselines.
ActivityDefaultCalendarObjectId	int		X	The unique ID of the calendar assigned to new activities by default. Can be null for baselines.
ActivityDefaultCostAccountObjectId	int		X	The unique ID of the cost account assigned to new activities and project expenses by default.
ActivityDefaultDurationType	string restricted to 'Fixed Units/Time'		X	The duration type assigned to new activities by default. Valid values are 'Fixed Units/Time', 'Fixed Duration and Units/Time', 'Fixed Units', or 'Fixed Duration

	'Fixed Duration and Units/Time' 'Fixed Units' 'Fixed Duration and Units'			and Units'.
ActivityDefaultPercentCompleteType	string restricted to 'Physical' 'Duration' 'Units' 'Scope'		X	The percent complete type assigned to new activities by default. Valid values are 'Physical', 'Duration', 'Units', and 'Scope'. 'Scope' is only a valid option when P6 is integrated with Oracle Primavera Cloud for scope management.
ActivityDefaultPricePerUnit	double restricted to minInclusive(0 .0)		X	The price used to estimate resource costs for activities that have planned, actual, or remaining units, but no resource assignments. This price is also used to compute costs for activities in cases where resources are assigned but the resources have no prices. Resource cost is computed as the resource units multiplied by the price per time.
ActivityDefaultReviewRequired	boolean			The indicator that determines whether status changes for new activities must be approved by default.
ActivityIdBasedOnSelectedActivity	boolean		X	The flag that indicates how to auto-number activity IDs for new activities-Y/N - Y means use the selected activity's activity ID as prefix, N means use standard auto-numbering based on the prefix, suffix. Default = 'false'
ActivityIdIncrement	int		X	The increment used for auto-numbering of activity IDs. When a new activity is created, the activity ID is automatically generated using auto-numbering. Activity ID auto-numbering concatenates

				the prefix and the suffix, with the suffix incremented to make the code unique. Example: 'A', '1000', '10' yields activity IDs of 'A1010', 'A1020', 'A1030', etc.
ActivityIdPrefix	string restricted to maxLength(20 )		X	The prefix used for auto-numbering of activity IDs. When a new activity is created, the activity ID is automatically generated using auto-numbering. Activity ID auto-numbering concatenates the prefix and the suffix, with the suffix incremented to make the code unique. Example: 'A', '1000', '10' yields activity IDs of 'A1010', 'A1020', 'A1030', etc.
ActivityIdSuffix	int		X	The suffix used for auto-numbering of activity IDs. When a new activity is created, the activity ID is automatically generated using auto-numbering. Activity ID auto-numbering concatenates the prefix and the suffix, with the suffix incremented to make the code unique. Example: 'A', '1000', '10' yields activity IDs of 'A1010', 'A1020', 'A1030', etc.
ActivityPercentCompleteBasedOnActivitySteps	boolean		X	The flag that indicates whether activity physical percent complete is automatically computed from the activity steps completed.
AddActualToRemaining	boolean		X	The flag that indicates whether to add actual to remaining or to subtract actual from at complete when actual units and costs are updated. Default = 'true'
AddedBy	string restricted to maxLength(25 5)		X	The name of the user who added the project to the database.
AllowNegativeActualUnitsFlag	boolean		X	The flag that indicates whether the project can allow the

				negative values for the actual units.
AllowStatusReview	boolean		X	The indicator that determines whether status updates to activities in a project are eligible for manual approval before committing changes.
AnnualDiscountRate	double restricted to minInclusive(0 .0) maxInclusive( 100.0)		X	The user-defined number field that identifies the discount rate for the project.
AnticipatedFinishDate	dateTime		X	The anticipated finish date of Project element. User-entered - not dependent upon any other fields. If there are no children, the anticipated finish date will be the finish date displayed in the columns.
AnticipatedStartDate	dateTime		X	The anticipated start date of Project element. User-entered - not dependent upon any other fields. If there are no children, the anticipated start date will be the start date displayed in the columns.
AssignmentDefaultDrivingFlag	boolean		X	The default flag assigned to new assignments, to indicate whether assignments will drive activity dates.
AssignmentDefaultRateType	string restricted to 'Price / Unit' 'Price / Unit 2' 'Price / Unit 3' 'Price / Unit 4' 'Price / Unit 5'		X	The default rate type when adding resource assignments to a project. Valid values are 'Price / Unit', 'Price / Unit2', 'Price / Unit3', 'Price / Unit4', and 'Price / Unit5'.
CalculateFloatBasedOnFinishDate	boolean	X		The flag that indicates how each activity's float will be calculated with respect to other projects in the scheduling batch. This setting only has an effect when



				scheduling multiple projects at the same time. If true, each activity's float is calculated based on its project's ScheduledFinishDate. If false, then each activity's float is calculated based on the latest ScheduledFinishDate of all of the projects in the scheduling batch.
CheckOutDate	dateTime	X	X	The date on which the project was checked out of the Project Management database.
CheckOutStatus	boolean		X	The flag that indicates that the project is currently checked out to an external file or database and is being managed remotely.
CheckOutUserObjectID	int	X	X	The unique ID of the User that checked out this project.
ComputeTotalFloat Type	string restricted to 'Start Float = Late Start - Early Start' 'Finish Float = Late Finish - Early Finish'  'Smallest of Start Float and Finish Float'	X		The method for calculating total float for all activities. Start Float is the difference between the early and late start dates (Start Float = Late Start - Early Start); Finish Float is the difference between the early and late finish dates (Finish Float = Late Finish - Early Finish); and Smallest of Start Float and Finish Float is the most critical float value.
ContainsSummary Data	boolean	X	X	The flag that indicates that the Project has been summarized.
CostQuantityRecalculateFlag	boolean		X	The flag that, when costs and quantities are linked, indicates whether the quantities should be updated when costs are updated,

CreateDate	dateTime	X	X	The date this project was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this project.
CriticalActivityFloat Limit	double		X	The duration used to determine if an activity is critical. When an activity has total float that is less than or equal to this duration, the activity is marked as critical.
CriticalActivityFloat Threshold	double	X		The maximum float time for activities before they are marked critical.
CriticalActivityPath Type	string restricted to 'Critical Float' 'Longest Path'		X	The critical path type, which indicates how critical path activities are identified for the project, based on either 'Critical Float' or 'Longest Path'.
CriticalFloatThreshold	double	X		The option used for setting the critical float threshold value when scheduling projects.
CurrentBaselineProjectObjectId	int		X	The unique ID of the project's baseline to use for computing summaries.
CurrentBudget	double	X		The sum of the original budget plus the approved and pending budgets from the budget change log.
CurrentVariance	double	X		The difference between the current budget and the total spending plan. Calculated as current budget - total spending plan. Not rolled up
DataDate	dateTime			The current data date for the project. The project status is up to date as of the data date. The data date is modified when project actuals are applied.

DateAdded	dateTime		X	The date on which the project was added to the Project Management database.
DefaultPriceTimeUnits	string restricted to " 'Hour' 'Day' 'Week' 'Month' 'Year' 'Days Hours' 'Hours Minutes'		X	The time units associated with the project's default price per time. Valid values are 'Hour', 'Day', 'Week', 'Month', and 'Year'.
Description	string restricted to maxLength(500)		X	The description of the Project.
DiscountApplicationPeriod	string restricted to 'Month' 'Quarter' 'Year'		X	the timescale for entering ROI spending and benefit plan. Valid values are 'Month', 'Quarter', or 'Year'.
DistributedCurrentBudget	double	X		The current budget values from one level lower.
EarnedValueComputeType	string restricted to " 'Activity Percent Complete' '0 / 100' '50 / 50' 'Custom Percent Complete' 'WBS Milestones Percent Complete' 'Activity		X	The technique used for computing earned-value percent complete for activities within the Project. Valid values are 'Activity Percent Complete', '0 / 100', '50 / 50', 'Custom Percent Complete', 'WBS Milestones Percent Complete', and 'Activity Percent Complete Using Resource Curves'.

	Percent Complete Using Resource Curves'			
EarnedValueETCComputeType	string restricted to "'ETC = Remaining Cost for Activity' 'PF = 1' 'PF = Custom Value' 'PF = 1 / CPI' 'PF = 1 / (CPI * SPI)'		X	The technique for computing earned-value estimate-to-complete for activities within the Project. Valid values are 'ETC = Remaining Cost for Activity', 'Performance Factor = 1', 'Performance Factor = Custom Value', 'Performance Factor = 1 / Cost Performance Index', and 'Performance Factor = 1 / (Cost Performance Index * Schedule Performance Index)'.
EarnedValueETCUserValue	double restricted to minInclusive(0 .0)		X	The user-defined performance factor, PF, for computing earned-value estimate-to-complete. ETC is computed as PF * (BAC - earned value).
EarnedValueUserPercent	double		X	The user-defined percent complete for computing earned value for activities within the Project. A value of, say, 25 means that 25% of the planned amount is earned when the activity is started and the remainder is earned when the activity is completed.
EnablePublication	boolean		X	Enables the project to be processed by the Project Arbiter service.
EnableSummarization	boolean		X	The option which, when true, directs the Summarizer service to automatically summarize the project. If this is false, the project will be skipped during the summary run.

EtlInterval	string restricted to "Immediate" "Scheduled"		X	The time interval for ETL for use in P6 Analytics, could be 'None', 'Scheduled', 'Immediate'.
ExternalCRKey	string			Unique identifier for the project in an external Content Repository.
FinancialPeriodTmplId	int		X	The unique identifier of the financial period calendar assigned to the project.
FinishDate	dateTime	X		The finish date of the project. This is a summary method calculated from fields populated by the Summarizer job service.
FiscalYearStartMonth	int		X	The month that marks the beginning of the fiscal year for the project.
ForecastFinishDate	dateTime	X		The alternate end date to be optionally used by the scheduler. The user sets the alternate end date by dragging the project bar in the Gantt Chart while manually leveling the resource profile in a resource analysis layout.
ForecastStartDate	dateTime	X		The alternate start date to be optionally used by the scheduler. The user sets the alternate start date by dragging the project bar in the Gantt Chart around while manually leveling the resource profile in a resource analysis layout.
GUID	string restricted to pattern '\{[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}\}'		X	The globally unique ID generated by the system.

HasFutureBucketData	boolean	X		The flag that indicates whether a resource assignment in the project has future bucket data.
HistoryInterval	string restricted to " 'Month' 'Week' 'Day' 'Quarter' 'Year' 'Financial Period'		X	The time interval for how historical project data is stored for use in P6 Analytics, could be 'Month', 'Week', 'Quarter', 'Year' and 'Financial Period'.
HistoryLevel	string restricted to " 'None' 'Project' 'WBS' 'Activity'		X	The level of historical project data that is stored for use in P6 Analytics, cab be 'None', 'Project', 'WBS' and 'Activity'.
Id	string restricted to maxLength(40 )		X	The short code assigned to each Project element for identification. Each Project element is uniquely identified by this short code.
IgnoreOtherProjectRelationships	boolean	X		Determines whether to ignore activity relationships between projects.
IndependentETCLaborUnits	double		X	The user-entered ETC total labor.

IndependentETCTotalCost	double		X	The user-entered ETC total cost.
IntegratedType	string restricted to "ERP' 'Fusion' 'Gateway' 'PrimaveraCloudScope'		X	The flag indicating whether the project is integrated with an Enterprise Resource Planning (ERP) system. 'Fusion' indicates the project is integrated with Oracle Fusion. 'ERP' indicates the project is integrated with another ERP system. 'Gateway' indicates the project is integrated with Oracle Primavera Gateway.
IntegratedWBS	boolean			The flag that determines whether the WBS is integrated with another application.
IsTemplate	boolean	X	X	The boolean value indicating if this Project is a template Project.
LastApplyActualsDate	dateTime	X	X	The last date Apply Actuals was run for this project.
LastFinancialPeriodObjectID	int		X	The unique ID of the last closed financial period for the project.

LastLevelDate	dateTime	X	X	The date the project was last leveled.
LastPublishedOn	dateTime	X	X	The date the project was last published.
LastScheduleDate	dateTime	X	X	The date the project was last scheduled.
LastSummarizedDate	dateTime	X	X	The date the project was last summarized.
LastUpdateDate	dateTime	X	X	The date this project was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this project.



LevelAllResources	boolean	X		The resources to level.
LevelDateFlag	boolean	X		Gets the date the project was last leveled.
LevelFloatThresholdCount	int	X		The amount of float you want to maintain when activities are delayed because of resource conflicts. You can type a new number and time unit.
LevelOuterAssign	boolean	X		Include resource assignments in other projects to level.
LevelOuterAssignPriority	int	X		Set the range of the leveling priority that you specify when determining if a resource is over-allocated. Assignments in closed projects are considered.
LevelOverAllocationPercent	double	X		The maximum percentage by which resource availability can be increased during resource leveling. This increased resource availability is used to level if resources on an activity cannot be leveled after using up the activity's float limit. You can type a new percentage.

LevelPriorityList	string	X		Lists the fields by which to prioritize resources when leveling. Priorities are used only when more than one activity competes for the same resource at the same time. Sort Order: The order in which to level resources according to the field names displayed. Double-click the Sort Order field to choose Ascending, Descending, or Hierarchy (option only appears for fields that are hierarchical)
LevelResourceList	string	X		Consists of the list of resources to level.
LevelWithinFloat	boolean	X		To delay activities with resource conflicts only up to their late finish date.
LevelingPriority	int restricted to minInclusive(1 ) maxInclusive( 100)		X	The priority for scheduling.
LimitMultipleFloatPaths	boolean	X		The option used for enabling/disabling limit multiple float paths when scheduling projects.

LinkActualToActualThisPeriod	boolean		X	The flag that indicates whether actual units and costs are linked to actual-this-period units and costs. Setting this field to true asynchronously causes all actual-this-period values to be recalculated for the project via a job service. Default = 'true'.
LinkPercentCompleteWithActual	boolean		X	The flag that indicates whether actual units and cost should be recalculated when percent complete changes. Default = 'false'
LinkPlannedAndAtCompletionFlag	boolean		X	The flag that indicates whether the At Completion Cost/Units should be linked to Planned Cost/Units for not-started activities. Default = 'true'
LocationName	string restricted to maxLength(100)	X	X	The name of the location assigned to the project.
LocationObjectId	int		X	The unique ID of the location assigned to the project.
MakeOpenEndedActivitiesCritical	boolean	X		The option used by the scheduler for automatically leveling resources when scheduling projects.

<p>MaximumMultipleFloatPaths</p>	<p>int restricted to minInclusive(0 ) maxInclusive( 1000)</p>	<p>X</p>	<p>The number of critical float paths to calculate. For example, if you set the field to five, the module calculates the five most critical float paths ending with the activity you selected. The module ranks each float path from most critical to least critical, and stores the value for each activity in the Float Path field. For example, if you calculate five float paths, the module will store a value of one in the Float Path field for each activity in the most critical float path; the module will store a value of five for each activity in the least critical float path. Note: To view the critical float paths after you schedule the project, group activities in the Activity Table by Float Path and sort by Float Path Order. A Float Path value of one indicates that those activities are part of the most critical float path. The Float Path Order value indicates the order in which the activities were processed.</p>
<p>MultipleFloatPaths Enabled</p>	<p>boolean</p>	<p>X</p>	<p>The Boolean value that indicates whether multiple critical float paths (sequences of activities) should be calculated in the project schedule.</p>

MultipleFloatPaths EndingActivityObject ctId	int	X	The activity in the WBS that you want to represent the end of the float paths. Typically, this will be a milestone activity or some other significant activity that has a start date or end date that cannot change. Note: if a value is not assigned, the module will choose an activity based on MultipleFloatPathsUseTotalFloat . If you are calculating multiple paths using Free Float, the module will choose the open-ended activity with the most critical Free Float. If you are calculating multiple paths using Total Float, the module will calculate the Total Float for all activity relationships, then choose the activity with the most critical Relationship Total Float.
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<p>MultipleFloatPaths UseTotalFloat</p>	<p>boolean</p>	<p>X</p>	<p>The Boolean value that decides whether or not to use total float in multiple float path calculations.</p> <p>If True, then based on the activity you want the paths to end on, the module determines which predecessor activity has the most critical Relationship Total Float on the backward pass. The module repeats this process until an activity is reached that has no relationship. The module begins the forward pass from this activity and determines which successor activity has the most critical Relationship Successor Total Float. The module repeats this process until an activity is reached that has no relationship. These activities represent the most critical float path. The process begins again until the remaining sub-critical paths are calculated.</p> <p>If False, then critical float paths are defined based on longest path. The most critical path will be identical to the critical path that is derived when you choose to define critical activities as Longest Path in the General tab. In a multicalendar project, the longest path is calculated by identifying the activities that have an early finish equal to the latest calculated early finish for the project and tracing all driving relationships for those activities back to the project start date. After the most critical path is identified, the module will calculate the remaining sub-critical paths.</p>
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MustFinishByDate	dateTime		X	The date by which all project activities must finish. If entered, it is used as the project late finish date by the project scheduler.
Name	string restricted to maxLength(100)		X	The name of the Project element.
NetPresentValue	double	X		The estimated net value, at the present time for the project
OBSName	string restricted to maxLength(100)	X	X	The name of the person/role in the organization, sometimes referred to as the "responsible manager".
OBSObjectld	int		X	The unique ID of the project manager from the project's OBS tree who is responsible for the Project.
Objectld	int		X	The unique ID generated by the system.
OriginalBudget	double		X	The original budget for the project.
OutOfSequenceScheduleType	string restricted to 'Retained Logic' 'Progress Override' 'Actual Dates'	x	x	The type of logic used to schedule the progressed activities: 'Retained Logic', 'Progress Override', or 'Actual Dates'.

OverallProjectScore	int	X		The project score calculated based on all project code types assigned to this project.
OwnerResourceObjectId	int		X	The unique ID of the Owner Resource of this project.
ParentEPSId	string			The Id of the parent EPS.
ParentEPSName	string			The Name of the new parent EPS.
ParentEPSObjectId	int		X	The unique ID of the parent EPS of this project.
PaybackPeriod	int	X		The PaybackPeriod for the project



PerformancePercentCompleteByLaborUnits	double	X		The performance percent complete for the project according to the labor units. Computed as project Earned Value Labor Units divided by project Budget at Completion (Labor Units) multiplied by 100.
PlannedStartDate	dateTime		X	The planned start date of the project. Used by the project scheduler.
PostResponsePessimisticStart	dateTime		X	The Post Response Pessimistic Start date calculated by Oracle Primavera Cloud during quantitative risk analysis.
PreResponsePessimisticFinish	dateTime		X	The Pre Response Pessimistic Finish date calculated by Oracle Primavera Cloud during quantitative risk analysis.
PreResponsePessimisticStart	dateTime		X	The Pre Response Pessimistic Start date calculated by Oracle Primavera Cloud during quantitative risk analysis.
PricePerUnit	string restricted to maxLength(200)			Field that specifies whether to use role or resource price per unit.

PrimaryResources CanMarkActivitiesAsCompleted	boolean		X	The flag that indicates whether primary resources can mark the project activities as completed. If not selected, a primary resource can only mark an activity as For Review. In this case the project manager reviews the activity and marks it as either Rejected or completed.
PrimaryResources CanUpdateActivity Dates	boolean		X	The flag that indicates whether primary resources can update activity dates in P6 Team Member Web.
ProjectForecastStart Date	dateTime		X	The alternate start date to be optionally used by the scheduler. The user sets the alternate start date by dragging the project bar in the Gantt Chart around while manually leveling the resource profile in a resource analysis layout.
ProjectScheduleType	string restricted to " 'Duration' 'Resource' 'Cost'		X	The type of schedule the project is based on. It can contain either "Duration" or "Resource" or "Cost".
PropertyType	string restricted to " 'ApplyActuals' 'Scheduling' 'ScheduleCheck'	X	X	The project property name associated with the scheduling of projects.

ProposedBudget	double	X		The Proposed Budget, which is the sum of the original budget plus the approved and pending budgets from the budget change log.
PublicationPriority	int		X	A priority value the Project Arbiter service uses to determine the order in which projects are submitted to the service queue, where 1 is highest priority and 100 is lowest priority.
PublishLevel	string restricted to 'WBS Level' 'Assignment Level' "		X	The publish level for the project publication.
RelationshipLagCalendar	string restricted to 'Predecessor Activity Calendar' 'Successor Activity Calendar' '24 Hour Calendar' 'Project Default Calendar'		X	The calendar used to calculate the lag between predecessors and successors for all activities. Valid values are 'Predecessor Activity Calendar', 'Successor Activity Calendar', '24 Hour Calendar', and 'Project Default Calendar'. If you do not select a calendar, the successor activity calendar is used.
ResetPlannedToRemainingFlag	boolean		X	The flag that indicates whether to reset Planned Duration and Units to Remaining Duration and Units, or to reset Remaining Duration and Units to Planned Duration and Units when the Activity Status is or becomes not started. Default = 'true'

ResourceCanBeAssignedToSameActivityMoreThanOnce	boolean		X	The flag that indicates whether a resource can be assigned more than once to the same activity. This is useful when the resource is expected to perform more than one role on an activity, for example, documentation plus QA.
ResourceName	string restricted to maxLength(255)	X	X	The name of the resource assigned as the Project Owner.
ResourcesCanAssignThemselvesToActivities	boolean		X	The flag that indicates whether timesheet application users are allowed to assign themselves to activities in this project.
ResourcesCanAssignThemselvesToActivitiesOutsideOBSAccess	boolean		X	The flag that indicates whether timesheet application users are allowed to assign themselves to activities in this project even if the resource does not have access to the relevant OBS for the activity.
ResourcesCanEditAssignmentPercentComplete	boolean		X	The flag that indicates whether the project's resource update the remaining units or the percent complete for their activities in the timesheet application.
ResourcesCanMarkAssignmentAsCompleted	boolean		X	The flag that indicates whether timesheet resources can mark the assignment as complete.
ResourcesCanStaffRoleAssignment	boolean		X	The flag that indicates whether team-member application users are allowed to staff themselves to role assignment in this project.

ResourcesCanViewInactiveActivities	boolean		X	The flag that indicates whether timesheet resources can view inactive project activities.
ReturnOnInvestment	double	X		The estimated return on investment for the project
ReviewType	string restricted to " 'Anyone Can Review' 'Everyone Must Review'		X	The type of status review required by team members, when the AllowStatusReview flag is true.
RiskExposure	double	X		The calculated exposure value for the project.
RiskLevel	string restricted to 'Very High' 'High' 'Medium' 'Low' 'Very Low'			The risk level assigned to the project: 'Very High', 'High', 'Medium', 'Low', and 'Very Low'.
RiskMatrixName	string restricted to maxLength(40) )	X	X	The name of the risk matrix.
RiskMatrixObjectId	int		X	The unique ID of the associated Risk Matrix.

RiskScore	int	X		The calculated risk score for the project.
ScheduleWBSHierarchyType	string restricted to 'Complete' 'Partial' 'Levels'		X	The option used for specifying WBS Hierarchy sync type.
ScheduledFinishDate	dateTime		X	The early finish date of the latest activity in the project, as computed by the project scheduler.
SourceProjectObjectID	int	X	X	The unique ID of the project from which the reflection project was created, if the current project is a reflection project.
StartDate	dateTime	X		The start date of the project. This is a summary method calculated from fields populated by the Summarizer job service.
StartToStartLagCalculationType	boolean		X	The method used to calculate lag when a start-to-start relationship exists and the predecessor starts out of sequence. Actual Start sets the successor's start according to the time elapsed from the predecessor's actual start (the successor's start date is the data date plus any remaining lag). Early Start sets the successor's start according to the amount of work that the predecessor activity accomplishes (the expired lag is calculated as the number of work periods between the actual start and the data date, and the successor's start

				date is the predecessor's internal early start plus any remaining lag).
Status	string restricted to 'Planned' 'Active' 'Inactive' 'What-If' 'Requested' 'Template'		X	The project status: 'Planned', 'Active', 'Inactive', 'What-If', 'Requested', or 'Template'.
StatusReviewerName	string	X		The names of the users reviewing status updates.
StatusReviewerObjectId	string		X	The unique IDs of the users reviewing status updates.
StrategicPriority	int restricted to minInclusive(1) maxInclusive(10000)		X	The project's priority. The range is from 1 to 10,000.
SummarizeResourcesRolesByWBS	boolean			The flag that indicates whether to create "Resource by WBS" and "Role by WBS" summary records at the project level, on summarization of a given project. <b>Note:</b> Resource by WBS and Role by WBS records is always created for a "Fusion" project.

SummarizeToWBS Level	int restricted to minInclusive(0 ) maxInclusive( 50)		X	The maximum level within the project's WBS to perform summarization - default to 2.
SummarizedDataDate	dateTime		X	The data date of the project when it was last summarized-only updated by summarizer.
SummaryAccountingVarianceByCost	double	X		the Planned Value minus the Actual Cost. A negative value indicates that the Actual Cost has exceeded the Planned Value.
SummaryAccountingVarianceByLabor Units	double	X		the Planned Value Labor Units minus the Actual Units. Negative value indicates that Actual Units have exceeded the Planned Value Labor Units.
SummaryActivityCount	int	X		the number of activities that are currently in progress.
SummaryActualDuration	double	X		The actual duration.
SummaryActualExpenseCost	double	X		The actual costs for all project expenses associated with the project.
SummaryActualFinishDate	dateTime	X		The latest actual finish date of all activities in the project.



SummaryActualLaborCost	double	X		The actual cost for all labor resources assigned to the activity.
SummaryActualLaborUnits	double	X		The actual labor units.
SummaryActualMaterialCost	double	X		The actual units for all material resources assigned to the activity.
SummaryActualNonLaborCost	double	X		The actual units for all nonlabor resources assigned to the activity.
SummaryActualNonLaborUnits	double	X		The actual nonlabor units.
SummaryActualStartDate	dateTime	X		The earliest actual start date of all activities in the project.
SummaryActualThisPeriodCost	double	X		The actual this period cost (will be labor or nonlabor).
SummaryActualThisPeriodLaborCost	double	X		The actual this period labor cost

SummaryActualThisPeriodLaborUnits	double	X		The actual this period labor units.
SummaryActualThisPeriodMaterialCost	double	X		The actual this period material cost.
SummaryActualThisPeriodNonLaborCost	double	X		The actual this period nonlabor cost.
SummaryActualThisPeriodNonLaborUnits	double	X		The actual this period nonlabor units.
SummaryActualTotalCost	double	X		The actual labor cost + actual nonlabor cost + actual expense cost as of the project data date.
SummaryActualValueByCost	double	X		the actual total cost incurred on the activity as of the project data date, computed as Actual Labor Cost + Actual Nonlabor Cost + Actual Material Cost + Actual Expense Cost.
SummaryActualValueByLaborUnits	double	X		the actual total labor units for the activity as of the project data date (that is, actual total cost by labor units).
SummaryAtCompletionDuration	double	X		The duration at completion.

SummaryAtCompletionExpenseCost	double	X		the sum of the actual plus remaining cost for all project expenses associated with the cost account. Computed as Actual Expense Cost + Remaining Expense Cost.
SummaryAtCompletionLaborCost	double	X		The sum of the actual plus remaining costs for all labor resources assigned to the activity. Computed as actual labor cost + remaining labor cost. Same as the planned labor costs if the activity is not started and the actual labor costs once the activity is completed.
SummaryAtCompletionLaborUnits	double	X		The sum of the actual plus remaining units for all labor resources assigned to the activity. Computed as actual labor units + remaining labor units. Same as the planned labor units if the activity is not started and the actual labor units once the activity is completed.
SummaryAtCompletionMaterialCost	double	X		The material cost at completion. It is the sum of the actual plus remaining costs for all material resources assigned to the activity. Computed as actual material cost + remaining material cost. Same as the planned material costs if the activity is not started and the actual material costs once the activity is completed.
SummaryAtCompletionNonLaborCost	double	X		The nonlabor cost at completion. It is the sum of the actual plus remaining costs for all nonlabor resources assigned to the activity. Computed as actual nonlabor cost + remaining nonlabor cost. Same as the planned nonlabor costs if the activity is not started and the actual nonlabor costs once the activity is completed.

SummaryAtCompletionNonLaborUnits	double	X		The nonlabor units at completion. It is the sum of the actual plus remaining units for all nonlabor resources assigned to the activity. Computed as actual nonlabor units + remaining nonlabor units. Same as the planned nonlabor units if the activity is not started and the actual nonlabor units once the activity is completed.
SummaryAtCompletionTotalCost	double	X		The estimated cost at completion for the activity. Computed as the actual total cost plus the estimate-to-complete cost; $EAC = ACWP + ETC$ . Note that the method for computing ETC depends on the earned-value technique selected for the activity's WBS.
SummaryAtCompletionTotalCostVariance	double	X		the Baseline Planned Total Cost - At Completion Total Cost.
SummaryBaselineCompletedActivityCount	int	X		The number of completed activities in the baseline.
SummaryBaselineDuration	double	X		the planned duration for the activity in the primary baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar.

SummaryBaselineExpenseCost	double	X		the planned cost for all project expenses associated with the activity in the primary baseline. Computed as the baseline actual expense cost plus the baseline remaining expense cost.
SummaryBaselineFinishDate	dateTime	X		The current latest finish date of all activities in the project for the current baseline.
SummaryBaselineInProgressActivityCount	int	X		The number of in-progress activities in the baseline.
SummaryBaselineLaborCost	double	X		the planned cost for all labor resources assigned to the activity in the primary baseline. Computed from the baseline At Completion labor units. If no resources are assigned, computed as the activity Baseline Planned Labor Units * Project Default Price / Time.
SummaryBaselineLaborUnits	double	X		the planned units for all labor resources assigned to the activity in the primary baseline. Computed as the baseline actual labor units plus the baseline remaining labor units.
SummaryBaselineMaterialCost	double	X		the planned cost for all material resources assigned to the activity in the primary baseline. Computed from the baseline At Completion nonlabor units. If no resources are assigned.
SummaryBaselineNonLaborCost	double	X		the planned cost for all nonlabor resources assigned to the activity in the primary baseline. Computed from the baseline At Completion nonlabor units. If no resources are assigned, computed as the activity Baseline Planned Nonlabor

				Units * Project Default Price / Time.
SummaryBaselineNonLaborUnits	double	X		the planned units for all nonlabor resources assigned to the activity in the primary baseline. Computed as the baseline actual nonlabor units plus the baseline remaining nonlabor units.
SummaryBaselineNotStartedActivityCount	int	X		The number of activities not started in the baseline.
SummaryBaselineStartDate	dateTime	X		The current earliest start date of all activities in the Project for the current baseline.
SummaryBaselineTotalCost	double	X		the Planned Total Cost for the activity in the primary baseline, including labor resources, nonlabor resources, and project expenses. Baseline Planned Total Cost = Baseline Planned Labor Cost + Baseline Planned Nonlabor Cost + Baseline Planned Expense Cost.
SummaryBudgetAtCompletionByCost	double	X		the Planned Total Cost through activity completion. Computed as Planned Labor Cost + Planned Nonlabor Cost + Planned Expense Cost, same as the Planned Total Cost.
SummaryBudgetAtCompletionByLaborUnits	double	X		the Baseline Labor Units

SummaryCompletedActivityCount	int	X		the number of activities that have an Actual Finish in the Project.
SummaryCostPercentComplete	double	X		The percent complete of cost for all nonlabor resources assigned. Computed as Actual Nonlabor Cost / At Completion Nonlabor Cost * 100. Always in the range 0 to 100.
SummaryCostPercentOfPlanned	double	X		The activity actual cost percent of planned. Computed as actual total cost / baseline total cost * 100, or equivalently as ACWP / BAC * 100. The value can exceed 100. The baseline total cost is the activity's at completion cost from the current baseline. This field is named SummaryCostPercentOfBudget in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
SummaryCostPerformanceIndexByCost	double	X		the Earned Value divided by the Actual Cost. A value less than 1 indicates that the Actual Cost has exceeded the Planned Value.
SummaryCostPerformanceIndexByLaborUnits	double	X		the Earned Value Labor Units / Actual Labor Units.
SummaryCostVarianceByCost	double	X		the Earned Value minus the Actual Cost. A negative value indicates that the Actual Cost has exceeded the Planned Value.
SummaryCostVarianceByLaborUnits	double	X		the Earned Value Labor Cost minus Actual Value Labor Cost.

SummaryCostVarianceIndex	double	X		The value that is calculated as the Cost Variance divided by Earned Value.
SummaryCostVarianceIndexByCost	double	X		the Cost Variance divided by Earned Value.
SummaryCostVarianceIndexByLaborUnits	double	X		the Cost Variance Labor Units divided by Earned Value Labor Units.
SummaryDurationPercentComplete	double	X		The percent complete of the activity duration. Computed as (planned duration - remaining duration) / planned duration * 100. The planned duration is taken from the current plan, not from the baseline.
SummaryDurationPercentOfPlanned	double	X		The summary actual duration percent of planned of all activities under this project. Computed as actual duration / baseline duration * 100. The value can exceed 100. The Baseline duration is the activity's at complete duration from the current baseline.
SummaryDurationVariance	double	X		The duration between the activity's baseline duration and the at complete duration. Computed as baseline planned duration - at completion duration.
SummaryEarnedValueByCost	double	X		the Budget at Completion * Performance % Complete. The method for computing the Performance Percent Complete depends on the Earned Value technique selected for the activity's WBS. Budget at



				Completion is computed from the primary baseline.
SummaryEarnedValueByLaborUnits	double	X		the portion of the baseline labor units that is actually completed as of the project data date. Computed as Baseline Labor Units * Performance % Complete. The planned labor units performed is essentially the labor units Earned Value for the activity. The method for computing the Performance % Complete depends on the Earned Value technique selected for the activity's WBS. The Baseline Labor Units is taken from the current baseline.
SummaryEstimateAtCompletionByCost	double	X		the Actual Cost plus the Estimate to Complete Cost. The method for computing Estimate to Complete depends on the Earned Value technique selected for the activity's WBS.
SummaryEstimateAtCompletionByLaborUnits	double	X		the Actual Labor Units + Estimate To Complete Labor Units. (Estimate To Complete Labor Units is calculated based off of the Earned Value setting on the Project.)
SummaryEstimateAtCompletionHighPercentByLaborUnits	double	X		the high forecast of Estimate At Completion (EAC) by labor units.
SummaryEstimateAtCompletionLowPercentByLaborUnits	double	X		the low forecast of Estimate At Completion (EAC) by labor units.

SummaryEstimateToCompleteByCost	double	X		the Remaining Total Cost for the activity or the Performance Factor * (Budget at Completion - Earned Value), depending on the Earned Value technique selected for the activity's WBS (calculated from the primary baseline).
SummaryEstimateToCompleteByLaborUnits	double	X		the estimated quantity to complete the activity. Computed as either the remaining total units for the activity, or as Performance Factor * (Baseline Planned Labor Units - Planned Quantity of Work Performed), depending on the Earned Value Technique selected for the activity's WBS.
SummaryExpenseCostPercentComplete	double	X		The percent complete of cost for all expenses associated with the project. It is computed as Actual Expense Cost / At Complete Expense Cost * 100, and it is always in the range of 0 to 100.
SummaryExpenseCostVariance	double	X		the Baseline Planned Expense Cost - At Completion Expense Cost (At Completion Expense Cost = Actual Expense Cost + Remaining Expense Cost).
SummaryFinishDateVariance	double	X		The duration between the finish date in the current project and the baseline finish date. Calculated as finish date - baseline finish date.
SummaryInProgressActivityCount	int	X		the number of activities that are currently in progress.
SummaryLaborCostPercentComplete	double	X		The percent complete of cost for all labor resources assigned to the project. It is computed as Actual Labor Cost / At Complete Labor Cost * 100, and it is

				always in the range of 0 to 100.
SummaryLaborCostVariance	double	X		the Baseline Planned Labor Cost - At Completion Labor Cost.
SummaryLaborUnitsPercentComplete	double	X		The percent complete of units for all labor resources for the Project. Computed as actual labor units / at complete labor units * 100. Always in the range 0 to 100.
SummaryLaborUnitsVariance	double	X		The difference between baseline labor units and at completion labor units. Calculated as baseline labor units - at completion labor units.
SummaryLevel	string restricted to 'WBS Level' 'Assignment Level'		X	The summary level for the project while performing project summarization.
SummaryNonLaborCostPercentComplete	double	X		The percent complete of cost for all non-labor resources assigned to the project. It is computed as Actual Nonlabor Cost / At Complete Nonlabor Cost * 100, and it is always in the range of 0 to 100.
SummaryNonLaborUnitsPercentComplete	double	X		The percent complete of units for all nonlabor resources for the Project. Computed as Actual Nonlabor Cost / At Completion Nonlabor Cost * 100. Always in the range 0 to 100.

SummaryNonLaborUnitsVariance	double	X		The difference between baseline nonlabor units and at completion non labor units. Calculated as baseline nonlabor units - at completion nonlabor units.
SummaryNotStartedActivityCount	int	X		the number of activities that are currently not started.
SummaryPerformancePercentCompleteByCost	double	X		the percent complete of performance for all labor resources, nonlabor resources, and expenses. Computed as Earned Value / Budget At Completion * 100. Always in the range 0 to 100.
SummaryPerformancePercentCompleteByLaborUnits	double	X		the percent complete of performance for all labor resources. Computed as earned value labor units / baseline labor units * 100. Always in the range 0 to 100.
SummaryPlannedCost	double	X		The sum of all planned expense, non labor, labor, and material costs in the project.
SummaryPlannedDuration	double	X		The total working days between planned start and finish dates in the project.
SummaryPlannedExpenseCost	double	X		The sum of all planned expense costs in the project.
SummaryPlannedFinishDate	dateTime	X		The latest planned finish date of all activities in the project.

SummaryPlannedLaborCost	double	X		The sum of all planned labor costs in the project.
SummaryPlannedLaborUnits	double	X		The sum of all planned labor units in the project.
SummaryPlannedMaterialCost	double	X		The sum of all planned material costs in the project.
SummaryPlannedNonLaborCost	double	X		The sum of all planned non labor costs in the project.
SummaryPlannedNonLaborUnits	double	X		The sum of all planned non labor units in the project.
SummaryPlannedStartDate	dateTime	X		The earliest planned start date of all activities in the project.
SummaryPlannedValueByCost	double	X		the Budget at Completion * Schedule % Complete. The Schedule % Complete specifies how much of the activity's baseline duration has been completed so far. Budget at Completion is computed from the primary baseline

SummaryPlannedValueByLaborUnits	double	X		the portion of the baseline labor units that is scheduled to be completed as of the project data date. Computed as Baseline Labor Units * Schedule % Complete. The Schedule % Complete specifies how much of the activity's baseline duration has been completed so far. The Baseline Labor Units is taken from the current baseline.
SummaryProgressFinishDate	dateTime	X		the date the activity is expected to be finished according to the progress made on the activity's work products. The expected finish date is entered manually by people familiar with progress of the activity's work products.
SummaryRemainingDuration	double	X		The total working time from the Project remaining start date to the remaining finish date.
SummaryRemainingExpenseCost	double	X		The remaining costs for all project expenses associated with the activities in the Project.
SummaryRemainingFinishDate	dateTime	X		The date the resource is scheduled to finish the remaining work for the activity. This date is computed by the project scheduler but can be updated manually by the project manager. Before the activity is started, the remaining finish date is the same as the planned finish date.
SummaryRemainingLaborCost	double	X		The remaining costs for all labor resources assigned to the activities. The remaining cost reflects the cost remaining for the Project.

SummaryRemainingLaborUnits	double	X		The remaining units for all labor resources assigned to the activities. The remaining units reflects the work remaining to be done for the Project.
SummaryRemainingMaterialCost	double	X		The remaining material costs for all project expenses associated with the activities in the Project.
SummaryRemainingNonLaborCost	double	X		The remaining nonlabor costs for all project expenses associated with the activities in the Project.
SummaryRemainingNonLaborUnits	double	X		The remaining units for all nonlabor resources assigned to the activities. The remaining units reflects the work remaining to be done for the Project.
SummaryRemainingStartDate	dateTime	X		The earliest remaining start of all activities assigned to the Project.
SummaryRemainingTotalCost	double	X		The sum of all remaining total costs in the Project.
SummarySchedulePercentComplete	double	X		The measure that indicates how much of the Project baseline duration has been completed so far. Computed based on where the current data date falls between the activity's baseline start and finish dates. If the data date is earlier than the baseline start, the schedule % complete is 0. If the data date is later than the baseline finish, the schedule % complete is 100. The schedule % complete indicates

				how much of the Project duration should be currently completed, relative to the selected baseline.
SummarySchedulePercentCompleteByLaborUnits	double	X		the percent complete of units for all labor resources. Computed as Actual Labor Units / At Completion Labor Units * 100. Always in the range 0 to 100.
SummarySchedulePerformanceIndexByCost	double	X		the Earned Value divided by the Planned Value. A value less than 1 indicates that less work was actually performed than was scheduled.
SummarySchedulePerformanceIndexByLaborUnits	double	X		the Earned Value Labor Units divided by Planned Value Labor Units.
SummaryScheduleVarianceByCost	double	X		the Earned Value divided by the Planned Value. A negative value indicates that less work was actually performed than was scheduled.
SummaryScheduleVarianceByLaborUnits	double	X		the Earned Value Labor Units minus the Planned Value Labor Units.
SummaryScheduleVarianceIndex	double	X		The value that is calculated as the Schedule Variance Labor Units divided by Planned Value Labor Units.
SummaryScheduleVarianceIndexByCost	double	X		the Schedule Variance divided by the Planned Value.



SummarySchedule VarianceIndexByLa borUnits	double	X		the Schedule Variance Labor Units divided by the Planned Value Labor Units.
SummaryStartDate Variance	double	X		The duration between the start date in the current project and the baseline start date. Calculated as start date - baseline start date.
SummaryToCompl etePerformanceInd exByCost	double	X		the (Budget at Completion - Earned Value) divided by (Estimate at Completion - Actual Cost).
SummaryTotalCost Variance	double	X		The value that is calculated as baseline total cost - total cost.
SummaryTotalFloat	double	X		The amount of time the Project can be delayed before delaying the project finish date. Total float can be computed as late start - early start or as late finish - early finish; this option can be set when running the project scheduler.
SummaryUnitsPerc entComplete	double	X		The percent complete of units for the resource assignments in the Project. Computed as Actual Units / At Complete Units * 100. Always in the range 0 to 100.
SummaryVariance AtCompletionByLa borUnits	double	X		the Baseline Planned Total Labor Units minus Estimate at Completion Labor Units.
SyncWbsHierarchy Flag	boolean		X	The option used for enabling/disabling WBS Hierachy sync.

TeamMemberActivityFields	string restricted to maxLength(512)			The list of activity fields that can be updated by a team member using the P6 Team Member interfaces.
TeamMemberAddNewActualUnits	boolean			The indicator that determines whether team members enter new actual units.
TeamMemberAssignmentOption	string restricted to maxLength(32)			The indicator that determines whether team member can update activity fields, assignment fields, or both using the P6 Team Member interfaces.
TeamMemberAssignmentProficiencyFlag	boolean			The indicator that determines whether to use role assignment proficiency or resource's role proficiency.
TeamMemberCanStatusOtherResources	boolean			The indicator that determines whether team member can status other resource assignments on an activity.
TeamMemberCanUpdateNotebooks	boolean			The indicator that determines whether notebooks can be updated by the team member.
TeamMemberDisplayBaselineDatesFlag	boolean			The indicator that determines whether baseline dates are visible in P6 Team Member interfaces.
TeamMemberDisplayPlannedUnit	boolean			The indicator that determines whether or not a team member can display planned units on activities and assignments.
TeamMemberDisplayTotalFloatFlag	boolean			The indicator that determines whether or not a team member can view the Total Float for an activity.
TeamMemberIncludePrimaryResources	boolean			Primary Resource Flag determines if Team Members status their activities as Primary Resources too.

TeamMemberReadOnlyActivityFields	string restricted to maxLength(512)			The list of activity fields that can be viewed but not updated by a team member using the P6 Team Member interfaces.
TeamMemberResourceAssignmentFields	string restricted to maxLength(512)			The list of assignment fields that can be updated by a team member using the P6 Team Member interfaces.
TeamMemberStepUDFViewableFields	string restricted to maxLength(512)			The list of step user defined fields that can be viewed and updated by a team member using the P6 Team Member interfaces.
TeamMemberStepsAddDeletable	boolean			The flag which determines whether steps can be added or deleted in P6 Team Member interfaces.
TeamMemberViewableFields	string restricted to maxLength(512)			The list of fields that are viewable by a team member using the P6 Team Member interfaces.
TotalBenefitPlan	double	X		The sum of the monthly benefit plan.
TotalBenefitPlanTally	double	X		The sum of the monthly benefit plan tally.
TotalFunding	double	X		The total amount of funding contributed to the project by your funding sources.
TotalSpendingPlan	double	X		The sum of the monthly spending plan.
TotalSpendingPlanTally	double	X		The sum of the monthly spending plan tally.
UnallocatedBudget	double	X		The total current budget minus the distributed current budget.

UndistributedCurrentVariance	double	X		The total spending plan minus the total spending plan tally.
UnifierCBSTasksOnlyFlag	boolean			The flag that indicates whether P6 will only send activities with CBS codes assigned.
UnifierDataMappingName	string restricted to maxLength(200)			The Unifier data mapping name.
UnifierDeleteActivitiesFlag	boolean			The flag that indicates whether activities removed from the P6 Schedule are deleted in Unifier.
UnifierEnabledFlag	boolean			The flag that indicates whether P6 integration with Unifier schedule sheet is enabled.
UnifierProjectName	string			Field to specify Unifier project number.
UnifierProjectNumber	string restricted to maxLength(200)			The Unifier project number.
UnifierScheduleSheetName	string restricted to maxLength(200)			The Unifier schedule sheet name.
UnitPerTimeOvertimeFactor	string restricted to maxLength(200)			Field that specifies to use role or resource unitPerTime and overtime factor.
UseExpectedFinishDates	boolean	x		The option used for setting activity finish dates as the expected finish dates when scheduling projects.

UseProjectBaselineForEarnedValue	boolean		X	The flag that indicates whether earned value should be calculated based on the project baseline or the user's primary baseline. This setting only affects Project Management, not the Integration API or Primavera's Web application.
WBSCategoryObjectID	int		X	The unique ID of the associated WBS category value. Note that the label used for the WBS category is dynamic; it is controlled by the system administrator.
WBSCodeSeparator	string restricted to maxLength(2)		X	The character used to separate the concatenated code fields for the project's WBS tree.
WBSHierarchyLevels	int		X	The option used for specifying WBS Hierarchy sync level
WBSMilestonePercentComplete	double	X		The WBSMilestonePercentComplete field determines whether to calculate earned value by defining milestones at the WBS level and assigning a level of significance or weight to each of them. As progress occurs and you mark each milestone complete, the WBS element's performance percent complete is calculated based on the weight of the milestone.
WBSObjectID	int	X	X	The internal WBS ID of the project. This ID cannot be used to load a WBS object directly.
WebSiteRootDirectory	string restricted to maxLength(120)		X	The root directory for storing project Web site files before they are published to the Web server.
WebSiteURL	string restricted to maxLength(20)		X	The project Web site URL, which is the Web address of the project's website.

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## BaselineProject Service

### Operations:

***ReadBaselineProjects Operation*** (on page 647)

***UpdateBaselineProjects Operation*** (on page 648)

***DeleteBaselineProjects Operation*** (on page 648)

***GetFieldLengthBaselineProject Operation*** (on page 649)

***RestoreBaselineProject Operation*** (on page 649)

***LinkBaselineActivity Operation*** (on page 649)

### WSDL: BaselineProject.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/BaselineProject/V2>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/BaselineProjectService?wsdl>

<https://<hostname>:<port number>/p6ws/services/BaselineProjectService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.baselineproject.BaselineProjectService`

### Description:

A baseline is a complete copy of a project plan that you can compare to the current schedule to evaluate progress. Baselines can be used to perform cost and schedule analysis. Before you update a schedule for the first time, you should create a baseline plan in the Project Management application.

The simplest baseline plan is a complete copy, or snapshot, of the original schedule. This snapshot provides a target against which you can track a project's cost, schedule, and performance. When you create a baseline, you can save a copy of the current project to use as the baseline or you can choose to convert another project in the EPS hierarchy to a baseline for the current project.

You can save an unlimited number of baselines per project; however, the number of baselines you can actually save per project is determined by administrative preference settings, which are typically controlled by the project controls coordinator or administrator. Regardless of the number of baselines you save for a project, at any given time you can select only up to three baselines for comparison purposes. The Baselines feature includes an option for you to specify which baselines you want to use for comparison. You must select a primary baseline. The primary baseline is used for project/activity usage spreadsheets and profiles, as well as earned value calculations. Second and third baselines are not required.

BaselineProjects may not be directly summarized by the summarizer job service. Baseline projects will have summary data if the summarizer job service was used to summarize the project that was used to create the baseline before the baseline was created. The StartDate and FinishDate fields are based on summary data..

This business object supports user defined fields (UDFs) and codes. Use the UDFValue business object to assign UDFs, and the ProjectCodeAssignment business object to assign ProjectCodes.

### CreateBaselineProjects

Description: Creates BaselineProject objects in the database. You can create up to 1000 BaselineProject objects with a single call.

Service: **BaselineProject Service** (on page 646)

Style: Document/literal wrapped

Input:

Message: CreateBaselineProjects

Elements: One to many field names from the **BaselineProject Fields** (on page 650) field list

Required Fields:

ParentEPSObjectld

ld

Name

Output:

Message: CreateBaselineProjectsResponse

Output: Zero to many Objectld elements

### ReadBaselineProjects Operation

Description: Reads BaselineProject objects from the database.

Service: **BaselineProject Service (on page 646)**

Style: Document/literal wrapped

Input:

Message: ReadBaselineProjects

Elements: One to many field names from the **BaselineProject Fields** (on page 650) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadBaselineProjectsResponse

Output: Zero to many BaselineProject elements that contain BaselineProject fields.

### UpdateBaselineProjects Operation

Description: Updates multiple BaselineProject objects in the database. You can update up to 1000 BaselineProject objects with a single call.

**Service:** *BaselineProject Service* (on page 646)

Style: Document/literal wrapped

Input:

Message: UpdateBaselineProjects

Elements: BaselineProject elements that contain **BaselineProject Fields** (on page 650) fields.

Required fields: The Objectid must be specified.

Output:

Message: UpdateBaselineProjectsResponse

Output: boolean

### DeleteBaselineProjects Operation

Description: Deletes multiple BaselineProject objects in the database. You can delete up to 1000 BaselineProject objects with a single call.

**Service:** *BaselineProject Service* (on page 646)

Style: Document/literal wrapped

Input:

Message: DeleteBaselineProjects

Elements: One to many Objectid elements

Output:

Message: DeleteBaselineProjectsResponse

Output: boolean



### GetFieldLengthBaselineProject Operation

Description: Returns length of variable character fields for a BO.

**Service:** *BaselineProject Service (on page 646)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthBaselineProject

Elements: FieldLength

Output:

Message: GetFieldLengthBaselineProjectResponse

Elements: One to many FieldLengthBaselineProjects.

### RestoreBaselineProject Operation

Description: This operation restores a BaselineProject. The BaselineProject and its project unlink and become separate projects.

**Service:** *BaselineProject Service (on page 646)*

Style: Document/literal wrapped

Input:

Message: RestoreBaselineProject

Elements: Objectld

Output:

Message: RestoreBaselineProjectResponse

Elements: Objectld

### LinkBaselineActivity Operation

Description: This operation links a baseline project with its activities.

**Service:** *BaselineProject Service (on page 646)*

Style: Document/literal wrapped

Input:

Message: LinkBaselineActivity

Elements:

Field	Type	Description
ObjectId	int	The unique identifier for the baseline project.
ParmProjectActivityObjectId	int	The unique identifier for an activity of a project.
ParmBaselineProjectActivityObjectId	int	The unique identifier for an activity of BaselineProject.

Output:

Message: LinkBaselineActivityResponse

Output: boolean

### BaselineProject Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityDefaultActivityType	string restricted to 'Task Dependent' 'Resource Dependent' 'Level of Effort' 'Start Milestone' 'Finish Milestone' 'WBS Summary'		X	The default type for activities. Possible values are 'Task Dependent', 'Resource Dependent', 'Level of Effort', or 'Milestone'. A 'Task Dependent' activity is scheduled using the activity's calendar rather than the calendars of the assigned resources. A 'Resource Dependent' activity is scheduled using the calendars of the assigned resources. This type is used when several resources are assigned to the activity, but they may work separately. A 'Milestone' is a zero-duration activity without resources, marking a significant project

Field	Type	Read Only	Filterable Orderable	Description
				event. A 'Level of Effort' activity has a duration that is determined by its dependent activities. Administration-type activities are typically 'Level of Effort'.
ActivityDefaultCalendarObjectId	int		X	The unique ID of the calendar assigned to new activities by default. Can be null for EPS and baselines.
ActivityDefaultCostAccountObjectId	int		X	The unique ID of the cost account assigned to new activities and project expenses by default.
ActivityDefaultDurationType	string restricted to 'Fixed Units/Time' 'Fixed Duration and Units/Time' 'Fixed Units' 'Fixed Duration and Units'		X	The duration type assigned to new activities by default. Valid values are 'Fixed Units/Time', 'Fixed Duration and Units/Time', 'Fixed Units', or 'Fixed Duration and Units'.
ActivityDefaultPercentCompleteType	string restricted to 'Physical' 'Duration' 'Units' 'Scope'		X	The percent complete type assigned to new activities by default. Valid values are 'Physical', 'Duration', 'Units', and 'Scope'. 'Scope' is only a valid option when P6 is integrated with Oracle Primavera Cloud for scope management.
ActivityDefaultPricePerUnit	double restricted to minInclusive(0.0)		X	The price used to estimate resource costs for activities that have planned, actual, or remaining units, but no resource assignments. This price is also used to compute costs for activities in cases where resources are assigned but the

Field	Type	Read Only	Filterable Orderable	Description
				resources have no prices. Resource cost is computed as the resource units multiplied by the price per time.
ActivityDefaultReviewRequired	boolean			The indicator that determines whether status changes for new activities must be approved by default.
ActivityIdBasedOnSelectedActivity	boolean		X	The flag that indicates how to auto-number activity IDs for new activities-Y/N - Y means use the selected activity's activity ID as prefix, N means use standard auto-numbering based on the prefix, suffix. Default = 'N'
ActivityIdIncrement	int		X	The increment used for auto-numbering of activity IDs. When a new activity is created, the activity ID is automatically generated using auto-numbering. Activity ID auto-numbering concatenates the prefix and the suffix, with the suffix incremented to make the code unique. Example: 'A', '1000', '10' yields activity IDs of 'A1010', 'A1020', 'A1030', etc.
ActivityIdPrefix	string restricted to maxLength(20)		X	The prefix used for auto-numbering of activity IDs. When a new activity is created, the activity ID is automatically generated using auto-numbering. Activity ID auto-numbering concatenates the prefix and the suffix, with the suffix incremented to make the code unique. Example: 'A', '1000', '10' yields activity IDs of 'A1010', 'A1020', 'A1030', etc.
ActivityIdSuffix	int		X	The suffix used for auto-numbering of activity IDs.

Field	Type	Read Only	Filterable Orderable	Description
				When a new activity is created, the activity ID is automatically generated using auto-numbering. Activity ID auto-numbering concatenates the prefix and the suffix, with the suffix incremented to make the code unique. Example: 'A', '1000', '10' yields activity IDs of 'A1010', 'A1020', 'A1030', etc.
ActivityPercentCompleteBasedOnActivitySteps	boolean		X	The flag that indicates whether activity physical percent complete is automatically computed from the activity steps completed.
AddActualToRemaining	boolean		X	The flag that indicates whether to add actual to remaining or to subtract actual from at complete when actual units and costs are updated. Default = 'Y'
AddedBy	string restricted to maxLength(32)		X	The name of the user who added the project to the database.
AllowStatusReview	boolean		X	The indicator that determines whether status updates to activities in a project are eligible for manual approval before committing changes.
AnnualDiscountRate	double restricted to minInclusive(0.0) maxInclusive(100.0)		X	The user-defined number field that identifies the discount rate for the project.
AnticipatedFinishDate	dateTime		X	The anticipated finish date of WBS, project and EPS elements. User-entered - not dependent upon any other fields. If there are no children, the anticipated finish

Field	Type	Read Only	Filterable Orderable	Description
				date will be the finish date displayed in the columns.
AnticipatedStartDate	dateTime		X	The anticipated start date of WBS, project and EPS elements. User-entered - not dependent upon any other fields. If there are no children, the anticipated start date will be the start date displayed in the columns.
AssignmentDefaultDrivingFlag	boolean		X	The default flag assigned to new assignments, to indicate whether assignments will drive activity dates.
AssignmentDefaultRateType	string restricted to 'Price / Unit' 'Price / Unit 2' 'Price / Unit 3' 'Price / Unit 4' 'Price / Unit 5'		X	The default rate type when adding resource assignments to a project. Valid values are 'Price / Unit', 'Price / Unit2', 'Price / Unit3', 'Price / Unit4', and 'Price / Unit5'.
BaselineTypeName	string	X		The name of the baseline type for this project baseline. Baseline types are used to categorize project baselines.
BaselineTypeObjectId	int		X	The unique ID of the baseline type.
CheckOutDate	dateTime	X	X	The date on which the baseline project was checked out of the Project Management database.
CheckOutStatus	boolean	X	X	The flag that indicates that the baseline project is currently checked out to an external file or database and is being managed

Field	Type	Read Only	Filterable Orderable	Description
				remotely.
CheckOutUserObjectId	int	X	X	The unique ID of the User that checked out this baseline project.
ContainsSummaryData	boolean	X	X	The flag that indicates that the WBS has been summarized.
CostQuantityRecalculateFlag	boolean		X	The flag that indicates whether quantities should be updated when costs are updated, if costs and quantities are linked.
CreateDate	dateTime	X	X	The date this project baseline was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this project baseline.
CriticalActivityFloatLimit	double restricted to minInclusive(0.0)		X	The duration used to determine if an activity is critical. When an activity has total float that is less than or equal to this duration, the activity is marked as critical.
CriticalActivityPathType	string restricted to 'Critical Float' 'Longest Path'		X	The critical path type, which indicates how critical path activities are identified for the project, based on either 'Critical Float' or 'Longest Path'.
CurrentBudget	double restricted to minInclusive(0.0)	X		The sum of the original budget plus the approved and pending budgets from the budget change log.
CurrentVariance	double	X		The current budget minus the total spending plan.

Field	Type	Read Only	Filterable Orderable	Description
DataDate	dateTime			The current data date for the project. The project status is up to date as of the data date. The data date is modified when project actuals are applied.
DateAdded	dateTime		X	The date on which the project was added to the Project Management database.
DefaultPriceTimeUnits	string restricted to " 'Hour' 'Day' 'Week' 'Month' 'Year' 'Days Hours' 'Hours Minutes'		X	The time units associated with the project's default price per time. Valid values are 'Hour', 'Day', 'Week', 'Month', and 'Year'.
Description	string restricted to maxLength(500)		X	The description of the Project.
DiscountApplicationPeriod	string restricted to 'Month' 'Quarter' 'Year'		X	the timescale for entering ROI spending and benefit plan. Valid values are 'Month', 'Quarter', or 'Year'.
DistributedCurrentBudget	double	X		The sum of the current budget values from one level lower.
EnablePublication	boolean		X	Enables the project to be processed by the Project Arbiter service.



Field	Type	Read Only	Filterable Orderable	Description
EnableSummarization	boolean		X	The flag which, when true, causes the Summarizer service to automatically summarize the project. If this is false, the project will be skipped during the summary run.
FinancialPeriodTemplateId	int		X	The unique identifier of the financial period calendar assigned to the project.
FinishDate	dateTime	X		The finish date of the baseline project. This field depends on summary data that was created when the original project was last summarized before this baseline was created.
FiscalYearStartMonth	int		X	The month that marks the beginning of the fiscal year for the project.
ForecastFinishDate	dateTime	X		The alternate end date to be optionally used by the scheduler).
ForecastStartDate	dateTime	X		The alternate start date to be optionally used by the scheduler.
GUID	string restricted to pattern '\{[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}\}'		X	The globally unique ID generated by the system.
HasFutureBucketData	boolean	X		The flag that indicates whether a resource assignment in the baseline has future bucket data.
HistoryInterval	string		X	The time interval for how

Field	Type	Read Only	Filterable Orderable	Description
	restricted to "Month' Week' Quarter' Year' Financial Period' Daily'			historical project data is stored for use in P6 Analytics, could be 'Month', 'Week', 'Quarter', 'Year' and 'Financial Period'.
HistoryLevel	string restricted to "None' Project' WBS' Activity'		X	The level of historical project data that is stored for use in P6 Analytics, cab be 'None', 'Project', 'WBS' and 'Activity'.
Id	string restricted to maxLength(40)		X	The short code assigned to each WBS element for identification. Each WBS element is uniquely identified by concatenating its own code together with its parents' codes.
IndependentETCLaborUnits	double		X	The user-entered ETC total labor.

Field	Type	Read Only	Filterable Orderable	Description
IndependentETCTotalCost	double		X	The user-entered ETC total cost.
IntegratedWBS	boolean		X	The flag that determines whether the WBS is integrated with another application.
LastBaselineUpdateDate	dateTime		X	The date this project baseline was last changed by Baseline Update in Project Management.
LastFinancialPeriodObjectID	int		X	The unique ID of the last closed financial period for the baseline project.
LastLevelDate	dateTime	X	X	The date the project was last leveled.

Field	Type	Read Only	Filterable Orderable	Description
LastPublishedOn	dateTime	X	X	The date the project was last published.
LastScheduleDate	dateTime	X	X	The date the project was last scheduled.
LastSummarizedDate	dateTime	X	X	The date the project was last summarized.
LastUpdateBaseline Options	string			The last options used when the baseline project was updated by the Update Baseline module.
LastUpdateDate	dateTime	X	X	The date this project baseline was last updated.

Field	Type	Read Only	Filterable Orderable	Description
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this project baseline.
LevelingPriority	int restricted to minInclusive(1) maxInclusive(100)		X	The priority for scheduling.
LinkActualToActualThisPeriod	boolean		X	The flag that determines whether actual units and costs are linked to actual-this-period units and costs. Default = 'Y'
LinkPercentCompleteWithActual	boolean		X	The flag that determines whether actual units and cost should be recalculated when percent complete changes. Default = 'N'
LinkPlannedAndAtCompletionFlag	boolean		X	The flag that indicates whether the At Completion Cost/Units should be linked to Planned Cost/Units for not-started activities. Default = 'Y'

Field	Type	Read Only	Filterable Orderable	Description
LocationName	string restricted to maxLength(100)	X	X	The name of the location assigned to the project.
LocationObjectId	int		X	The unique ID of the location assigned to the project.
MustFinishByDate	dateTime		X	The date by which all project activities must finish. If entered, it is used as the project late finish date by the project scheduler.
Name	string restricted to maxLength(100)		X	The name of the baseline project.
OBSName	string restricted to maxLength(100)	X	X	The name of the person/role in the organization, sometimes referred to as the "responsible manager".

Field	Type	Read Only	Filterable Orderable	Description
OBSObjectld	int		X	The unique ID of the project manager from the project's OBS tree who is responsible for the WBS.
Objectld	int		X	The unique ID generated by the system.
OriginalBudget	double restricted to minInclusive(0.0)		X	The original budget for the baseline project.
OriginalProjectObjectld	int	X	X	The unique ID of the project from which the project baseline was created, if the current project is a project baseline.
OwnerResourceObjectld	int		X	The unique ID of the Owner Resource of this baseline project.

Field	Type	Read Only	Filterable Orderable	Description
ParentEPSObjectId	int		X	The unique ID of the parent EPS of this baseline project.
ParentWbsCode	string	x	x	The short name of the parent EPS of this project.
PlannedStartDate	dateTime		X	The planned start date of the project. Used by the project scheduler.
PrimaryResourcesCanMarkActivitiesAsCompleted	boolean		X	The flag that indicates whether primary resources can mark the project activities as completed. If not selected, a primary resource can only mark an activity as For Review. In this case the project manager reviews the activity and marks it as either Rejected or completed.
ProjectForecastStartDate	dateTime		X	The alternate start date to be optionally used by the scheduler. The user sets the alternate start date by dragging the project bar in the Gantt Chart while manually leveling the resource profile in a resource analysis layout.



Field	Type	Read Only	Filterable Orderable	Description
ProjectScheduleType	string restricted to "Duration' 'Resource' 'Cost'		X	The type of schedule data to send to Primavera Unifier.
ProposedBudget	double	X		The sum of the original budget plus the approved and pending budgets from the budget change log.
PublicationPriority	int		X	A priority value the Project Arbiter service uses to determine the order in which projects are submitted to the service queue, where 1 is highest priority and 100 is lowest priority.
ResetPlannedToRemainingFlag	boolean		X	The flag that indicates whether to reset Planned Duration and Units to Remaining Duration and Units, or to reset Remaining Duration and Units to Planned Duration and Units when the Activity Status is or becomes not started. Default = 'Y'
ResourceCanBeAssignedToSameActivityMoreThanOnce	boolean		X	The flag that indicates whether a resource can be assigned more than once to the same activity. This is useful when the resource is expected to perform more than one role on an activity, for example, documentation plus QA.

Field	Type	Read Only	Filterable Orderable	Description
ResourceName	string restricted to maxLength(25)	X	X	The name of the resource assigned as the Project Owner.
ResourcesCanAssignThemselvesToActivities	boolean		X	The flag that indicates whether timesheet application users are allowed to assign themselves to activities in this project.
ResourcesCanAssignThemselvesToActivitiesOutsideOBSAccess	boolean		X	The flag that indicates whether timesheet application users are allowed to assign themselves to activities in this project even if the resource does not have access to the relevant OBS for the activity.
ResourcesCanEditAssignmentPercentComplete	boolean		X	The flag that indicates whether the project's resource can use the timesheet application to update remaining units or percent complete for their activities.
ResourcesCanStaffRoleAssignment	boolean		X	The flag that indicates whether team-member's application users are allowed to staff themselves to empty role assignments in this project.

Field	Type	Read Only	Filterable Orderable	Description
RiskExposure	double	X		The calculated exposure value for the project.
RiskLevel	string restricted to 'Very High' 'High' 'Medium' 'Low' 'Very Low'			The risk level assigned to the project: 'Very High', 'High', 'Medium', 'Low', and 'Very Low'.
RiskMatrixObjectId	int		X	The unique ID of the associated Risk Matrix.
RiskScore	int	X		The calculated risk score for the project.
ScheduledFinishDate	dateTime		X	The early finish date of the latest activity in the project, as computed by the project scheduler.

Field	Type	Read Only	Filterable Orderable	Description
StartDate	dateTime	X		The start date of the baseline project. This field depends on summary data that was created when the original project was last summarized before this baseline was created.
Status	string restricted to 'Planned' 'Active' 'Inactive' 'What-If' 'Requested' 'Template'		X	The project status: 'Planned', 'Active', 'Inactive', 'What-If', or 'Requested'.
StatusReviewerName	string	X		The the names of the users reviewing status updates.
StatusReviewerObjectId	string		X	The unique IDs of the users reviewing status updates.

Field	Type	Read Only	Filterable Orderable	Description
StrategicPriority	int restricted to minInclusive(1) maxInclusive(10000)		X	The baseline project's priority. The range is from 1 to 10,000.
SummarizeToWBSLevel	int	X	X	The maximum level within the project's WBS to perform summarization - default to 2.
SummarizedDataDate	dateTime	X	X	The data date of the project when it was last summarized-only updated by summarizer.
SummaryAccountingVarianceByCost	double	X		the Planned Value minus the Actual Cost. A negative value indicates that the Actual Cost has exceeded the Planned Value.
SummaryAccountingVarianceByLaborUnits	double	X		the Planned Value Labor Units minus the Actual Units. Negative value indicates that Actual Units have exceeded the Planned Value Labor Units.

Field	Type	Read Only	Filterable Orderable	Description
SummaryActivityCount	int	X		the number of activities that are currently in progress.
SummaryActualDuration	double	X		The actual duration.
SummaryActualExpenseCost	double	X		The actual costs for all project expenses associated with the project.
SummaryActualFinishDate	dateTime	X		The latest actual finish date of all activities in the project.
SummaryActualLaborCost	double	X		The actual cost for all labor resources assigned to the activity.

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<b>Field</b>	<b>Type</b>	<b>Read Only</b>	<b>Filterable Orderable</b>	<b>Description</b>
SummaryActualLaborUnits	double	X		The actual labor units.
SummaryActualMaterialCost	double	X		The actual units for all material resources assigned to the activity.
SummaryActualNonLaborCost	double	X		The actual units for all nonlabor resources assigned to the activity.
SummaryActualNonLaborUnits	double	X		The actual nonlabor units.
SummaryActualStartDate	dateTime	X		The earliest actual start date of all activities in the project.

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Field	Type	Read Only	Filterable Orderable	Description
SummaryActualThisPeriodCost	double	X		The actual this period cost (will be labor or nonlabor).
SummaryActualThisPeriodLaborCost	double	X		The actual this period labor cost
SummaryActualThisPeriodLaborUnits	double	X		The actual this period labor units.
SummaryActualThisPeriodMaterialCost	double	X		The actual this period material cost.
SummaryActualThisPeriodNonLaborCost	double	X		The actual this period nonlabor cost.



Field	Type	Read Only	Filterable Orderable	Description
SummaryActualThisPeriodNonLaborUnits	double	X		The actual this period nonlabor units.
SummaryActualTotalCost	double	X		The actual labor cost + actual nonlabor cost + actual expense cost as of the project data date.
SummaryActualValueByCost	double	X		the actual total cost incurred on the activity as of the project data date, computed as Actual Labor Cost + Actual Nonlabor Cost + Actual Material Cost + Actual Expense Cost.
SummaryActualValueByLaborUnits	double	X		the actual total labor units for the activity as of the project data date (that is, actual total cost by labor units).
SummaryAtCompletionDuration	double	X		The duration at completion.

Field	Type	Read Only	Filterable Orderable	Description
SummaryAtCompletionExpenseCost	double	X		the sum of the actual plus remaining cost for all project expenses associated with the cost account. Computed as Actual Expense Cost + Remaining Expense Cost.
SummaryAtCompletionLaborCost	double	X		The sum of the actual plus remaining costs for all labor resources assigned to the activity. Computed as actual labor cost + remaining labor cost. Same as the planned labor costs if the activity is not started and the actual labor costs once the activity is completed.
SummaryAtCompletionLaborUnits	double	X		The sum of the actual plus remaining units for all labor resources assigned to the activity. Computed as actual labor units + remaining labor units. Same as the planned labor units if the activity is not started and the actual labor units once the activity is completed.
SummaryAtCompletionMaterialCost	double	X		The material cost at completion. It is the sum of the actual plus remaining costs for all material resources assigned to the activity. Computed as actual material cost + remaining material cost. Same as the planned material costs if the activity is not started and the actual material costs once the activity is completed.

Field	Type	Read Only	Filterable Orderable	Description
SummaryAtCompletionNonLaborCost	double	X		The nonlabor cost at completion. It is the sum of the actual plus remaining costs for all nonlabor resources assigned to the activity. Computed as actual nonlabor cost + remaining nonlabor cost. Same as the planned nonlabor costs if the activity is not started and the actual nonlabor costs once the activity is completed.
SummaryAtCompletionNonLaborUnits	double	X		The nonlabor units at completion. It is the sum of the actual plus remaining units for all nonlabor resources assigned to the activity. Computed as actual nonlabor units + remaining nonlabor units. Same as the planned nonlabor units if the activity is not started and the actual nonlabor units once the activity is completed.
SummaryAtCompletionTotalCost	double	X		The estimated cost at completion for the activity. Computed as the actual total cost plus the estimate-to-complete cost; $EAC = ACWP + ETC$ . Note that the method for computing ETC depends on the earned-value technique selected for the activity's WBS.
SummaryAtCompletionTotalCostVariance	double	X		the Baseline Planned Total Cost - At Completion Total Cost.

Field	Type	Read Only	Filterable Orderable	Description
SummaryBaselineCompletedActivityCount	int	X		The number of completed activities in the baseline.
SummaryBaselineDuration	double	X		the planned duration for the activity in the primary baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar.
SummaryBaselineExpenseCost	double	X		the planned cost for all project expenses associated with the activity in the primary baseline. Computed as the baseline actual expense cost plus the baseline remaining expense cost.
SummaryBaselineFinishDate	dateTime	X		The current latest finish date of all activities in the project for the current baseline.

Field	Type	Read Only	Filterable Orderable	Description
SummaryBaselineInProgressActivityCount	int	X		The number of in-progress activities in the baseline.
SummaryBaselineLaborCost	double	X		the planned cost for all labor resources assigned to the activity in the primary baseline. Computed from the baseline At Completion labor units. If no resources are assigned, computed as the activity Baseline Planned Labor Units * Project Default Price / Time.
SummaryBaselineLaborUnits	double	X		the planned units for all labor resources assigned to the activity in the primary baseline. Computed as the baseline actual labor units plus the baseline remaining labor units.
SummaryBaselineMaterialCost	double	X		the planned cost for all material resources assigned to the activity in the primary baseline. Computed from the baseline At Completion nonlabor units. If no resources are assigned.
SummaryBaselineNonLaborCost	double	X		the planned cost for all nonlabor resources assigned to the activity in the primary baseline. Computed from the baseline At Completion nonlabor units. If no resources are assigned, computed as the activity Baseline Planned Nonlabor Units * Project

Field	Type	Read Only	Filterable Orderable	Description
				Default Price / Time.
SummaryBaselineNonLaborUnits	double	X		the planned units for all nonlabor resources assigned to the activity in the primary baseline. Computed as the baseline actual nonlabor units plus the baseline remaining nonlabor units.
SummaryBaselineNotStartedActivityCount	int	X		The number of activities not started in the baseline.
SummaryBaselineStartDate	dateTime	X		The current earliest start date of all activities in the WBS for the current baseline.
SummaryBaselineTotalCost	double	X		the Planned Total Cost for the activity in the primary baseline, including labor resources, nonlabor resources, and project expenses. Baseline Planned Total Cost = Baseline Planned Labor Cost + Baseline Planned Nonlabor Cost + Baseline Planned Expense Cost.

Field	Type	Read Only	Filterable Orderable	Description
SummaryBudgetAtCompletionByCost	double	X		the Planned Total Cost through activity completion. Computed as Planned Labor Cost + Planned Nonlabor Cost + Planned Expense Cost, same as the Planned Total Cost.
SummaryBudgetAtCompletionByLaborUnits	double	X		the Baseline Planned Labor Cost + Baseline Planned Nonlabor Cost + Baseline Planned Expense Cost. Same as the Baseline Planned Total Cost.
SummaryCompletedActivityCount	int	X		the number of activities that have an Actual Finish in the WBS.
SummaryCostPercentComplete	double	X		The percent complete of cost for all nonlabor resources assigned. Computed as Actual Nonlabor Cost / At Completion Nonlabor Cost * 100. Always in the range 0 to 100.
SummaryCostPercentOfPlanned	double	X		The activity actual cost percent of planned. Computed as actual total cost / baseline total cost * 100, or equivalently as ACWP / BAC * 100. The value can exceed 100. The baseline total cost is the activity's at completion cost from the current baseline. This field is named

Field	Type	Read Only	Filterable Orderable	Description
				SummaryCostPercentOfBudget in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
SummaryCostPerformanceIndexByCost	double	X		the Earned Value divided by the Actual Cost. A value less than 1 indicates that the Actual Cost has exceeded the Planned Value.
SummaryCostPerformanceIndexByLaborUnits	double	X		the Earned Value Labor Units / Actual Labor Units.
SummaryCostVarianceByCost	double	X		the Earned Value minus the Actual Cost. A negative value indicates that the Actual Cost has exceeded the Planned Value.
SummaryCostVarianceByLaborUnits	double	X		the Earned Value Labor Cost minus Actual Value Labor Cost.



Field	Type	Read Only	Filterable Orderable	Description
SummaryCostVarianceIndex	double	X		The value that is calculated as the Cost Variance divided by Earned Value.
SummaryCostVarianceIndexByCost	double	X		the Cost Variance divided by Earned Value.
SummaryCostVarianceIndexByLaborUnits	double	X		the Cost Variance Labor Units divided by Earned Value Labor Units.
SummaryDurationPercentComplete	double	X		The activity actual duration percent of planned. Computed as (baseline planned duration - remaining duration) / baseline planned duration * 100. The baseline planned duration is the activity's at complete duration from the primary baseline.
SummaryDurationPercentOfPlanned	double	X		The summary actual duration percent of planned of all activities under this project. Computed as actual duration / baseline duration * 100. The value can exceed 100. The Baseline duration is the activity's at complete duration from the current baseline.

Field	Type	Read Only	Filterable Orderable	Description
SummaryDurationVariance	double	X		The duration between the activity's baseline duration and the at complete duration. Computed as baseline planned duration - at completion duration.
SummaryEarnedValueByCost	double	X		the Budget at Completion * Performance % Complete. The method for computing the Performance Percent Complete depends on the Earned Value technique selected for the activity's WBS. Budget at Completion is computed from the primary baseline.
SummaryEarnedValueByLaborUnits	double	X		the portion of the baseline labor units that is actually completed as of the project data date. Computed as Baseline Labor Units * Performance % Complete. The planned labor units performed is essentially the labor units Earned Value for the activity. The method for computing the Performance % Complete depends on the Earned Value technique selected for the activity's WBS. The Baseline Labor Units is taken from the current baseline.
SummaryEstimateAtCompletionByCost	double	X		the Actual Cost plus the Estimate to Complete Cost. The method for computing Estimate to Complete depends on the Earned Value technique selected for the activity's WBS.

Field	Type	Read Only	Filterable Orderable	Description
SummaryEstimateAtCompletionByLaborUnits	double	X		the Actual Labor Units + Estimate To Complete Labor Units. (Estimate To Complete Labor Units is calculated based off of the Earned Value setting on the WBS.)
SummaryEstimateAtCompletionHighPercentByLaborUnits	double	X		the high forecast of Estimate At Completion (EAC) by labor units.
SummaryEstimateAtCompletionLowPercentByLaborUnits	double	X		the low forecast of Estimate At Completion (EAC) by labor units.
SummaryEstimateToCompleteByCost	double	X		the Remaining Total Cost for the activity or the Performance Factor * (Budget at Completion - Earned Value), depending on the Earned Value technique selected for the activity's WBS (calculated from the primary baseline).
SummaryEstimateToCompleteByLaborUnits	double	X		the estimated quantity to complete the activity. Computed as either the remaining total units for the activity, or as Performance Factor * (Baseline Planned Labor Units - Planned Quantity of Work Performed), depending on the Earned Value Technique selected for the activity's WBS.

Field	Type	Read Only	Filterable Orderable	Description
SummaryExpenseCostPercentComplete	double	X		The percent complete of cost for all expenses associated with the project. It is computed as Actual Expense Cost / At Complete Expense Cost * 100, and it is always in the range of 0 to 100.
SummaryExpenseCostVariance	double	X		the Baseline Planned Expense Cost - At Completion Expense Cost (At Completion Expense Cost = Actual Expense Cost + Remaining Expense Cost).
SummaryFinishDateVariance	double	X		The duration between the finish date in the current project and the baseline finish date. Calculated as finish date - baseline finish date.
SummaryInProgressActivityCount	int	X		the number of activities that are currently in progress.
SummaryLaborCostPercentComplete	double	X		The percent complete of cost for all labor resources assigned to the project. It is computed as Actual Labor Cost / At Complete Labor Cost * 100, and it is always in the range of 0 to 100.

Field	Type	Read Only	Filterable Orderable	Description
SummaryLaborCostVariance	double	X		the Baseline Planned Labor Cost - At Completion Labor Cost.
SummaryLaborUnitsPercentComplete	double	X		The percent complete of units for all labor resources for the WBS. Computed as actual labor units / at complete labor units * 100. Always in the range 0 to 100.
SummaryLaborUnitsVariance	double	X		The difference between baseline labor units and at completion labor units. Calculated as baseline labor units - at completion labor units.
SummaryMaterialCostPercentComplete	double	X		The percent complete of cost for all material resources assigned to the project. It is computed as Actual Material Cost / At Complete Material Cost * 100, and it is always in the range of 0 to 100.
SummaryMaterialCostVariance	double	X		The variance that is calculated as Baseline Material Cost - At Completion Material Cost.

Field	Type	Read Only	Filterable Orderable	Description
SummaryNonLaborCostPercentComplete	double	X		The percent complete of cost for all non-labor resources assigned to the project. It is computed as Actual Nonlabor Cost / At Complete Nonlabor Cost * 100, and it is always in the range of 0 to 100.
SummaryNonLaborCostVariance	double	X		the Baseline Planned Nonlabor Cost - At Completion Nonlabor Cost.
SummaryNonLaborUnitsPercentComplete	double	X		The percent complete of units for all nonlabor resources for the Project. Computed as Actual Nonlabor Cost / At Completion Nonlabor Cost * 100. Always in the range 0 to 100.
SummaryNonLaborUnitsVariance	double	X		The difference between baseline nonlabor units and at completion non labor units. Calculated as baseline nonlabor units - at completion nonlabor units.
SummaryNotStartedActivityCount	int	X		the number of activities that are currently not started.

Field	Type	Read Only	Filterable Orderable	Description
SummaryPerformancePercentCompleteByLaborUnits	double	X		the percent complete of units for the resource assignments in the WBS Computed as Actual Units / At Complete Units * 100. Always in the range 0 to 100.
SummaryPlannedCost	double	X		The sum of all planned expense, non labor, labor, and material costs in the baseline project.
SummaryPlannedDuration	double	X		The total working days between planned start and finish dates in the baseline project.
SummaryPlannedExpenseCost	double	X		The sum of all planned expense costs in the baseline project.
SummaryPlannedFinishDate	dateTime	X		The latest planned finish date of all activities in the baseline project.

Field	Type	Read Only	Filterable Orderable	Description
SummaryPlannedLaborCost	double	X		The sum of all planned labor costs in the baseline project.
SummaryPlannedLaborUnits	double	X		The sum of all planned labor units in the baseline project.
SummaryPlannedMaterialCost	double	X		The sum of all planned material costs in the baseline project.
SummaryPlannedNonLaborCost	double	X		The sum of all planned non labor costs in the baseline project.
SummaryPlannedNonLaborUnits	double	X		The sum of all planned non labor units in the baseline project.



Field	Type	Read Only	Filterable Orderable	Description
SummaryPlannedStartDate	dateTime	X		The earliest planned start date of all activities in the baseline project.
SummaryPlannedValueByCost	double	X		the Budget at Completion * Schedule % Complete. The Schedule % Complete specifies how much of the activity's baseline duration has been completed so far. Budget at Completion is computed from the primary baseline
SummaryPlannedValueByLaborUnits	double	X		the portion of the baseline labor units that is scheduled to be completed as of the project data date. Computed as Baseline Labor Units * Schedule % Complete. The Schedule % Complete specifies how much of the activity's baseline duration has been completed so far. The Baseline Labor Units is taken from the current baseline.
SummaryProgressFinishDate	dateTime	X		the date the activity is expected to be finished according to the progress made on the activity's work products. The expected finish date is entered manually by people familiar with progress of the activity's work products.

Field	Type	Read Only	Filterable Orderable	Description
SummaryRemainingDuration	double	X		The total working time from the WBS remaining start date to the remaining finish date.
SummaryRemainingExpenseCost	double	X		The remaining costs for all project expenses associated with the activities in the WBS.
SummaryRemainingFinishDate	dateTime	X		The date the resource is scheduled to finish the remaining work for the activity. This date is computed by the project scheduler but can be updated manually by the project manager. Before the activity is started, the remaining finish date is the same as the planned finish date.
SummaryRemainingLaborCost	double	X		The remaining costs for all labor resources assigned to the activities. The remaining cost reflects the cost remaining for the WBS.
SummaryRemainingLaborUnits	double	X		The remaining units for all labor resources assigned to the activities. The remaining units reflects the work remaining to be done for the WBS.

Field	Type	Read Only	Filterable Orderable	Description
SummaryRemainingMaterialCost	double	X		The remaining material costs for all project expenses associated with the activities in the WBS.
SummaryRemainingNonLaborCost	double	X		The remaining nonlabor costs for all project expenses associated with the activities in the WBS.
SummaryRemainingNonLaborUnits	double	X		The remaining units for all nonlabor resources assigned to the activities. The remaining units reflects the work remaining to be done for the WBS.
SummaryRemainingStartDate	dateTime	X		The earliest remaining start of all activities assigned to the WBS.
SummaryRemainingTotalCost	double	X		The sum of all remaining total costs in the WBS.

Field	Type	Read Only	Filterable Orderable	Description
SummarySchedulePercentComplete	double	X		The measure that indicates how much of the WBS baseline duration has been completed so far. Computed based on where the current data date falls between the activity's baseline start and finish dates. If the data date is earlier than the baseline start, the schedule % complete is 0. If the data date is later than the baseline finish, the schedule % complete is 100. The schedule % complete indicates how much of the WBS duration should be currently completed, relative to the selected baseline.
SummarySchedulePercentCompleteByLaborUnits	double	X		the percent complete of units for all labor resources. Computed as Actual Labor Units / At Completion Labor Units * 100. Always in the range 0 to 100.
SummarySchedulePerformanceIndexByCost	double	X		the Earned Value divided by the Planned Value. A value less than 1 indicates that less work was actually performed than was scheduled.
SummarySchedulePerformanceIndexByLaborUnits	double	X		the Earned Value Labor Units divided by Planned Value Labor Units.

Field	Type	Read Only	Filterable Orderable	Description
SummaryScheduleVarianceByCost	double	X		the Earned Value divided by the Planned Value. A negative value indicates that less work was actually performed than was scheduled.
SummaryScheduleVarianceByLaborUnits	double	X		the Earned Value Labor Units minus the Planned Value Labor Units.
SummaryScheduleVarianceIndex	double	X		The value that is calculated as the Schedule Variance Labor Units divided by Planned Value Labor Units.
SummaryScheduleVarianceIndexByCost	double	X		the Schedule Variance divided by the Planned Value.
SummaryScheduleVarianceIndexByLaborUnits	double	X		the Schedule Variance Labor Units divided by the Planned Value Labor Units.

Field	Type	Read Only	Filterable Orderable	Description
SummaryStartDateVariance	double	X		The duration between the start date in the current project and the baseline start date. Calculated as start date - baseline start date.
SummaryToCompletePerformanceIndexByCost	double	X		the (Budget at Completion - Earned Value) divided by (Estimate at Completion - Actual Cost).
SummaryTotalCostVariance	double	X		The value that is calculated as baseline total cost - total cost.
SummaryTotalFloat	double	X		The amount of time the WBS can be delayed before delaying the project finish date. Total float can be computed as late start - early start or as late finish - early finish; this option can be set when running the project scheduler.
SummaryUnitsPercentComplete	double	X		The percent complete of units for the resource assignments in the WBS. Computed as Actual Units / At Complete Units * 100. Always in the range 0 to 100.

Field	Type	Read Only	Filterable Orderable	Description
SummaryVarianceAtCompletionByLaborUnits	double	X		the Baseline Planned Total Labor Units minus Estimate at Completion Labor Units.
TeamMemberActivityFields	string restricted to maxLength(512)			The list of activity fields that can be updated by a team member using the P6 Team Member interfaces.
TeamMemberAssignmentOption	string restricted to maxLength(32)			The indicator that determines whether team member can update activity fields, assignment fields, or both using the P6 Team Member interfaces.
TeamMemberResourceAssignmentFields	string restricted to maxlength(512)			The list of assignment fields that can be updated by a team member using the P6 Team Member interfaces.
TeamMemberStepUDFViewableFields	string restricted to maxlength(512)			The list of step user defined fields that can be viewed and updated by a team member using the P6 Team Member interfaces.

Field	Type	Read Only	Filterable Orderable	Description
TeamMemberViewableFields	string restricted to maxLength(512)			The list of fields that are viewable by a team member using the P6 Team Member interfaces.
TotalBenefitPlan	double	X		The sum of the monthly benefit plan.
TotalBenefitPlanTally	double	X		The sum of the monthly benefit plan tally.
TotalSpendingPlan	double	X		The sum of the monthly spending plan.
TotalSpendingPlanTally	double	X		The sum of the monthly spending plan tally.



Field	Type	Read Only	Filterable Orderable	Description
UnallocatedBudget	double	X		The total current budget minus the distributed current budget.
UndistributedCurrent Variance	double	X		The total spending plan minus the total spending plan tally.
WBSCategoryObject Id	int		X	The unique ID of the associated WBS category value. Note that the label used for the WBS category is dynamic; it is controlled by the system administrator.
WBSCodeSeparator	string restricted to maxLength(2)		X	The character used to separate the concatenated code fields for the project's WBS tree.
WBSObjectld	int	X	X	The internal WBS ID of the project. This ID cannot be used to load a WBS object directly.

Field	Type	Read Only	Filterable Orderable	Description
WebSiteRootDirectory	string restricted to maxLength(120)		X	The root directory for storing project Web site files before they are published to the Web server.
WebSiteURL	string restricted to maxLength(200)		X	The project Web site URL, which is the Web address of the project's website.

## UpdateBaselineOption Service

### Operations:

***ReadUpdateBaselineOption Operation*** (on page 699)

***UpdateUpdateBaselineOption Operation*** (on page 699)

***GetFieldLengthUpdateBaselineOption Operation*** (on page 700)

### WSDL: UpdateBaselineOption.wsdl

Primary Key Field: UserObjectId

Target Namespace: http://xmlns.oracle.com/Primavera/P6/WS/UpdateBaselineOption/V1

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/UpdateBaselineOption?wsdl

https://<hostname>:<port number>/p6ws/services/UpdateBaselineOption?wsdl

### Java Client Stub Class:

com.primavera.ws.p6.updatebaselineoption.UpdateBaselineOption

**Description:**

As a project progresses, you might choose to update baseline data without restoring the baseline or creating a new baseline. When a project is in progress, creating a new baseline may not yield accurate comparison results. When you update a baseline, only the data types you select will be updated.

**ReadUpdateBaselineOption Operation**

Description: Reads UpdateBaselineOption objects from the database.

**Service:** *UpdateBaselineOption Service (on page 698)*

Style: Document/literal wrapped

Input:

Message: ReadUpdateBaselineOption

Elements: One to many field names from the **UpdateBaselineOption Fields** (on page 700) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadUpdateBaselineOptionResponse

Output: Zero to many Activity elements that contain Activity fields.

**UpdateUpdateBaselineOption Operation**

Description: Updates multiple UpdateBaselineOption objects in the database. You can update up to 1000 UpdateBaselineOption objects with a single call.

**Service:** *UpdateBaselineOption Service (on page 698)*

Style: Document/literal wrapped

Input:

Message: UpdateUpdateBaselineOption

Elements: UpdateBaselineOption elements that contain **UpdateBaselineOption Fields** (on page 700) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateUpdateBaselineOptionResponse

Output: boolean

### GetFieldLengthUpdateBaselineOption Operation

Description: Returns length of variable character fields for a BO.

**Service:** *UpdateBaselineOption Service (on page 698)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthUpdateBaselineOption

Elements: FieldLength

Output:

Message: GetFieldLengthUpdateBaselineOption

Elements: One to many FieldLengthUpdateBaselineOptions.

### UpdateBaselineOption Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivitiesFilter	String			The option used to update activity IDs of the selected filter when updating the baseline.
ActivitiesFilterLogic	string restricted to maxLength(255)			The option used to update activity filter logic when updating the baseline.
ActivitiesFilterResourceId	string restricted to maxLength(255)			The value used for the 'Resource ID' filter when updating baselines using the 'Activities within the following filters' option.

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ActivitiesFilterRoleId	string restricted to maxLength(255)			The value used for the 'Role ID' filter when updating baselines using the 'Activities within the following filters' option.
ActivitiesFinishingWithinDays	string restricted to maxLength(255)			The value used for the 'Activities finishing within specified days' filter when updating baselines using the 'Activities within the following filters' option.
ActivitiesOccurringWithinDays	string restricted to maxLength(255)			The value used for the 'Activities occurring within specified days' filter when updating baselines using the 'Activities within the following filters' option.
ActivityCodeAssignments	boolean			The option used to update activity code assignments when updating the baseline.

ActivityFilterId	string			The option used to update activity filter id when updating the baseline.
ActivityFilterName	string restricted to maxLength(255)			The option used to update activity filter name when updating the baseline.
ActivityInformation	boolean			The option used to update activity information for existing resource and role assignments when updating the baseline.
ActivityNotebooks	boolean			The option used to update activity information for existing resource and role assignments when updating the baseline.
ActivityRsrcAssignmentCodes	boolean			The option used to update assignment codes when updating the baseline.

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ActivityRsrcAssignmentUdfs	boolean			The option used to update activity resource assignment UDFs when updating the baseline.
ActivityUdfs	boolean			The option used to update activity UDFs when updating the baseline.
ActualUnitsCostWoRsrcAssignment	boolean			The option used to update activity actual units and cost without resource assignments when updating the baseline.
AddNewActivitiesData	boolean			The option used to add new activities with data when updating the baseline.
AddNewRsrcRole	boolean			The option used to add new resource and role assignments when updating the baseline.

AllActivities	boolean			The option used to include all activities when updating the baseline.
BatchModeEnabled	boolean			The option used to enable the batch update mode when updating the baseline.
BudgetUnitsCost	boolean			The option used to update budget units and cost for existing resource and role assignments when updating the baseline.
BudgetUnitsCostWoRsrcAssignment	boolean			The option used to update activity budget units and cost without resource assignment when updating the baseline.
Constraints	boolean			The option used to update activity constraints when updating the baseline



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DatesDurationDatadates	boolean			The option used to update activity dates, duration, and data dates when updating the baseline
DeleteNonExistingActivities	boolean			The option used to delete non existing activities when updating the baseline.
ExpenseUdfs	boolean			the option used to update activity expense UDFs when updating the baseline.
Expenses	boolean			The option used to update activity expenses when updating the baseline.
FilteredActivities	boolean			The option used to include activities in the selected folder when updating the baseline.

GeneralActivityInfo	boolean			The option used to update general activity information when updating the baseline.
IgnoreLastUpdateDate	boolean			The option used to ignore LastUpdateDate when updating the baseline.
IssueUDFs	boolean			The option used to update the Issue UDFs when updating the baseline.
NewActivityInformation	boolean			The option used to include information about new activities when updating the baseline.
NewBudgetUnitsCost	boolean			The option used to update budgeted unit and cost information when updating the baseline.
ObjectId	string		Filterable only	The unique ID of the associated user.

ProjectDetails	boolean			The option used to update the project details when updating the baseline.
ProjectRisksIssuesAndThresholds	boolean			The option used to update the Project Risks Issues and Thresholds when updating the baseline.
ProjectUDFs	boolean			The option used to update the project UDFs when updating the baseline.
Relationships	boolean			The option used to update activity relationships when updating the baseline.
RiskAssignments	boolean			The option used to update risk assignments when updating the baseline.
RiskUDFs	boolean			The option used to update the Risks UDFs when updating the baseline.
Steps	boolean			The option used to update activity steps when updating the baseline.

StepsUdf	boolean			The option used to update activity steps UDFs when updating the baseline.
UpdateExistRsrcRoleAssignment	boolean			The option used to update existing resource and role assignments when updating the baseline.
UpdateExistingActivities	boolean			The option used to update existing activities when updating the baseline.
UserName	boolean	x		The user's login name.
WPDocumentUDFs	boolean		x	The option used to update the WPDocument UDFs when updating the baseline.
WbsAssignments	boolean		x	The option used to update WBS assignments when updating the baseline.

WbsUDFs	boolean		x	The option used to update the WBS UDFs when updating the baseline
WorkProductsAndDocuments	boolean		x	The option used to update the work products and documents when updating the baseline.

## IssueHistory Service

### Operations:

***ReadIssueHistories Operation*** (on page 709)

***GetFieldLengthIssueHistory Operation*** (on page 710)

### WSDL: IssueHistory.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/IssueHistory/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/IssueHistoryService?wsdl>

<https://<hostname>:<port number>/p6ws/services/IssueHistoryService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.issuehistory.IssueHistoryService`

### Description:

Issue histories represent the commentary recorded for a project issue. Separate entry comments are referenced by date and user who recorded the comment. Issue histories may only be added in the Project Management application.

## ReadIssueHistories Operation

Description: Reads IssueHistory objects from the database.

**Service: IssueHistory Service (on page 709)**

Style: Document/literal wrapped

Input:

Message: ReadIssueHistories

Elements: One to many field names from the **IssueHistory Fields** (on page 710) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadIssueHistoriesResponse

Output: Zero to many IssueHistory elements that contain IssueHistory fields.

**GetFieldLengthIssueHistory Operation**

Description: Returns length of variable character fields for a BO.

**Service: IssueHistory Service (on page 709)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthIssueHistory

Elements: FieldLength

Output:

Message: GetFieldLengthIssueHistoryResponse

Elements: One to many FieldLengthIssueHistories.

**IssueHistory Fields**

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this issue history was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this issue history.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is

				related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdate Date	dateTime	X	X	The date this issue history was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this issue history.
Notes	string	X		The notes associated with the issue history.
ProjectIssue Objectld	int	X	X	The unique ID of the associated project issue for this issue history.
ProjectObjectld	int	X	X	The unique ID of the associated project for this issue history.

## ProjectBudgetChangeLog Service

### Operations:

**CreateProjectBudgetChangeLogs Operation** (on page 712)

**ReadProjectBudgetChangeLogs Operation** (on page 712)

**UpdateProjectBudgetChangeLogs Operation** (on page 713)

**DeleteProjectBudgetChangeLogs Operation** (on page 713)

**GetFieldLengthProjectBudgetChangeLog Operation** (on page 714)

### WSDL: ProjectBudgetChangeLog.wsdl

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectBudgetChangeLog/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/ProjectBudgetChangeLogService?wsdl  
https://<hostname>:<port number>/p6ws/services/ProjectBudgetChangeLogService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.projectbudgetchangelog.ProjectBudgetChangeLogService

**Description:**

The project budget change log is used to track changes made from the original budget. You can set the status of the change as pending, approve or not approved, assign a responsible person, and specify the amount of the change. The project budget change log applies to each WBS and project.

### CreateProjectBudgetChangeLogs Operation

Description: Creates multiple ProjectBudgetChangeLog objects in the database. You can create up to 1000 ProjectBudgetChangeLog objects with a single call.

**Service:** *ProjectBudgetChangeLog Service (on page 711)*

Style: Document/literal wrapped

Input:

Message: CreateProjectBudgetChangeLogs

Elements: ProjectBudgetChangeLog elements that contain **ProjectBudgetChangeLog Fields** (on page 714) fields

Required fields: The following fields are required when creating the ProjectBudgetChangeLog object:

- ▶ ProjectObjectId|WBSObjectId
- ▶ ChangeNumber

Output:

Message: CreateProjectBudgetChangeLogsResponse

Output: Zero to many ObjectId elements

### ReadProjectBudgetChangeLogs Operation

Description: Reads ProjectBudgetChangeLog objects from the database.

**Service:** *ProjectBudgetChangeLog Service (on page 711)*

Style: Document/literal wrapped

Input:

Message: ReadProjectBudgetChangeLogs

Elements: One to many field names from the **ProjectBudgetChangeLog Fields** (on page 714) field list



You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programmer's Guide* for additional details.

Output:

Message: ReadProjectBudgetChangeLogsResponse

Output: Zero to many ProjectBudgetChangeLog elements that contain ProjectBudgetChangeLog fields.

### UpdateProjectBudgetChangeLogs Operation

Description: Updates multiple ProjectBudgetChangeLog objects in the database. You can update up to 1000 ProjectBudgetChangeLog objects with a single call.

**Service:** *ProjectBudgetChangeLog Service (on page 711)*

Style: Document/literal wrapped

Input:

Message: UpdateProjectBudgetChangeLogs

Elements: ProjectBudgetChangeLog elements that contain **ProjectBudgetChangeLog Fields** (on page 714) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateProjectBudgetChangeLogsResponse

Output: boolean

### DeleteProjectBudgetChangeLogs Operation

Description: Deletes multiple ProjectBudgetChangeLog objects in the database. You can delete up to 1000 ProjectBudgetChangeLog objects with a single call.

**Service:** *ProjectBudgetChangeLog Service (on page 711)*

Style: Document/literal wrapped

Input:

Message: DeleteProjectBudgetChangeLogs

Elements: One to many ObjectId elements

Output:

Message: DeleteProjectBudgetChangeLogsResponse

Output: boolean

### GetFieldLengthProjectBudgetChangeLog Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ProjectBudgetChangeLog Service (on page 711)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectBudgetChangeLog

Elements: FieldLength

Output:

Message: GetFieldLengthProjectBudgetChangeLogResponse

Elements: One to many FieldLengthProjectBudgetChangeLogs.

### ProjectBudgetChangeLog Fields

Field	Type	Read Only	Filterable Orderable	Description
Amount	double restricted to minInclusive(-9.999999999999999E14) maxInclusive(9.999999999999999E14)		X	The amount of budget change.
ChangeNumber	string restricted to maxLength(32)		X	The change number that is automatically incremented according to when changes are added. This can be changed to any number.
CreateDate	dateTime	X	X	The date this log of budget changes was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this log of budget changes.

Date	dateTime		X	The date of this budget change entry.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdate Date	dateTime	X	X	The date this log of budget changes was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this log of budget changes.
ObjectId	int		X	The unique ID generated by the system.
ProjectId	string restricted to maxLength(20)	X	X	The short code that uniquely identifies the project.
ProjectObjectID	int		X	The unique ID of the associated project.
Reason	string restricted to maxLength(130)		X	The description of the reason for the budget change request.
Responsible	string restricted to maxLength(255)		X	The person responsible for the change.
Status	string		X	The status of this

	restricted to " 'Pending' 'Approved' 'Not Approved'			budget change request. Possible values are 'Pending', 'Approved', and 'Not Approved'.
WBSCode	string restricted to maxLength(40)	X	X	The short code assigned to each WBS element for identification. Each WBS element is uniquely identified by concatenating its own code together with its parents' codes.
WBSName	string restricted to maxLength(100)	X	X	The name of the WBS element.
WBSObject Id	int		X	The unique ID of the WBS element to which the budget change log applies.

## ProjectCodeAssignment Service

### Operations:

**CreateProjectCodeAssignments Operation** (on page 717)

**ReadProjectCodeAssignments Operation** (on page 718)

**UpdateProjectCodeAssignments Operation** (on page 718)

**DeleteProjectCodeAssignments Operation** (on page 717)

**LoadProjects Operation** (on page 304)

**GetFieldLengthProjectCodeAssignment Operation** (on page 718)

### WSDL: ProjectCodeAssignment.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectCodeAssignment/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/ProjectCodeAssignmentService?wsdl  
https://<hostname>:<port number>/p6ws/services/ProjectCodeAssignmentService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.projectcodeassignment.ProjectCodeAssignmentService

**Description:**

A project code assignment business object represents the assignment of a project code to a project. For each project code type, a project may have zero or one project codes assigned.

Note that this business object has a multi-part object ID; its object ID is a combination of its project object ID and its project code object ID.

**CreateProjectCodeAssignments Operation**

Description: Creates multiple ProjectCodeAssignment objects in the database. You can create up to 1000 ProjectCodeAssignment objects with a single call.

**Service:** *ProjectCodeAssignment Service (on page 716)*

Style: Document/literal wrapped

Input:

Message: CreateProjectCodeAssignments

Elements: ProjectCodeAssignment elements that contain **ProjectCodeAssignment Fields** (on page 719) fields

Required fields:

- ▶ ProjectObjectId
- ▶ ProjectCodeObjectId

Output:

Message: CreateProjectCodeAssignmentsResponse

Output: Zero to many ObjectId elements

**DeleteProjectCodeAssignments Operation**

Description: Deletes multiple ProjectCodeAssignment objects in the database. You can delete up to 1000 ProjectCodeAssignment objects with a single call.

**Service:** *ProjectCodeAssignment Service (on page 716)*

Style: Document/literal wrapped

Input:

Message: DeleteProjectCodeAssignments

Elements: One to many ObjectId elements

Output:

Message: DeleteProjectCodeAssignmentsResponse

Output: boolean

### ReadProjectCodeAssignments Operation

Description: Reads ProjectCodeAssignment objects from the database.

**Service:** *ProjectCodeAssignment Service (on page 716)*

Style: Document/literal wrapped

Input:

Message: ReadProjectCodeAssignments

Elements: One to many field names from the **ProjectCodeAssignment Fields** (on page 719) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectCodeAssignmentsResponse

Output: Zero to many ProjectCodeAssignment elements that contain ProjectCodeAssignment fields.

### UpdateProjectCodeAssignments Operation

Description: Updates multiple ProjectCodeAssignment objects in the database. You can update up to 1000 ProjectCodeAssignment objects with a single call.

**Service:** *ProjectCodeAssignment Service (on page 716)*

Style: Document/literal wrapped

Input:

Message: UpdateProjectCodeAssignments

Elements: ProjectCodeAssignment elements that contain **ProjectCodeAssignment Fields** (on page 719) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateProjectCodeAssignmentsResponse

Output: boolean

### GetFieldLengthProjectCodeAssignment Operation

Description: Returns length of variable character fields for a BO.

**Service: ProjectCodeAssignment Service (on page 716)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectCodeAssignment

Elements: FieldLength

Output:

Message: GetFieldLengthProjectProjectCodeAssignmentResponse

Elements: One to many FieldLengthProjectCodeAssignments.

**ProjectCodeAssignment Fields**

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this code assignment was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this code assignment.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this code assignment was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this code assignment.
ProjectCodeDescription	string restricted to maxLength(1	X	X	The description of the associated project code.

	00)			
ProjectCode Objectld	int		X	The unique ID of the associated project code.
ProjectCode TypeName	string restricted to maxLength(6 0)	X	X	The name of the parent project code type.
ProjectCode TypeObjectl d	int	X	X	The unique ID of the parent project code type.
ProjectCode Value	string restricted to maxLength(6 0)	X	X	The value of the associated project code.
Projectld	string restricted to maxLength(4 0)	X	X	The short code that uniquely identifies the associated project.
ProjectName	string restricted to maxLength(1 00)	X	X	The name of the project to which the project code is assigned.
ProjectObjec tld	int		X	The unique ID of the project to which the project code is assigned.

## ProjectFunding Service

### Operations:

**CreateProjectFundings Operation** (on page 721)

**ReadProjectFundings Operation** (on page 721)

**UpdateProjectFundings Operation** (on page 722)

**DeleteProjectFundings Operation** (on page 722)

**GetFieldLengthProjectFunding Operation** (on page 722)



**WSDL: ProjectFunding.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectFunding/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ProjectFundingService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ProjectFundingService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.projectfunding.ProjectFundingService`

**Description:**

An project funding represents the assignment of a funding source to a particular project. The assigned funding source has an amount and fund share, or percentage.

**CreateProjectFundings Operation**

Description: Creates multiple ProjectFunding objects in the database. You can create up to 1000 ProjectFunding objects with a single call.

**Service:** *ProjectFunding Service* (on page 720)

Style: Document/literal wrapped

Input:

Message: CreateProjectFundings

Elements: ProjectFunding elements that contain **ProjectFunding Fields** (on page 723) fields

Required fields:

- ▶ FundingSourceObjectId
- ▶ ProjectObjectId

Output:

Message: CreateProjectFundingsResponse

Output: Zero to many ObjectId elements

**ReadProjectFundings Operation**

Description: Reads ProjectFunding objects from the database.

**Service:** *ProjectFunding Service* (on page 720)

Style: Document/literal wrapped

Input:

Message: ReadProjectFundings

Elements: One to many field names from the **ProjectFunding Fields** (on page 723) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectFundingsResponse

Output: Zero to many ProjectFunding elements that contain ProjectFunding fields.

### UpdateProjectFundings Operation

Description: Updates multiple ProjectFunding objects in the database. You can update up to 1000 ProjectFunding objects with a single call.

**Service:** *ProjectFunding Service (on page 720)*

Style: Document/literal wrapped

Input:

Message: UpdateProjectFundings

Elements: ProjectFunding elements that contain **ProjectFunding Fields** (on page 723) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateProjectFundingsResponse

Output: boolean

### DeleteProjectFundings Operation

Description: Deletes multiple ProjectFunding objects in the database. You can delete up to 1000 ProjectFunding objects with a single call.

**Service:** *ProjectFunding Service (on page 720)*

Style: Document/literal wrapped

Input:

Message: DeleteProjectFundings

Elements: One to many ObjectId elements

Output:

Message: DeleteProjectFundingsResponse

Output: boolean

### GetFieldLengthProjectFunding Operation

Description: Returns length of variable character fields for a BO.

**Service: ProjectFunding Service (on page 720)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectFunding

Elements: FieldLength

Output:

Message: GetFieldLengthProjectFundingResponse

Elements: One to many FieldLengthProjectBudgetFundings.

**ProjectFunding Fields**

Field	Type	Read Only	Filterable Orderable	Description
Amount	double		X	The amount of a funding source that is allocated to the project.
CreateDate	dateTime	X	X	The date this project funding data was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this project funding data.
FundShare	double		X	The percentage of the total fund that is allocated to the project.
FundingSourceName	string restricted to maxLength(100)	X	X	The name of the funding source.
FundingSourceObjectId	int		X	The unique ID of the associated funding source for this project funding.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project

				or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdate Date	dateTime	X	X	The date this project funding data was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this project funding data.
ObjectId	int		X	The unique ID generated by the system.
ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the associated project.
ProjectObjectid	int		X	The unique ID of the associated project source for this project funding.

## ProjectIssue Service

### Operations:

**CreateProjectIssues Operation** (on page 725)

**ReadProjectIssues Operation** (on page 725)

**UpdateProjectIssues Operation** (on page 726)

**DeleteProjectIssues Operation** (on page 726)

**GetFieldLengthProjectIssue Operation** (on page 727)

### WSDL: ProjectIssue.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectIssue/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/ProjectIssueService?wsdl  
 https://<hostname>:<port number>/p6ws/services/ProjectIssueService?wsdl

### Java Client Stub Class:

com.primavera.ws.p6.projectissue.ProjectIssueService

### Description:

Issues are known problems within a project plan that require attention or corrective action. You can manually create issues, or you can generate issues in the Project Management application by defining project thresholds. You can associate these issues with work breakdown structure (WBS) elements, activities, or resources.

When you add an issue, you can assign a priority level, tracking layout, and responsible manager to the issue. An issue's tracking layout assignment is helpful when you want to quickly open the tracking layout that best displays the problem area. An issue's responsible manager assignment identifies the person responsible for addressing the issue. You can record historical details for the issue and e-mail issue details, along with your notes and the issue's history, to any member of the project's staff.

This business object supports user defined fields (UDFs). Use the UDFValue business object to assign UDFs.

## CreateProjectIssues Operation

Description: Creates multiple ProjectIssue objects in the database. You can create up to 1000 ProjectIssue objects with a single call.

**Service:** *ProjectIssue Service* (on page 724)

Style: Document/literal wrapped

Input:

Message: CreateProjectIssues

Elements: ProjectIssue elements that contain **ProjectIssue Fields** (on page 727) fields

Required fields: The following fields are required when creating the ProjectIssue object:

- ▶ ProjectObjectId|WBSObjectId|ActivityObjectId
- ▶ Name

Output:

Message: CreateProjectIssuesResponse

Output: Zero to many ObjectId elements

## ReadProjectIssues Operation

Description: Reads ProjectIssue objects from the database.

**Service:** *ProjectIssue Service (on page 724)*

Style: Document/literal wrapped

Input:

Message: ReadProjectIssues

Elements: One to many field names from the **ProjectIssue Fields** (on page 727) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectIssuesResponse

Output: Zero to many ProjectIssue elements that contain ProjectIssue fields.

### UpdateProjectIssues Operation

Description: Updates multiple ProjectIssue objects in the database. You can update up to 1000 ProjectIssue objects with a single call.

**Service:** *ProjectIssue Service (on page 724)*

Style: Document/literal wrapped

Input:

Message: UpdateProjectIssues

Elements: ProjectIssue elements that contain **ProjectIssue Fields** (on page 727) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateProjectIssuesResponse

Output: boolean

### DeleteProjectIssues Operation

Description: Deletes multiple ProjectIssue objects in the database. You can delete up to 1000 ProjectIssue objects with a single call.

**Service:** *ProjectIssue Service (on page 724)*

Style: Document/literal wrapped

Input:

Message: DeleteProjectIssues

Elements: One to many ObjectID elements

Output:

Message: DeleteProjectIssuesResponse

Output: boolean

### GetFieldLengthProjectIssue Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ProjectIssue Service (on page 724)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectIssue

Elements: FieldLength

Output:

Message: GetFieldLengthProjectIssueResponse

Elements: One to many FieldLengthProjectIssues.

### ProjectIssue Fields

Field	Type	Read Only	Filterable Or Orderable	Description
ActivityId	string restricted to maxLength(40)	X	X	The short ID that uniquely identifies the activity within the project.
ActivityName	string restricted to maxLength(120)	X	X	The name of the activity. The activity name does not have to be unique.
ActivityObjectId	int		X	The unique ID of the activity to which the project issue applies.
ActualValue	double		X	The actual value of the threshold parameter for the project issue. Issues are automatically generated by the threshold monitor when actual values of threshold parameters exceed target values.
CreateDate	dateTime	X	X	The date this project issue was created.

CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this project issue.
DateIdentified	dateTime		X	The date the project issue was identified.
IdentifiedBy	string restricted to maxLength(255)		X	The identifier of the project issue. This may be the name of the user who created the project issue or Monitor, if the project issue was automatically generated by the threshold monitor.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this project issue was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this project issue.
LowerThreshold	double restricted to minInclusive(-9.999999999999E12) maxInclusive(9.999999999999E12)		X	The lower value of the threshold parameter that triggered the project issue. Issues are triggered when the actual/observed parameters values are less than or equal to the lower threshold.
Name	string restricted to maxLength(100)		X	The name of the project issue. Issues which are automatically generated by the threshold monitor are named after the threshold parameter that triggered the project issue.
Notes	string			The notes associated with the project issue.
OBSName	string restricted to	X	X	The name of the person/role in the organization, sometimes referred to as the



	maxLength(100)			"responsible manager".
OBSObjectld	int		X	The unique ID of the project manager from the project's OBS tree who is responsible for the project issue.
Objectld	int		X	The unique ID generated by the system.
ParentWBSObjectld	int	X	X	The parent ID of the WBS element to which the issue is assigned
Priority	string restricted to 'Top' 'High' 'Normal' 'Low' 'Lowest'		X	The priority of the project issue. Valid values are 'Top', 'High', 'Normal', 'Low', and 'Lowest'.
Projectld	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the project.
ProjectName	string restricted to maxLength(100)	X	X	The name of the associated project.
ProjectObjectld	int		X	The unique ID of the associated project.
ProjectThresholdObjectld	int	X	X	The unique ID of the associated project threshold for the project issue.
RawTextNote	string	X		The notes associated with the project issue.
ResolutionDate	dateTime		X	The date the project issue was resolved.
Resourceld	string restricted to maxLength(20)	X	X	The short code that uniquely identifies the resource.

ResourceName	string restricted to maxLength(100)	X	X	The name of the resource.
ResourceObjectId	int		X	The unique ID of the associated resource for this project issue. If a parent resource is selected, the issue applies to all child resources as well.
Status	string restricted to 'Open' 'On Hold' 'Closed'		X	The current status of the project issue. Valid values are 'Open', 'On Hold', and 'Closed'.
ThresholdParameterObjectId	int	X	X	The unique ID of the associated threshold parameter for the project issue.
UpperThreshold	double restricted to minInclusive(-9.999999999999E12) maxInclusive(9.999999999999E12)		X	The upper value of the threshold parameter which triggered the project issue. Issues are triggered when the actual/observed parameters values are greater than or equal to the upper threshold.
WBSCode	string restricted to maxLength(40)	X	X	The short code assigned to each WBS element for identification. Each WBS element is uniquely identified by concatenating its own code together with its parents' codes.
WBSName	string restricted to maxLength(100)	X	X	The name of the WBS element.
WBSObjectId	int		X	The unique ID of the WBS to which the project issue applies. If a parent WBS is selected, the project issue applies to all child elements as well. If the top WBS is selected, the project issue applies to the entire project.

## ProjectNote Service

### Operations:

- CreateProjectNotes Operation** (on page 731)
- ReadProjectNotes Operation** (on page 732)
- UpdateProjectNotes Operation** (on page 732)
- DeleteProjectNotes Operation** (on page 732)
- GetFieldLengthProjectNote Operation** (on page 733)

### WSDL: ProjectNote.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectNote/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/ProjectNoteService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/ProjectNoteService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.projectnote.ProjectNoteService`

### Description:

Project notes are used as a way of specifying one or more notes on a project or WBS element. You may specify one note on each project or WBS for every notebook topic that exists.

## CreateProjectNotes Operation

Description: Creates multiple ProjectNote objects in the database. You can create up to 1000 ProjectNote objects with a single call.

**Service:** *ProjectNote Service* (on page 731)

Style: Document/literal wrapped

Input:

Message: CreateProjectNotes

Elements: ProjectNote elements that contain **ProjectNote Fields** (on page 733) fields

Required fields: The following fields are required when creating the ProjectNote object:

- ▶ ProjectObjectId or WBSObjectId
- ▶ NotebookTopicObjectId

Output:

Message: CreateProjectNotesResponse

Output: Zero to many ObjectId elements

## ReadProjectNotes Operation

Description: Reads ProjectNote objects from the database.

**Service:** *ProjectNote Service (on page 731)*

Style: Document/literal wrapped

Input:

Message: ReadProjectNotes

Elements: One to many field names from the **ProjectNote Fields** (on page 733) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectNotesResponse

Output: Zero to many ProjectNote elements that contain ProjectNote fields.

## UpdateProjectNotes Operation

Description: Updates multiple ProjectNote objects in the database. You can update up to 1000 ProjectNote objects with a single call.

**Service:** *ProjectNote Service (on page 731)*

Style: Document/literal wrapped

Input:

Message: UpdateProjectNotes

Elements: ProjectNote elements that contain **ProjectNote Fields** (on page 733) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateProjectNotesResponse

Output: boolean

## DeleteProjectNotes Operation

Description: Deletes multiple ProjectNote objects in the database. You can delete up to 1000 ProjectNote objects with a single call.

**Service:** *ProjectNote Service (on page 731)*

Style: Document/literal wrapped

Input:

Message: DeleteProjectNotes

Elements: One to many ObjectId elements

Output:

Message: DeleteProjectNotesResponse

Output: boolean

### GetFieldLengthProjectNote Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ProjectNote Service (on page 731)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectNote

Elements: FieldLength

Output:

Message: GetFieldLengthProjectNoteResponse

Elements: One to many FieldLengthProjectNotes.

### ProjectNote Fields

Field	Type	Read Only	Filterable Orderable	Description
AvailableForActivity	boolean	X	X	the flag indicating whether this note is available for Activity objects.
AvailableForEPS	boolean	X	X	the flag indicating whether this note is available for EPS objects.
AvailableForProject	boolean	X	X	the flag indicating whether this note is available for Project objects.
AvailableForWBS	boolean	X	X	the flag indicating whether this note is available for WBS objects.
CreateDate	dateTime	X	X	The date this note was created.

CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this note.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdate Date	dateTime	X	X	The date this note was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this note.
Note	string			The information that is associated with the notebook topic.
NotebookTopicName	string restricted to maxLength(40)	X	X	The name of the associated notebook topic.
NotebookTopicObjectId	int		X	The unique ID of the associated notebook topic.
ObjectId	int		X	The unique ID generated by the system.
ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the project associated with this note.

ProjectObjectld	int		X	The unique ID of the associated project.
RawTextNote	string	X		The information that is associated with the notebook topic, without any HTML.
WBSCode	string restricted to maxLength(40)	X	X	The short code assigned to each WBS element for identification.
WBSName	string restricted to maxLength(100)	X	X	The name of the WBS element associated with this note.
WBSObjectld	int		X	The unique ID of the associated WBS.

## ProjectPortfolio Service

### Operations:

- CreateProjectPortfolios Operation** (on page 736)
- ReadProjectPortfolios Operation** (on page 736)
- UpdateProjectPortfolios Operation** (on page 737)
- DeleteProjectPortfolios Operation** (on page 737)
- GetFieldLengthProjectPortfolio Operation** (on page 738)
- AddProjects Operation** (on page 738)
- RemoveProjects Operation** (on page 739)
- RemoveProjects Operation** (on page 739)
- ContainsProject Operation** (on page 739)
- HasPrivilege Operation** (on page 739)
- LoadProjects Operation** (on page 740)

### WSDL: ProjectPortfolio.wsdl

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectPortfolio/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/ProjectPortfolioService?wsdl  
https://<hostname>:<port number>/p6ws/services/ProjectPortfolioService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.projectportfolio.ProjectPortfolioService

**Description:**

A project portfolio consists of projects grouped together in some way that is meaningful to you. For example, one portfolio might contain projects that are the responsibility of a specific business unit, while another portfolio contains only projects budgeted for the next fiscal year.

There are two types of project portfolios: "Manual" and "Filtered". Manual portfolios contain zero or more projects that were specifically added. Filtered portfolios contain zero or more projects based on a filter that was specified in Primavera's Web application. The list of projects in a filtered portfolio is based on the results of the filter when it was first created. Only manual portfolios can be created through the Integration API, and their list of projects cannot be altered.

### CreateProjectPortfolios Operation

Description: Creates multiple ProjectPortfolio objects in the database. You can create up to 1000 ProjectPortfolio objects with a single call.

**Service:** *ProjectPortfolio Service (on page 735)*

Style: Document/literal wrapped

Input:

Message: CreateProjectPortfolios

Elements: ProjectPortfolio elements that contain **ProjectPortfolio Fields** (on page 741) fields

Required fields: The following fields are required when creating the ProjectPortfolio object:

- ▶ Name

Output:

Message: CreateProjectPortfoliosResponse

Output: Zero to many ObjectID elements

### ReadProjectPortfolios Operation

Description: Reads ProjectPortfolio objects from the database.

**Service:** *ProjectPortfolio Service (on page 735)*

Style: Document/literal wrapped

Input:



Message: ReadProjectPortfolios

Elements: One to many field names from the **ProjectPortfolio Fields** (on page 741) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectPortfoliosResponse

Output: Zero to many ProjectPortfolio elements that contain ProjectPortfolio fields.

### UpdateProjectPortfolios Operation

Description: Updates multiple ProjectPortfolio objects in the database. You can update up to 1000 ProjectPortfolio objects with a single call.

**Service:** *ProjectPortfolio Service* (on page 735)

Style: Document/literal wrapped

Input:

Message: UpdateProjectPortfolios

Elements: ProjectPortfolio elements that contain **ProjectPortfolio Fields** (on page 741) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateProjectPortfoliosResponse

Output: boolean

### DeleteProjectPortfolios Operation

Description: Deletes multiple ProjectPortfolio objects in the database. You can delete up to 1000 ProjectPortfolio objects with a single call.

**Service:** *ProjectPortfolio Service* (on page 735)

Style: Document/literal wrapped

Input:

Message: DeleteProjectPortfolios

Elements: One to many ObjectID elements

Output:

Message: DeleteProjectPortfoliosResponse

Output: boolean

### GetFieldLengthProjectPortfolio Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ProjectPortfolio Service (on page 735)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectPortfolio

Elements: FieldLength

Output:

Message: GetFieldLengthProjectPortfolioResponse

Elements: One to many FieldLengthProjectPortfolios.

### AddProjects Operation

Description: Adds project to the project portfolio.

**Service:** *ProjectPortfolio Service (on page 735)*

Style: Document/literal wrapped

Input:

Message: AddProjects

Elements:

- ▶ ObjectIds
- ▶ ProjectObjectIds

Output:

Message: AddProjectsResponse

Element: Sucess

### GetProjectObjectIds Operation

Description: Gets an array of project IDs that are contained in the project portfolios.

**Service:** *ProjectPortfolio Service (on page 735)*

Style: Document/literal wrapped

Input:

Message: GetProjectObjectIds

Element: ObjectId

Output:

Message: GetProjectObjectIdsResponse

Element: One to many ProjectObjectIds.

### RemoveProjects Operation

Description: Removes projects from the project portfolio.

**Service:** *ProjectPortfolio Service (on page 735)*

Style: Document/literal wrapped

Input:

Message: RemoveProjects

Elements:

- ▶ ObjectId
- ▶ ProjectObjectIds

Output:

Message: RemoveProjectsResponse

Element: Success

### ContainsProject Operation

Description: Returns a boolean for whether or not a project portfolio contains a specified project.

**Service:** *ProjectPortfolio Service (on page 735)*

Style: Document/literal wrapped

Input:

Message: ContainsProject

Elements:

- ▶ ObjectId
- ▶ ContainsProjectId

Output:

Message: ContainsProjectResponse

Element: Success

### HasPrivilege Operation

Description: Returns a boolean for whether or not a project profile has a specified privilege.

Service: **ProjectPortfolio Service** (on page 735)

Style: Document/literal wrapped

Input:

Message: HasPrivilege

Elements:

- ▶ ProfileObjectId
- ▶ Privilege

Output:

Message: HasPrivilegeResponse  
 Element: boolean

### LoadProjects Operation

Description: Loads projects the specified project portfolio contains.

**Service:** *ProjectPortfolio Service (on page 735)*

Input:

Message: LoadProjects  
 Elements:

Name	Type	Description	Required
ObjectId	int	Unique identifier for the project code.	Yes
Fields	string	One or more <b>Project Fields</b> (on page 597) from the project fields list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No

Output:

Message: LoadProjectsResponse  
 Elements:

Name	Type	Description
ProjectObjectIds	string	Unique identifiers for the projects returned on operation success.

## ProjectPortfolio Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this project portfolio was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this project portfolio.
Description	string restricted to maxLength(255)		X	The description of the project portfolio.
IncludeClosedProjects	boolean		X	The flag that indicates whether closed projects are included in the portfolio.
IncludeWhatIfProjects	boolean		X	The flag that indicates whether what-if projects are included in the portfolio.
LastUpdateDate	dateTime	X	X	The date this project portfolio was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this project portfolio.
Name	string restricted to maxLength(40)		X	The name of the project portfolio.
ObjectId	int		X	The unique ID generated by the system.
PortfolioUse	string			A comma

rIdArray				separated list of User IDs to whom a multiple user portfolio is available.
Type	string restricted to 'Manual' 'Auto-Maintained' 'Filtered'	X	X	The type of the project portfolio: "Manual", "Auto-Maintained", or "Filtered".
UserName	string restricted to maxLength(255)	X	X	The user's login name.
UserObjectId	int		X	The unique ID of a specific user who has access to the selected project portfolio.
MemberProject	PortfolioTeamMemberType See the PortfolioTeamMemberType table below.			

**PortfolioTeamMemberType Table**

Id	string restricted to maxLength(40)
Name	string
ObjectId	int

## ProjectResource Service

### Operations:

**CreateProjectResources Operation** (on page 743)

**ReadProjectResources Operation** (on page 744)

**UpdateProjectResources Operation** (on page 744)

**DeleteProjectResources Operation** (on page 744)

**GetFieldLengthProjectResource Operation** (on page 745)

### WSDL: ProjectResource.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectResource/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ProjectResourceService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ProjectResourceService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.projectresource.ProjectResourceService`

### Description:

Primavera's resource planning feature allows you to do high-level project planning for future project or project that does not require resource assignments at the activity level. The resource planning feature allows you to allocate and manage resources at the project and WBS levels. If the LifeOfProjectFlag is true, the resource assignment is for the duration of the project, and so, if the project dates are pushed out, the resource assignment dates are pushed as well.

If the LifeOfProjectFlag is false, the dates on the ProjectResource will be calculated from the dates on the child ProjectResourceQuantity objects.

## CreateProjectResources Operation

Description: Creates multiple ProjectResource objects in the database. You can create up to 1000 ProjectResource objects with a single call.

**Service:** *ProjectResource Service* (on page 743)

Style: Document/literal wrapped

Input:

Message: CreateProjectResources

Elements: ProjectResource elements that contain **ProjectResource Fields** (on page 745) fields

Required fields: The following fields are required when creating the ProjectResource object:

- ▶ ProjectObjectId|WBSObjectId

▶ ResourceObjectId|RoleObjectId

Output:

Message: CreateProjectResourcesResponse

Output: Zero to many ObjectId elements

### ReadProjectResources Operation

Description: Reads ProjectResource objects from the database.

**Service:** *ProjectResource Service (on page 743)*

Style: Document/literal wrapped

Input:

Message: ReadProjectResources

Elements: One to many field names from the **ProjectResource Fields** (on page 745) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectResourcesResponse

Output: Zero to many ProjectResource elements that contain ProjectResource fields.

### DeleteProjectResources Operation

Description: Deletes multiple ProjectResource objects in the database. You can delete up to 1000 ProjectResource objects with a single call.

**Service:** *ProjectResource Service (on page 743)*

Style: Document/literal wrapped

Input:

Message: DeleteProjectResources

Elements: One to many ObjectId elements

Output:

Message: DeleteProjectResourcesResponse

Output: boolean

### UpdateProjectResources Operation

Description: Updates multiple ProjectResource objects in the database. You can update up to 1000 ProjectResource objects with a single call.



**Service: ProjectResource Service (on page 743)**

Style: Document/literal wrapped

Input:

Message: UpdateProjectResources

Elements: ProjectResource elements that contain **ProjectResource Fields** (on page 745) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateProjectResourcesResponse

Output: boolean

**GetFieldLengthProjectResource Operation**

Description: Returns length of variable character fields for a BO.

**Service: ProjectResource Service (on page 743)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectResource

Elements: FieldLength

Output:

Message: GetFieldLengthProjectResourceResponse

Elements: One to many FieldLengthProjectResources.

**ProjectResource Fields**

Field	Type	Read Only	Filterable Orderable	Description
CommittedFlag	boolean		X	The Boolean value that determines whether a resource is committed, and so, the resource assignment is stable and unlikely to change. When calculating availability, Primavera considers only assignments that are marked as committed.
CreateDate	dateTime	X	X	The date this project resource was created.
CreateUser	string	X	X	The name of the user that created

	restricted to maxLength(255)			this project resource.
FinishDate	dateTime	X	X	The finish date of the assignment. By default, it is set to the Planned Start date of the project + 1 day, finishing at 5:00pm. For example, if the planned start date is January 1, 8:00am, the finish date is set to January 2, 5:00pm. If LifeOfProjectFlag is set to true during creation, this date is set to the Project Scheduled Finish date. If associated ProjectResourceQuantities exist, this field is set to the end of the week of the latest ProjectResourceQuantity.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this project resource was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this project resource.
LifeOfProjectFlag	boolean		X	The Boolean value that determines whether a resource that is assigned to a project at Project or WBS level, has that assignment for the duration of the project.
ObjectId	int		X	The unique ID generated by the system.
ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the associated project.
ProjectObjectl	int		X	The unique ID of the associated

d				project.
ProjectResourceCategoryName	string	X	X	The name of the associated project resource category.
ProjectResourceCategoryObjectId	int		X	The unique ID of the associated project resource category.
ResourceName	string	X	X	The name of the associated resource.
ResourceObjectId	int		X	The unique ID of the associated resource.
RoleName	string	X	X	The name of the associated role.
RoleObjectId	int		X	The unique ID of the associated role.
StartDate	dateTime	X	X	The start date of the assignment. By default, it is set to the Planned Start date of the project. If LifeOfProjectFlag is set to true, this date is set to the Project Planned Start date. If associated ProjectResourceQuantities exist, this field is set to the beginning of the week of the earliest ProjectResourceQuantity.
Status	string restricted to " 'Planned' 'Active' 'Inactive' 'What-If' 'Requested' 'Template'	X	X	The project or WBS status: 'Planned', 'Active', 'Inactive', 'What-If', or 'Requested'.

TotalUnits	double	X	X	The total units for the planning resource assignment.
WBSCode	string restricted to maxLength(40)	X	X	The short code assigned to the associated WBS element for identification.
WBSObjectld	int		X	The unique ID of the associated WBS.
ResourceRequest	ResourceRequestType See ResourceRequestType table below.			The resource request used as a search template to search for a qualified resource.

### ResourceRequestType Table

FinishDate	dateTime
MatchAllCriteria	boolean
Name	string
RequestedUnits	double
SequenceNumber	int
ShowOnlyLaborResources	boolean

ShowOverallocatedResources	boolean
SortResultsByAvailability	boolean
StartDate	dateTime
UseActivityDates	boolean
ResourceRequestCriterion	ResourceRequestCriterionType See ResourceRequestCrtiterionType table below

### ResourceRequestCriterionType

Field	Type
CriterionType	string restricted to 'Primary Role' 'Role' 'Resource' 'Resource Code'
Proficiency	string restricted to '1 - Master' '2 - Expert' '3 - Skilled' '4 - Proficient' '5 - Inexperienced'
ValueObjectId	int

## ProjectResourceQuantity Service

### Operations:

**CreateProjectResourceQuantities Operation** (on page 750)

**ReadProjectResourceQuantities Operation** (on page 751)

**UpdateProjectResourceQuantities Operation** (on page 751)

**DeleteProjectResourceQuantities Operation** (on page 752)

**GetFieldLengthProjectResourceQuantity Operation** (on page 752)

### WSDL: ProjectResourceQuantity.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectResourceQuantity/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ProjectResourceQuantityService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ProjectResourceQuantityService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.projectresourcequantity.ProjectResourceQuantityService`

### Description:

The ProjectResourceQuantity object provides access to resource allocation hours per week for resources assigned to a project at the Project or WBS level. Usually there is one ProjectResourceQuantity object per week, and it corresponds to a record in the wbsrsrc\_qty table. However, when a week contains days from more than one month, two ProjectResourceQuantity objects (and so, two records) will exist based on the two week fragments. They both have the same WeekStartDate but their MonthStartDate and week fragment data are different: The first ProjectResourceQuantity object holds data for the first week fragment, and its MonthStartDate has the same month as the WeekStartDate. The second ProjectResourceQuantity object holds data for the second week fragment, and its MonthStartDate is that of the next month.

Note that this business object has a multi-part object ID; its object ID is a combination of its project resource object ID, its week start date, its month start date, and its quantity.

## CreateProjectResourceQuantities Operation

Description: Creates multiple ProjectResourceQuantity objects in the database. You can create up to 1000 ProjectResourceQuantity objects with a single call.

**Service:** *ProjectResourceQuantity Service* (on page 750)

Style: Document/literal wrapped

Input:

Message: CreateProjectResourceQuantities

Elements: ProjectResourceQuantity elements that contain **ProjectResourceQuantity Fields** (on page 752) fields

Required fields: The following fields are required when creating the ProjectResourceQuantity object:

- ▶ ProjectResourceObjectId
- ▶ Quantity|FinancialPeriod1Quantity|FinancialPeriod2Quantity
- ▶ WeekStartDate

Output:

Message: CreateProjectResourceQuantitiesResponse

Output: Zero to many ObjectId elements

### ReadProjectResourceQuantities Operation

Description: Reads ProjectResourceQuantity objects from the database.

**Service:** *ProjectResourceQuantity Service* (on page 750)

Style: Document/literal wrapped

Input:

Message: ReadProjectResourceQuantities

Elements: One to many field names from the **ProjectResourceQuantity Fields** (on page 752) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectResourceQuantitiesResponse

Output: Zero to many ProjectResourceQuantity elements that contain ProjectResourceQuantity fields.

### UpdateProjectResourceQuantities Operation

Description: Updates multiple ProjectResourceQuantity objects in the database. You can update up to 1000 ProjectResourceQuantity objects with a single call.

**Service:** *ProjectResourceQuantity Service* (on page 750)

Style: Document/literal wrapped

Input:

Message: UpdateProjectResourceQuantities

Elements: ProjectResourceQuantity elements that contain **ProjectResourceQuantity Fields** (on page 752) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateProjectResourceQuantitiesResponse

Output: boolean

### DeleteProjectResourceQuantities Operation

Description: Deletes multiple ProjectResourceQuantity objects in the database. You can delete up to 1000 ProjectResourceQuantity objects with a single call.

**Service:** *ProjectResourceQuantity Service (on page 750)*

Style: Document/literal wrapped

Input:

Message: DeleteProjectResourceQuantities

Elements: One to many ObjectId elements

Output:

Message: DeleteProjectResourceQuantitiesResponse

Output: boolean

### GetFieldLengthProjectResourceQuantity Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ProjectResourceQuantity Service (on page 750)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectResourceQuantity

Elements: FieldLength

Output:

Message: GetFieldLengthProjectResourceQuantityResponse

Elements: One to many FieldLengthProjectQuantityResponses.

### ProjectResourceQuantity Fields

Field	Type	Read Only	Filterable Orderable	Description
CommittedFlag	boolean	X	X	The Boolean value that determines whether a resource is committed, and



				so, the resource assignment is stable and unlikely to change. When calculating availability, Primavera considers only assignments that are marked as committed.
CreateDate	dateTime	X	X	The date this project resource quantity was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this project resource quantity.
FinancialPeriod1Objectld	int	X	X	The unique ID of the associated first financial period for this project resource quantity.
FinancialPeriod1Quantity	double restricted to minInclusive(0.0)		X	The value that represents the resource allocation hours for the first financial period for this project resource quantity. If the week contains days from two different months, two ProjectResourceQuantity business objects will exist. The first business object's Quantity field represents the hours of the first week fragment (WeekStartDate and MonthStartDate

				have the same month value). The second business object's Quantity field represents the second week fragment (WeekStartDate and MonthStartDate have different month values).
FinancialPeriod2ObjectID	int	X	X	The unique ID of the associated second financial period for this project resource quantity.
FinancialPeriod2Quantity	double restricted to minInclusive(0.0)		X	The value that represents the resource allocation hours for the second financial period for this project resource quantity. If the week contains days from two different months, two ProjectResourceQuantity business objects will exist. The first business object's Quantity field represents the hours of the first week fragment (WeekStartDate and MonthStartDate have the same month value). The second business object's Quantity field represents the second week fragment

				(WeekStartDate and MonthStartDate have different month values).
FinancialPeriodTmpId	int		X	The unique identifier of the financial period calendar to which the period belongs.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this project resource quantity was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this project resource quantity.
MonthStartDate	dateTime		X	The date value that represents the first day of the month. If the week contains days from two different months, two objects will exist. The first ProjectResourceQuantity object's MonthStartDate is the first day of the month for the first week fragment. The second ProjectResourceQ

				Quantity object's MonthStartDate is the first day of the month for the second week fragment.
ProjectObjectid	int	X	X	The unique ID of the associated project.
ProjectResourceObjectid	int		X	The unique ID of the associated project resource.
Quantity	double restricted to minInclusive(0.0)		X	The value that represents the resource allocation hours per week for this project resource quantity. If the week contains days from two different months, two ProjectResourceQuantity business objects will exist. The first business object's Quantity field represents the hours of the first week fragment (WeekStartDate and MonthStartDate have the same month value). The second business object's Quantity field represents the second week fragment (WeekStartDate and MonthStartDate have different month values).

ResourceObjectld	int	X	X	The unique ID of the associated resource.
RoleObjectld	int	X	X	The unique ID of the associated role.
WBSObjectld	int	X	X	The unique ID of the associated WBS.
WeekStartDate	dateTime		X	The date value that represents the first day of the week.

## ProjectSpendingPlan Service

### Operations:

- CreateProjectSpendingPlans Operation** (on page 758)
- ReadProjectSpendingPlans Operation** (on page 758)
- UpdateProjectSpendingPlans Operation** (on page 758)
- DeleteProjectSpendingPlans Operation** (on page 759)
- GetFieldLengthProjectSpendingPlan Operation** (on page 759)

### WSDL: ProjectSpendingPlan.wsdl

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectSpendingPlan/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/ProjectSpendingPlanService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/ProjectSpendingPlanService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.projectspendingplan.ProjectSpendingPlanService`

### Description:

Project spending plans represent monthly spending amounts for a project or WBS.

## CreateProjectSpendingPlans Operation

Description: Creates multiple ProjectSpendingPlan objects in the database. You can create up to 1000 ProjectSpendingPlan objects with a single call.

**Service:** *ProjectSpendingPlan Service (on page 757)*

Style: Document/literal wrapped

Input:

Message: CreateProjectSpendingPlans

Elements: ProjectSpendingPlan elements that contain ***ProjectSpendingPlan Fields*** (on page 760) fields

Required fields: The following fields are required when creating the ProjectSpendingPlan object:

- ▶ ProjectObjectId|WBSObjectId
- ▶ Date

Output:

Message: CreateProjectSpendingPlansResponse

Output: Zero to many ObjectId elements

## ReadProjectSpendingPlans Operation

Description: Reads ProjectSpendingPlan objects from the database.

**Service:** *ProjectSpendingPlan Service (on page 757)*

Style: Document/literal wrapped

Input:

Message: ReadProjectSpendingPlans

Elements: One to many field names from the ***ProjectSpendingPlan Fields*** (on page 760) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectSpendingPlansResponse

Output: Zero to many ProjectSpendingPlan elements that contain ProjectSpendingPlan fields.

## UpdateProjectSpendingPlans Operation

Description: Updates multiple ProjectSpendingPlan objects in the database. You can update up to 1000 ProjectSpendingPlan objects with a single call.

**Service: *ProjectSpendingPlan* Service (on page 757)**

Style: Document/literal wrapped

Input:

Message: UpdateProjectSpendingPlans

Elements: ProjectSpendingPlan elements that contain ***ProjectSpendingPlan Fields*** (on page 760) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateProjectSpendingPlansResponse

Output: boolean

**DeleteProjectSpendingPlans Operation**

Description: Deletes multiple ProjectSpendingPlan objects in the database. You can delete up to 1000 ProjectSpendingPlan objects with a single call.

**Service: *ProjectSpendingPlan* Service (on page 757)**

Style: Document/literal wrapped

Input:

Message: DeleteProjectSpendingPlans

Elements: One to many ObjectId elements

Output:

Message: DeleteProjectSpendingPlansResponse

Output: boolean

**GetFieldLengthProjectSpendingPlan Operation**

Description: Returns length of variable character fields for a BO.

**Service: *ProjectSpendingPlan* Service (on page 757)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectSpendingPlan

Elements: FieldLength

Output:

Message: GetFieldLengthProjectSpendingPlanResponse

Elements: One to many FieldLengthProjectSpendingPlans.

**ProjectSpendingPlan Fields**

Field	Type	Read Only	Filterable Orderable	Description
BenefitPlan	double restricted to minInclusive(-9.9999999999999E13) maxInclusive(9.9999999999999E13)		X	The editable monthly profit portion for each month for the project.
CreateDate	dateTime	X	X	The date this spending plan was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this spending plan.
Date	dateTime		X	The start of a spending/benefit plan time period for the project.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdate Date	dateTime	X	X	The date this spending plan was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this spending plan.



ObjectId	int		X	The unique ID generated by the system.
ProjectId	string restricted to maxLength(40)	X	X	The Project short code that uniquely identifies the project.
ProjectObjectId	int		X	The unique ID of the associated project for this project spending plan.
SpendingPlan	double restricted to minInclusive(-9.999999999999E13) maxInclusive(9.999999999999E13)		X	The editable total monthly expenditure for the project.
WBSCode	string restricted to maxLength(40)	X	X	The short code assigned to each WBS element for identification. Each WBS element is uniquely identified by concatenating its own code together with its parents' codes.
WBSName	string restricted to maxLength(100)	X	X	The name of the WBS element.
WBSObjectId	int		X	The unique ID of the associated WBS for this project spending plan.

## ProjectThreshold Service

### Operations:

**CreateProjectThresholds Operation** (on page 762)

**ReadProjectThresholds Operation** (on page 763)

**UpdateProjectThresholds Operation** (on page 763)

**DeleteProjectThresholds Operation** (on page 763)

**GetFieldLengthProjectThreshold Operation** (on page 764)

### WSDL: ProjectThreshold.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectThreshold/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ProjectThresholdService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ProjectThresholdService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.projectthreshold.ProjectThresholdService`

### Description:

Project thresholds are used as a project management technique to monitor values within a specified tolerance range so that project issues can be identified and reported. For example, a threshold could be used to monitor Start Date variance or Total Float values.

## CreateProjectThresholds Operation

Description: Creates multiple ProjectThreshold objects in the database. You can create up to 1000 ProjectThreshold objects with a single call.

**Service:** *ProjectThreshold Service* (on page 762)

Style: Document/literal wrapped

Input:

Message: CreateProjectThresholds

Elements: ProjectThreshold elements that contain **ProjectThreshold Fields** (on page 764) fields

Required fields: The following fields are required when creating the ProjectThreshold object:

- ▶ ProjectObjectId|WBSObjectId
- ▶ ThresholdParameterObjectId
- ▶ OBSObjectId

Output:

Message: CreateProjectThresholdsResponse

Output: Zero to many ObjectID elements

### ReadProjectThresholds Operation

Description: Reads ProjectThreshold objects from the database.

**Service:** *ProjectThreshold Service (on page 762)*

Style: Document/literal wrapped

Input:

Message: ReadProjectThresholds

Elements: One to many field names from the **ProjectThreshold Fields** (on page 764) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectThresholdsResponse

Output: Zero to many ProjectThreshold elements that contain ProjectThreshold fields.

### UpdateProjectThresholds Operation

Description: Updates multiple ProjectThreshold objects in the database. You can update up to 1000 ProjectThreshold objects with a single call.

**Service:** *ProjectThreshold Service (on page 762)*

Style: Document/literal wrapped

Input:

Message: UpdateProjectThresholds

Elements: ProjectThreshold elements that contain **ProjectThreshold Fields** (on page 764) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateProjectThresholdsResponse

Output: boolean

### DeleteProjectThresholds Operation

Description: Deletes multiple ProjectThreshold objects in the database. You can delete up to 1000 ProjectThreshold objects with a single call.

**Service: *ProjectThreshold Service (on page 762)***

Style: Document/literal wrapped

Input:

Message: DeleteProjectThresholds  
 Elements: One to many ObjectId elements

Output:

Message: DeleteProjectThresholdsResponse  
 Output: boolean

**GetFieldLengthProjectThreshold Operation**

Description: Returns length of variable character fields for a BO.

**Service: *ProjectThreshold Service (on page 762)***

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectThreshold  
 Elements: FieldLength

Output:

Message: GetFieldLengthProjectThresholdResponse  
 Elements: One to many FieldLengthProjectThresholds.

**ProjectThreshold Fields**

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this project threshold was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this project threshold.
DetailToMonitor	string restricted to 'Activity' 'WBS'		X	The level of detail to monitor, either Activity or WBS. The project threshold is calculated at the activity level or at the WBS

				level, whichever is selected.
FromDate	dateTime			The starting custom date of the time window that is monitored against a project threshold. Any activities or WBS elements with start/finish dates which intersect this time window are monitored.
FromDateExpression	string restricted to maxLength(50)		X	The expression for the starting date of the time window that is monitored against a project threshold. Valid values are PS (the project StartDate), PF (the project FinishDate), DD (the project Data Date), CD (Current Date), CW (Current Week), or CM (Current Month). All values can be combined with arithmetic operators + or - and a numerical calendar value. For example, PS+5D, DD-1M. The calendar abbreviation specified in the expression (H, D, W, M, Y) must match the value of the corresponding

				GlobalPreferences field: HourChar, DayChar, WeekChar, MonthChar, or YearChar. You could specify a custom date by setting a date value for the FromDate field. If you set values for both the FromDate and FromDateExpression fields, the FromDateExpression will be ignored.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
IssuePriority	string restricted to 'Top' 'High' 'Normal' 'Low' 'Lowest'		X	The priority of any issues generated from the project threshold.
LastUpdateDate	dateTime	X	X	The date this project threshold was last updated.
LastUpdateUser	string	X	X	The name of the user that last

ser	restricted to maxLength(255)			updated this project threshold.
LowerThresh old	double restricted to minInclusive(-9.9 999999999999 E12) maxInclusive(9.9 999999999999 E12)		X	The lower value of a project threshold that will trigger an issue. An issue is identified by the project threshold monitor when the actual/observed value of the project threshold parameter is found to be less than or equal to the lower project threshold value. If the lower project threshold value is null, it is ignored. Example: The Total Float lower project threshold is set to one day. Whenever the observed total float is less than or equal to one day, a project issue is raised.
OBSEntityId	int		X	The unique ID of the associated OBS for this project threshold.
EntityId	int		X	The unique ID generated by the system.
ProjectId	string restricted to maxLength(40)	X	X	The Project short code that uniquely identifies the

				project.
ProjectObject Id	int		X	The unique ID of the associated project for this project threshold.
Status	string restricted to 'Enabled' 'Disabled'		X	The current status of the project threshold.
ThresholdPar ameterObject Id	int		X	The unique ID of the associated threshold parameter for this project threshold.
ToDate	dateTime			The ending custom date of the time window that is monitored against a project threshold. Any activities or WBS elements with start/finish dates which intersect this time window are monitored.
ToDateExpre ssion	string restricted to maxLength(50)		X	The expression for the ending date of the time window that is monitored against a project threshold. Valid values are PS (the project StartDate), PF (the project FinishDate), DD (the project Data Date), CD (Current Date), CW (Current Week), or CM



				<p>(Current Month). All values can be combined with arithmetic operators + or - and a numerical calendar value. For example, PS+5d, DD-1M. The calendar abbreviation specified in the expression (H, D, W, M, Y) must match the value of the corresponding GlobalPreferences field: HourChar, DayChar, WeekChar, MonthChar, or YearChar. You could specify a custom date by setting a date value for the FromDate field. If you set values for both the ToDate and ToDateExpression fields, the ToDateExpression will be ignored.</p>
UpperThreshold	<p>double restricted to minInclusive(-9.9999999999999999E12) maxInclusive(9.9999999999999999E12)</p>		X	<p>The upper value of a project threshold parameter which will trigger an issue. An issue is identified by the project threshold monitor when the</p>

				<p>actual/observed value of the project threshold parameter is found to be greater than or equal to the upper project threshold value. If the upper project threshold value is null, it is ignored.</p> <p>Example: The Cost % of Planned upper project threshold is set to 120%. Whenever the actual cost is greater than or equal to 120% of planned, an issue is raised.</p>
WBSCode	string restricted to maxLength(40)	X	X	<p>The short code assigned to each WBS element for identification. Each WBS element is uniquely identified by concatenating its own code together with its parents' codes.</p>
WBSName	string restricted to maxLength(100)	X	X	<p>The name of the WBS element.</p>
WBSObjectld	int		X	<p>The unique ID of the associated WBS for this project threshold.</p>

## ScheduleOptions Service

### Operations:

**ReadScheduleOptions Operation** (on page 771)

**UpdateScheduleOptions Operation** (on page 772)

**GetFieldLengthScheduleOptions Operation** (on page 772)

### WSDL: ScheduleOptions.wsdl

Primary Key Field: Objectid

Target Namespace: http://xmlns.oracle.com/Primavera/P6/WS/ScheduleOptions/V1

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/ScheduleOptionsService?wsdl

https://<hostname>:<port number>/p6ws/services/ScheduleOptionsService?wsdl

### Java Client Stub Class:

com.primavera.ws.p6.scheduleoptions.ScheduleOptionsService

### Description:

Specifies how the associated project is to be scheduled.

Note that this business object has a multi-part object ID; its object ID is a combination of its user object ID and its project object ID.

You may not create or delete schedule options; they may only be loaded and updated.

## ReadScheduleOptions Operation

Description: Reads ScheduleOptions objects from the database.

**Service:** *ScheduleOptions Service* (on page 771)

Style: Document/literal wrapped

Input:

Message: ReadScheduleOptions

Elements: One to many field names from the **ScheduleOptions Fields** (on page 772) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadScheduleOptionsResponse

Output: Zero to many ScheduleOptions elements that contain ScheduleOptions fields.

### UpdateScheduleOptions Operation

Description: Updates multiple ScheduleOptions objects in the database. You can update up to 1000 ScheduleOptions objects with a single call.

**Service:** *ScheduleOptions Service (on page 771)*

Style: Document/literal wrapped

Input:

Message: UpdateScheduleOptions

Elements: ScheduleOptions elements that contain **ScheduleOptions Fields** (on page 772) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateScheduleOptionsResponse

Output: boolean

### GetFieldLengthScheduleOptions Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ScheduleOptions Service (on page 771)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthScheduleOptions

Elements: FieldLength

Output:

Message: GetFieldLengthScheduleOptionsResponse

Elements: One to many FieldLengthScheduleOptions.

### ScheduleOptions Fields

Field	Type	Read Only	Filterable Orderable	Description
CalculateFloatBasedOnFinishDate	boolean			The flag that indicates how each activity's float will be calculated with respect to other projects in the scheduling batch.

				This setting only has an effect when scheduling multiple projects at the same time. If true, each activity's float is calculated based on its project's ScheduledFinish Date. If false, then each activity's float is calculated based on the latest ScheduledFinish Date of all of the projects in the scheduling batch.
ComputeTotalFloatType	string restricted to 'Start Float = Late Start - Early Start' 'Finish Float = Late Finish - Early Finish' 'Smallest of Start Float and Finish Float'			The method for calculating total float for all activities. Start Float is the difference between the early and late start dates (Start Float = Late Start - Early Start); Finish Float is the difference between the early and late finish dates (Finish Float = Late Finish - Early Finish); and Smallest of Start Float and Finish Float is the most critical float value.
CreateDate	dateTime	X	X	The date this schedule option was created.

CreateUser	string restricted to maxLength( 255)	X	X	The name of the user that created this schedule option.
CriticalActivityFloatThreshold	double			the maximum float time for activities before they are marked critical.
CriticalActivityPathType	string restricted to 'Critical Float' 'Longest Path'			The critical path type, which indicates how critical path activities are identified for the project, based on either 'Critical Float' or 'Longest Path'.
ExternalProjectPriorityLimit	int			The value set for the leveler setting "Consider assignments in other projects with priority equal or higher than". Must be between 1 and 100.
IgnoreOtherProjectRelationships	boolean			The option used by the scheduler for treating activity relationships between projects when scheduling.
IncludeExternalResources	boolean			The state of the leveler setting "Consider assignments in other projects with priority equal or higher than"
LastUpdateDate	dateTime	X	X	The date this schedule option was last updated.

LastUpdateUser	string restricted to maxLength( 255)	X	X	The name of the user that last updated this schedule option.
LevelAllResources	boolean			The option used by the scheduler for automatically leveling resources when scheduling projects.
LevelWithinFloat	boolean			The option used by the leveler for leveling resources only within activity total float. Specify the amount of float to preserve using the MinFloatToPreserve field. Specify the maximum percent to over allocate resources using the OverAllocationPercentage field.
MakeOpenEndedActivitiesCritical	boolean			the option used by the scheduler for automatically leveling resources when scheduling projects.
MaximumMultipleFloatPaths	int restricted to minInclusive (0) maxInclusive (1000)			The number of critical float paths to calculate. For example, if you set the field to five, the module calculates the five most critical float paths ending with the activity you

				<p>selected. The module ranks each float path from most critical to least critical, and stores the value for each activity in the Float Path field. For example, if you calculate five float paths, the module will store a value of one in the Float Path field for each activity in the most critical float path; the module will store a value of five for each activity in the least critical float path. Note: To view the critical float paths after you schedule the project, group activities in the Activity Table by Float Path and sort by Float Path Order. A Float Path value of one indicates that those activities are part of the most critical float path. The Float Path Order value indicates the order in which the activities were processed.</p>
MultipleFloatPathsEndingActivityShortName				



MinFloatToPreserve	int			The option used by the leveler to specify the amount of activity float to preserve when leveling resources only within the activity total float using the LevelWithinFloat field.
MultipleFloatPaths Enabled	boolean			The Boolean value that indicates whether multiple critical float paths (sequences of activities) should be calculated in the project schedule.
MultipleFloatPaths EndingActivityObjectid	int			The object Id of the activity in the WBS that you want to represent the end of the float paths. Typically, this will be a milestone activity or some other significant activity that has a start date or end date that cannot change. Note: if a value is not assigned, the module will choose an activity based on MultipleFloatPathsUseTotalFloat. If you are calculating multiple paths using Free Float,

				the module will choose the open-ended activity with the most critical Free Float. If you are calculating multiple paths using Total Float, the module will calculate the Total Float for all activity relationships, then choose the activity with the most critical Relationship Total Float.
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MultipleFloatPaths UseTotalFloat	boolean		<p>The Boolean value that decides whether or not to use total float in multiple float path calculations.</p> <p>If True, then based on the activity you want the paths to end on, the module determines which predecessor activity has the most critical Relationship Total Float on the backward pass. The module repeats this process until an activity is reached that has no relationship. The module begins the forward pass from this activity and determines which successor activity has the most critical Relationship Successor Total Float. The module repeats this process until an activity is reached that has no relationship. These activities represent the most critical float path. The process begins again until the remaining sub-critical paths are calculated.</p> <p>If False, then critical float paths are defined based on longest path. The most critical path will</p>
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OutOfSequenceScheduleType	string restricted to " 'Retained Logic' 'Progress Override' 'Actual Dates'			the type of logic used to schedule the progressed activities: 'Retained Logic', 'Progress Override', or 'Actual Dates'.
OverAllocationPercentage	double			The option used by the leveler to specify the maximum percent to over allocate resources when leveling resources only within the activity total float using the LevelWithinFloat field.
PreserveScheduleEarlyAndLateDates	boolean			The option used by the leveler to preserve scheduled early and late dates when leveling.
PriorityList	string			The list of fields used for prioritization during leveling.
ProjectId	string restricted to maxLength(40)	X		The short code that uniquely identifies the project.
ProjectObjectId	int	X	Filterable only	The unique ID of the associated project.
RelationshipLagCalendar	string restricted to 'Predecessor Activity'			the calendar used to calculate the lag between predecessors and

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	Calendar' 'Successor Activity Calendar' '24 Hour Calendar' 'Project Default Calendar'			successors for all activities. Valid values are 'Predecessor Activity Calendar', 'Successor Activity Calendar', '24 Hour Calendar', and 'Project Default Calendar'. If you do not select a calendar, the successor activity calendar is used.
ResourceList	string			The list of Resource IDs to level.

<p>StartToStartLagCalculationType</p>	<p>boolean</p>		<p>the method used to calculate lag when a start-to-start relationship exists and the predecessor starts out of sequence. Actual Start sets the successor's start according to the time elapsed from the predecessor's actual start (the successor's start date is the data date plus any remaining lag). Early Start sets the successor's start according to the amount of work that the predecessor activity accomplishes (the expired lag is calculated as the number of work periods between the actual start and the data date, and the successor's start date is the predecessor's internal early start plus any remaining lag).</p>
<p>UseExpectedFinishDates</p>	<p>boolean</p>		<p>the option used for setting activity finish dates as the expected finish dates when scheduling projects.</p>

UserName	string restricted to maxLength( 255)	X		The user's login name.
UserObjectId	int	X	Filterable only	The unique ID of the associated user.

## WBS Service

### Operations:

- CreateWBS Operation** (on page 784)
- ReadWBS Operation** (on page 784)
- UpdateWBS Operation** (on page 784)
- CopyWBSFromTemplate Operation** (on page 785)
- DeleteWBS Operation** (on page 786)
- GetFieldLengthWBS Operation** (on page 786)
- ReadActivityWBSPath Operation** (on page 787)
- ReadWBSPath Operation** (on page 787)
- ReadAllWBS Operation** (on page 788)

### WSDL: WBS.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/WBS/V2>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/WBSService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/WBSService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.wbs.WBSService`

### Description:

The project work breakdown structure (WBS) is a hierarchical arrangement of the products and services produced during and by a project. Each element of a WBS may contain more-detailed WBS elements, activities, or both. WBS are hierarchical objects.

This business object supports user defined fields (UDFs). Use the UDFValue business object to assign UDFs.

## CreateWBS Operation

Description: Creates multiple WBS objects in the database. You can create up to 1000 WBS objects with a single call.

**Service:** *WBS Service* (on page 783)

Style: Document/literal wrapped

Input:

Message: CreateWBS

Elements: WBS elements that contain **WBS Fields** (on page 788) fields

Required fields: The following fields are required when creating the WBS object:

- ▶ Code
- ▶ Name
- ▶ ProjectObjectId|ParentObjectId

Output:

Message: CreateWBSResponse

Output: Zero to many ObjectId elements

## ReadWBS Operation

Description: Reads WBS objects from the database.

**Service:** *WBS Service* (on page 783)

Style: Document/literal wrapped

Input:

Message: ReadWBS

Elements: One to many field names from the **WBS Fields** (on page 788) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadWBSResponse

Output: Zero to many WBS elements that contain WBS fields.

## UpdateWBS Operation

Description: Updates multiple WBS objects in the database. You can update up to 1000 WBS objects with a single call.



**Service: WBS Service (on page 783)**

Style: Document/literal wrapped

Input:

Message: UpdateWBS

Elements: WBS elements that contain **WBS Fields** (on page 788) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateWBSResponse

Output: boolean

**CopyWBSFromTemplate Operation**

Description: Copies a WBS structure from a template and places it under a WBS.

**Service: WBS Service (on page 783)**

Style: Document/literal wrapped

Input:

Message: CopyWBSFromTemplate

Elements: elements that contain the following fields:

Field	Type	Description
ObjectId	int	The unique identifier of an existing WBS that will contain the copied WBS structure.
TemplateWbsObjectId	int	The unique identifier of the source WBS structure to copy.
CopyWBSNotes	boolean	Determines whether to copy WBS Notebooks.
CopyWBSMilestones	boolean	Determines whether to copy WBS Milestones.
CopyActivities	boolean	Determines whether to copy Activities.
CopyResourceAndRoleAssignments	boolean	Determines whether to copy resource and role assignments.
CopyRelationships	boolean	Determines whether to copy relationships.

CopyActivityCodes	boolean	Determines whether to copy activity codes.
CopyEPSCodesAtProjectLevel	boolean	Determines whether to copy EPS specific activity codes as project specific activity codes if the WBS is being copied to an EPS which does not have access to the EPS specific activity code.
CopyActivityNotes	boolean	Determines whether to copy activity notebooks.
CopyActivitySteps	boolean	Determines whether to copy steps.

Required fields: The following fields are required when creating the Project object:

- ▶ Objectld
- ▶ TemplateWbsObjectld

Output:

Message: CopyWBSFromTemplateResponse

Elements: Objectld of the WBS specified in the Objectld input parameter. The system copied a new WBS structure underneath this WBS.

### DeleteWBS Operation

Description: Deletes multiple WBS objects in the database. You can delete up to 1000 WBS objects with a single call.

**Service:** *WBS Service (on page 783)*

Style: Document/literal wrapped

Input:

Message: DeleteWBS

Elements: One to many Objectld DeleteWithReplacements

Output:

Message: DeleteWBSResponse

Output: boolean

### GetFieldLengthWBS Operation

Description: Returns length of variable character fields for a BO.

**Service: WBS Service (on page 783)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthWBS

Elements: FieldLength

Output:

Message: GetFieldLengthWBSResponse

Elements: One to many FieldLengthWBSs.

**ReadActivityWBSPath Operation**

Description: Reads WBS objects from the database.

**Service: WBS Service (on page 783)**

Style: Document/literal wrapped

Input:

Message: ReadActivityWBSPath

Elements:

- ▶ One to many ActivityObjectId elements
- ▶ One to many field names from the **WBS Fields** (on page 788) field list.

Output:

Message: ReadActivityWBSPathResponse

Output: Zero to many WBS elements that contain WBS fields.

**ReadWBSPath Operation**

Description: Reads WBS objects from the database.

**Service: WBS Service (on page 783)**

Style: Document/literal wrapped

Input:

Message: ReadWBSPath

Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the **WBS Fields** (on page 788) field list.

Output:

Message: ReadWBSPathResponse

Output: Zero to many WBS elements that contain WBS fields.

## ReadAllWBS Operation

Description: Reads WBS objects from the database.

**Service:** *WBS Service* (on page 783)

Style: Document/literal wrapped

Input:

Message: ReadAllWBS

Elements:

- ▶ One to one ObjectId elements
- ▶ One to many field names from the **WBS Fields** (on page 788) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadAllWBSResponse

Output: Zero to many WBS elements that contain WBS fields.

## WBS Fields

Field	Type	Read Only	Filterable Orderable	Description
AnticipatedFinishDate	dateTime		X	The anticipated finish date of WBS, project and EPS elements. User-entered - not dependent upon any other fields. If there are no children, the anticipated finish date will be the

				finish date displayed in the columns.
AnticipatedStartDate	dateTime		X	The anticipated start date of WBS, project and EPS elements. User-entered - not dependent upon any other fields. If there are no children, the anticipated start date will be the start date displayed in the columns.
Code	string restricted to maxLength(40)		X	The short code assigned to each WBS element for identification. Each WBS element is uniquely identified by concatenating its own code together with its parents'

				codes.
ContainsSummaryData	boolean	X	X	The flag that indicates that the WBS has been summarized.
CreateDate	dateTime	X	X	The date this wbs was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this wbs.
CurrentBudget	double	X		The current budget for this WBS.
CurrentVariance	double	X		The current budget minus the total spending plan.
DistributedCurrentBudget	double	X		The sum of the current budget values from one level lower
EarnedValueComputeType	string restricted to " 'Activity Percent Complete' '0 / 100' '50 / 50' 'Custom Percent Complete' 'WBS Milestones Percent		X	The technique used for computing earned-value percent complete for activities within the

	Complete' 'Activity Percent Complete Using Resource Curves'			WBS. Valid values are 'Activity Percent Complete', '0 / 100', '50 / 50', 'Custom Percent Complete', 'WBS Milestones Percent Complete', and 'Activity Percent Complete Using Resource Curves'.
EarnedValueETCC omputeType	string restricted to " 'ETC = Remaining Cost for Activity' 'PF = 1' 'PF = Custom Value' 'PF = 1 / CPI' 'PF = 1 / (CPI * SPI)'		X	The technique for computing earned-value estimate-to-complete for activities within the WBS. Valid values are 'ETC = Remaining Cost for Activity', 'Performance Factor = 1', 'Performance Factor = Custom Value', 'Performance Factor = 1 / Cost

				Performance Index', and 'Performance Factor = 1 / (Cost Performance Index * Schedule Performance Index)'.  Performance Index', and 'Performance Factor = 1 / (Cost Performance Index * Schedule Performance Index)'.  Performance Index', and 'Performance Factor = 1 / (Cost Performance Index * Schedule Performance Index)'.
EarnedValueETCUserValue	double restricted to minInclusive(0.0)		X	The user-defined performance factor, PF, for computing earned-value estimate-to-complete. ETC is computed as PF * (BAC - BCWP).
EarnedValueUserPercent	double		X	The user-defined percent complete for computing earned value for activities within the WBS. A value of, say, 25 means that 25% of the planned amount is earned when the activity is started and



				the remainder is earned when the activity is completed.
EstimatedWeight	double		X	The estimation weight for the WBS element, used for top-down estimation. Top-down estimation weights are used to calculate the proportion of units that each WBS element or activity receives in relation to its siblings in the WBS hierarchy. Top-down estimation distributes estimated units to activities using the WBS hierarchy.
FinishDate	dateTime	X		The finish date of the WBS.
ForecastFinishDate	dateTime	X		The alternate end date to be

				optionally used by the scheduler. The user sets the alternate end date by dragging the project bar in the Gantt Chart while manually leveling the resource profile in a resource analysis layout.
ForecastStartDate	dateTime	X		The alternate start date to be optionally used by the scheduler. The user sets the alternate start date by dragging the project bar in the Gantt Chart while manually leveling the resource profile in a resource analysis layout.
GUID	string		X	The globally

	restricted to pattern '\{[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}\}'			unique ID generated by the system.
IndependentETCLaborUnits	double		X	The user-entered ETC total labor.
IndependentETCTotalCost	double		X	The user-entered ETC total cost.
IntegratedType	string restricted to " 'ERP' 'Gateway' 'PrimaveraCloudScope'		X	The flag indicating whether the WBS is integrated with an Enterprise Resource Planning (ERP) system. 'Fusion' indicates the WBS is integrated with Oracle Fusion. 'ERP' indicates the WBS is integrated with another ERP system. 'Gateway' indicates the WBS is integrated with Oracle Primavera Gateway.

IntegratedWBS	boolean	X	X	The indicator that determines whether a WBS is synchronized or not.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
IsWorkPackage	boolean		X	Indicates if this WBS is a workpackage in Oracle Primavera Cloud or not.
LastUpdateDate	dateTime	X	X	The date this wbs was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this wbs.

Name	string restricted to maxLength(100)		X	The name of the WBS element.
OBSName	string restricted to maxLength(100)	X	X	The name of the person/role in the organizatio n, sometimes referred to as the "responsibl e manager".
OBSObjectld	int		X	The unique ID of the project manager from the project's OBS tree who is responsibl e for the WBS.
Objectld	int		X	The unique ID generated by the system.
OriginalBudget	double		X	The original budget for the WBS element.
ParentObjectld	int		X	The unique ID of the parent WBS of this WBS in the hierarchy.

ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the project.
ProjectObjectId	int		X	The unique ID of the associated project.
ProposedBudget	double	X		The sum of the original budget plus the approved and pending budgets from the budget change log.
RolledUpFinishDate	dateTime	X		The finish date of the WBS. The involved summarized fields such as "RemainingFinish" and "ActualFinish" are rolled up on the fly.
RolledUpStartDate	dateTime	X		The start date of the WBS. The involved summarized fields such as "RemainingStart" and "ActualStart" are rolled

				up on the fly.
SequenceNumber	int		X	The sequence number for sorting.
StartDate	dateTime	X		The start date of the WBS.
Status	string restricted to 'Planned' 'Active' 'Inactive' 'What-If' 'Requested' 'Template'		X	The WBS status: 'Planned', 'Active', 'Inactive', 'What-If', 'Requested', or 'Template'.
StatusReviewerName	string	X		The names of the users reviewing status updates.
StatusReviewerObjectId	string		X	The unique IDs of the users reviewing status updates.
SummaryAccountingVarianceByCost	double	X		the Planned Value minus the Actual Cost. A negative value indicates that the Actual Cost has exceeded the

				Planned Value.
SummaryAccountingVarianceByLaborUnits	double	X		the Planned Value Labor Units minus the Actual Units. Negative value indicates that Actual Units have exceeded the Planned Value Labor Units.
SummaryActivityCount	int	X		the number of activities that are currently in progress.
SummaryActualDuration	double	X		The actual duration.
SummaryActualExpenseCost	double	X		The actual costs for all project expenses associated with the WBS.
SummaryActualFinishDate	dateTime	X		The latest actual finish date of all activities in the WBS.



SummaryActualLaborCost	double	X		The actual cost for all labor resources assigned to the activity.
SummaryActualLaborUnits	double	X		The actual labor units.
SummaryActualMaterialCost	double	X		The actual units for all material resources assigned to the activity.
SummaryActualNonLaborCost	double	X		The actual units for all nonlabor resources assigned to the activity.
SummaryActualNonLaborUnits	double	X		The actual nonlabor units.
SummaryActualStartDate	dateTime	X		The earliest actual start date of all activities in the WBS.
SummaryActualThisPeriodCost	double	X		The actual this period cost (will be labor or nonlabor).
SummaryActualThisPeriodLaborCost	double	X		The actual this period labor cost.

SummaryActualThisPeriodLaborUnits	double	X		The actual this period labor units.
SummaryActualThisPeriodMaterialCost	double	X		The actual this period material cost.
SummaryActualThisPeriodNonLaborCost	double	X		The actual this period nonlabor cost.
SummaryActualThisPeriodNonLaborUnits	double	X		The actual this period nonlabor units.
SummaryActualTotalCost	double	X		The actual labor cost + actual nonlabor cost + actual expense cost as of the project data date.
SummaryActualValueByCost	double	X		the actual total cost incurred on the activity as of the project data date, computed as Actual Labor Cost + Actual Nonlabor Cost + Actual Material Cost + Actual Expense Cost.

SummaryActualValueByLaborUnits	double	X	the actual total labor units for the activity as of the project data date (that is, actual total cost by labor units).
SummaryAtCompletionDuration	double	X	the total working time from the activity's current start date to the current finish date. The current start date is the planned start date until the activity is started, then it is the actual start date. The current finish date is the activity planned finish date while the activity is not started, the remaining finish date while the

				activity is in progress, and the actual finish date once the activity is completed. The total working time is computed using the activity's calendar.
SummaryAtCompletionExpenseCost	double	X		the sum of the actual plus remaining cost for all project expenses associated with the cost account. Computed as Actual Expense Cost + Remaining Expense Cost.
SummaryAtCompletionLaborCost	double	X		The sum of the actual plus remaining costs for all labor resources assigned to the activity. Computed as actual labor cost +

				remaining labor cost. Same as the planned labor costs if the activity is not started and the actual labor costs once the activity is completed.
SummaryAtCompletionLaborUnits	double	X		The sum of the actual plus remaining units for all labor resources assigned to the activity. Computed as actual labor units + remaining labor units. Same as the planned labor units if the activity is not started and the actual labor units once the activity is completed.
SummaryAtCompletionMaterialCost	double	X		The material cost at completion

				<p>. It is the sum of the actual plus remaining costs for all material resources assigned to the activity. Computed as actual material cost + remaining material cost. Same as the planned material costs if the activity is not started and the actual material costs once the activity is completed.</p>
SummaryAtCompletionNonLaborCost	double	X		<p>The nonlabor cost at completion . It is the sum of the actual plus remaining costs for all nonlabor resources assigned to the activity. Computed as actual nonlabor cost +</p>

				remaining nonlabor cost. Same as the planned nonlabor costs if the activity is not started and the actual nonlabor costs once the activity is completed.
SummaryAtCompletionNonLaborUnits	double	X		The nonlabor units at completion . It is the sum of the actual plus remaining units for all nonlabor resources assigned to the activity. Computed as actual nonlabor units + remaining nonlabor units. Same as the planned nonlabor units if the activity is not started and the actual nonlabor units once

				the activity is completed.
SummaryAtCompletionTotalCost	double	X		The estimated cost at completion for the activity. Computed as the actual total cost plus the estimate-to-complete cost; $EAC = ACWP + ETC$ . Note that the method for computing ETC depends on the earned-value technique selected for the activity's WBS.
SummaryAtCompletionTotalCostVariance	double	X		the Baseline Planned Total Cost - At Completion Total Cost.
SummaryBaselineCompletedActivityCount	int	X		The number of completed activities in the baseline.



SummaryBaseline Duration	double	X	the planned duration for the activity in the primary baseline. Planned duration is the total working time from the activity current start date to the current finish date. Same as the actual duration plus the remaining duration. The total working time is computed using the activity's calendar.
SummaryBaselineE xpenseCost	double	X	the planned cost for all project expenses associated with the activity in the primary baseline. Computed as the baseline actual expense cost plus the

				baseline remaining expense cost.
SummaryBaselineFinishDate	dateTime	X		The current latest finish date of all activities in the WBS for the current baseline.
SummaryBaselineInProgressActivityCount	int	X		the number of activities that should be currently in progress, according to the primary baseline. Computed using the baseline start and finish dates and the current data date.
SummaryBaselineLaborCost	double	X		the planned cost for all labor resources assigned to the activity in the primary baseline. Computed from the baseline At Completion labor units. If no

				resources are assigned, computed as the activity Baseline Planned Labor Units * Project Default Price / Time.
SummaryBaselineLaborUnits	double	X		the planned units for all labor resources assigned to the activity in the primary baseline. Computed as the baseline actual labor units plus the baseline remaining labor units.
SummaryBaselineMaterialCost	double	X		the planned cost for all material resources assigned to the activity in the primary baseline. Computed from the baseline At Completion nonlabor

				units. If no resources are assigned.
SummaryBaseline NonLaborCost	double	X		the planned cost for all nonlabor resources assigned to the activity in the primary baseline. Computed from the baseline At Completion nonlabor units. If no resources are assigned, computed as the activity Baseline Planned Nonlabor Units * Project Default Price / Time.
SummaryBaseline NonLaborUnits	double	X		the planned units for all nonlabor resources assigned to the activity in the primary baseline. Computed as the baseline actual

				nonlabor units plus the baseline remaining nonlabor units.
SummaryBaselineNotStartedActivityCount	int	X		The number of activities not started in the baseline.
SummaryBaselineStartDate	dateTime	X		The current earliest start date of all activities in the WBS for the current baseline.
SummaryBaselineTotalCost	double	X		the Planned Total Cost for the activity in the primary baseline, including labor resources, nonlabor resources, and project expenses. Baseline Planned Total Cost = Baseline Planned Labor Cost + Baseline Planned Nonlabor Cost +

				Baseline Planned Expense Cost.
SummaryBudgetAt CompletionByCost	double	X		the Planned Total Cost through activity completion . Computed as Planned Labor Cost + Planned Nonlabor Cost + Planned Expense Cost, same as the Planned Total Cost.
SummaryBudgetAt CompletionByLabor Units	double	X		the Baseline Labor Units
SummaryComplete dActivityCount	int	X		the number of activities that have an Actual Finish in the WBS.
SummaryCostPerc entComplete	double	X		The percent complete of costs for the resource assignmen ts in the wbs. Computed as Actual Units / At Complete

				Units * 100. Always in the range 0 to 100.
SummaryCostPercentOfPlanned	double	X		The activity actual cost percent of planned. Computed as actual total cost / baseline total cost * 100, or equivalently as ACWP / BAC * 100. The value can exceed 100. The baseline total cost is the activity's at completion cost from the current baseline. This field is named SummaryCostPercentOfBudget in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.

SummaryCostPerformanceIndexByCost	double	X		the Earned Value divided by the Actual Cost. A value less than 1 indicates that the Actual Cost has exceeded the Planned Value.
SummaryCostPerformanceIndexByLaborUnits	double	X		the Earned Value Labor Units / Actual Labor Units.
SummaryCostVarianceByCost	double	X		the Earned Value minus the Actual Cost. A negative value indicates that the Actual Cost has exceeded the Planned Value.
SummaryCostVarianceByLaborUnits	double	X		the Earned Value Labor Cost minus Actual Value Labor Cost.



SummaryCostVarianceIndex	double	X		The value that is calculated as the Cost Variance divided by Earned Value.
SummaryCostVarianceIndexByCost	double	X		the Cost Variance divided by Earned Value.
SummaryCostVarianceIndexByLaborUnits	double	X		the Cost Variance Labor Units divided by Earned Value Labor Units.
SummaryDurationPercentComplete	double	X		The activity actual duration percent of planned. Computed as (baseline planned duration - remaining duration) / baseline planned duration * 100.
SummaryDurationPercentOfPlanned	double	X		The summary actual duration percent of planned of all activities

				under this WBS. Computed as actual duration / baseline duration * 100. The value can exceed 100. The Baseline duration is the activity's at complete duration from the current baseline.
SummaryDurationVariance	double	X		The duration between the activity's baseline duration and the at complete duration. Computed as baseline duration - at completion duration.
SummaryEarnedValueByCost	double	X		the Budget at Completion * Performance % Complete. The method for computing the Performan

				<p>ce Percent Complete depends on the Earned Value technique selected for the activity's WBS. Budget at Completion is computed from the primary baseline.</p>
<p>SummaryEarnedValueByLaborUnits</p>	<p>double</p>	<p>X</p>		<p>the portion of the baseline labor units that is actually completed as of the project data date. Computed as Baseline Labor Units * Performance % Complete. The planned labor units performed is essentially the labor units Earned Value for the activity. The</p>

				method for computing the Performance % Complete depends on the Earned Value technique selected for the activity's WBS. The Baseline Labor Units is taken from the current baseline.
SummaryEstimateAtCompletionByCost	double	X		the Actual Cost plus the Estimate to Complete Cost. The method for computing Estimate to Complete depends on the Earned Value technique selected for the activity's WBS.
SummaryEstimateAtCompletionByLaborUnits	double	X		the Actual Labor Units + Estimate To Complete Labor Units.

				(Estimate To Complete Labor Units is calculated based off of the Earned Value setting on the WBS.)
SummaryEstimateAtCompletionHighPercentByLaborUnits	double	X		the high forecast of Estimate At Completion (EAC) by labor units.
SummaryEstimateAtCompletionLowPercentByLaborUnits	double	X		the low forecast of Estimate At Completion (EAC) by labor units.
SummaryEstimateToCompleteByCost	double	X		the Remaining Total Cost for the activity or the Performance Factor * (Budget at Completion - Earned Value), depending on the Earned Value technique selected for the activity's WBS

				(calculated from the primary baseline).
SummaryEstimateToCompleteByLaborUnits	double	X		the estimated quantity to complete the activity. Computed as either the remaining total units for the activity, or as Performance Factor * (Baseline Planned Labor Units - Planned Quantity of Work Performed), depending on the Earned Value Technique selected for the activity's WBS.
SummaryExpenseCostPercentComplete	double	X		The percent complete of cost for all expenses associated with the WBS. It is computed as Actual

				Expense Cost / At Complete Expense Cost * 100, and it is always in the range of 0 to 100.
SummaryExpenseCostVariance	double	X		the Baseline Planned Expense Cost - At Completion Expense Cost (At Completion Expense Cost = Actual Expense Cost + Remaining Expense Cost).
SummaryFinishDateVariance	double	X		The duration between the finish date in the current project and the baseline finish date. Calculated as finish date - baseline finish date.
SummaryInProgressActivityCount	int	X		the number of activities that are currently in progress.

SummaryLaborCostPercentComplete	double	X		The percent complete of cost for all labor resources assigned to the WBS. It is computed as Actual Labor Cost / At Complete Labor Cost * 100, and it is always in the range of 0 to 100.
SummaryLaborCostVariance	double	X		the Baseline Planned Labor Cost - At Completion Labor Cost.
SummaryLaborUnitsPercentComplete	double	X		The percent complete of units for all labor resources for the WBS. Computed as actual labor units / at complete labor units * 100. Always in the range 0 to 100.



SummaryLaborUnitsVariance	double	X		The difference between baseline labor units and at completion labor units. Calculated as baseline labor units - at completion labor units.
SummaryMaterialCostPercentComplete	double	X		The percent complete of cost for all material resources assigned to the WBS. It is computed as Actual Material Cost / At Complete Material Cost * 100, and it is always in the range of 0 to 100.
SummaryMaterialCostVariance	double	X		The variance that is calculated as Baseline Material Cost - At Completion Material Cost.

SummaryNonLabor CostPercentComplete	double	X	The percent complete of cost for all non-labor resources assigned to the WBS. It is computed as Actual Nonlabor Cost / At Complete Nonlabor Cost * 100, and it is always in the range of 0 to 100.
SummaryNonLabor CostVariance	double	X	the Baseline Planned Nonlabor Cost - At Completion Nonlabor Cost.
SummaryNonLabor UnitsPercentComplete	double	X	The percent complete of units for all nonlabor resources for the WBS. Computed as Actual Nonlabor Cost / At Completion Nonlabor Cost * 100. Always in the range 0

				to 100.
SummaryNonLabor UnitsVariance	double	X		The difference between baseline nonlabor units and at completion non labor units. Calculated as baseline nonlabor units - at completion nonlabor units.
SummaryNotStarte dActivityCount	int	X		the number of activities that are currently not started.
SummaryPerforma ncePercentComple tByCost	double	X		the percent complete of performance for all labor resources, nonlabor resources, and expenses. Computed as Earned Value / Budget At Completion * 100. Always in the range 0 to 100.

SummaryPerformancePercentCompleteByLaborUnits	double	X		the percent complete of performance for all labor resources. Computed as earned value labor units / baseline labor units * 100. Always in the range 0 to 100.
SummaryPlannedCost	double	X		The sum of all planned expense, non labor, labor, and material costs in the WBS.
SummaryPlannedDuration	double	X		The total working days between planned start and finish dates in the WBS.
SummaryPlannedExpenseCost	double	X		The sum of all planned expense costs in the WBS.
SummaryPlannedFinishDate	dateTime	X		The latest planned finish date of all activities in the WBS.

SummaryPlannedLaborCost	double	X		The sum of all planned labor costs in the WBS.
SummaryPlannedLaborUnits	double	X		The sum of all planned labor units in the WBS.
SummaryPlannedMaterialCost	double	X		The sum of all planned material costs in the WBS.
SummaryPlannedNonLaborCost	double	X		The sum of all planned non labor costs in the WBS.
SummaryPlannedNonLaborUnits	double	X		The sum of all planned non labor units in the WBS.
SummaryPlannedStartDate	dateTime	X		The earliest planned start date of all activities in the WBS.
SummaryPlannedValueByCost	double	X		the Budget at Completion * Schedule % Complete. The Schedule % Complete specifies how much of the

				activity's baseline duration has been completed so far. Budget at Completion is computed from the primary baseline
SummaryPlannedValueByLaborUnits	double	X		the portion of the baseline labor units that is scheduled to be completed as of the project data date. Computed as Baseline Labor Units * Schedule % Complete. The Schedule % Complete specifies how much of the activity's baseline duration has been completed so far. The Baseline Labor Units is

				taken from the current baseline.
SummaryProgressFinishDate	dateTime	X		The date the WBS is expected to be finished according to the progress made on the work products for the activities assigned to the WBS.
SummaryRemainingDuration	double	X		The total working time from the WBS remaining start date to the remaining finish date.
SummaryRemainingExpenseCost	double	X		The remaining costs for all project expenses associated with the activities in the WBS.
SummaryRemainingFinishDate	dateTime	X		The date the resource is scheduled to finish the remaining work for the activity. This date

				is computed by the project scheduler but can be updated manually by the project manager. Before the activity is started, the remaining finish date is the same as the planned finish date.
SummaryRemainingLaborCost	double	X		The remaining costs for all labor resources assigned to the activities. The remaining cost reflects the cost remaining for the WBS.
SummaryRemainingLaborUnits	double	X		The remaining units for all labor resources assigned to the activities. The remaining units



				reflects the work remaining to be done for the WBS.
SummaryRemainingMaterialCost	double	X		The remaining material costs for all project expenses associated with the activities in the WBS.
SummaryRemainingNonLaborCost	double	X		The remaining nonlabor costs for all project expenses associated with the activities in the WBS.
SummaryRemainingNonLaborUnits	double	X		The remaining units for all nonlabor resources assigned to the activities. The remaining units reflects the work remaining to be done for the WBS.
SummaryRemainingStartDate	dateTime	X		The earliest remaining start of all

				activities assigned to the WBS.
SummaryRemainingTotalCost	double	X		The sum of all remaining total costs in the WBS.
SummarySchedulePercentComplete	double	X		The measure that indicates how much of the WBS baseline duration has been completed so far. Computed based on where the current data date falls between the activity's baseline start and finish dates. If the data date is earlier than the baseline start, the schedule % complete is 0. If the data date is later than the baseline

				finish, the schedule % complete is 100. The schedule % complete indicates how much of the WBS duration should be currently completed, relative to the selected baseline.
SummarySchedulePercentCompleteByLaborUnits	double	X		the percent complete of units for all labor resources. Computed as Actual Labor Units / At Completion Labor Units * 100. Always in the range 0 to 100.
SummarySchedulePerformanceIndexByCost	double	X		the Earned Value divided by the Planned Value. A value less than 1 indicates that less work was actually performed

				than was scheduled.
SummarySchedule PerformanceIndex ByLaborUnits	double	X		the Earned Value Labor Units divided by Planned Value Labor Units.
SummarySchedule VarianceByCost	double	X		the Earned Value divided by the Planned Value. A negative value indicates that less work was actually performed than was scheduled.
SummarySchedule VarianceByLaborU nits	double	X		the Earned Value Labor Units minus the Planned Value Labor Units.
SummarySchedule VarianceIndex	double	X		The value that is calculated as the Schedule Variance Labor Units divided by Planned Value

				Labor Units.
SummarySchedule VarianceIndexByCost	double	X		the Schedule Variance divided by the Planned Value.
SummarySchedule VarianceIndexByLaborUnits	double	X		the Schedule Variance Labor Units divided by the Planned Value Labor Units.
SummaryStartDate Variance	double	X		The duration between the start date in the current project and the baseline start date. Calculated as start date - baseline start date.
SummaryToCompletePerformanceIndexByCost	double	X		the (Budget at Completion - Earned Value) divided by (Estimate at Completion - Actual

				Cost).
SummaryTotalCost Variance	double	X		The value that is calculated as baseline total cost - total cost.
SummaryTotalFloat	double	X		The amount of time the WBS can be delayed before delaying the project finish date. Total float can be computed as late start - early start or as late finish - early finish; this option can be set when running the project scheduler.
SummaryUnitsPercentComplete	double	X		The percent complete of units for the resource assignments in the wbs. Computed as Actual Units / At Complete Units * 100.

				Always in the range 0 to 100.
SummaryVariance AtCompletionByLa borUnits	double	X		the Baseline Planned Total Labor Units minus Estimate at Completion Labor Units.
TotalBenefitPlan	double	X		The sum of the monthly benefit plan.
TotalBenefitPlanTally	double	X		The sum of the monthly benefit plan tally.
TotalSpendingPlan	double	X		The sum of the monthly spending plan.
TotalSpendingPlan Tally	double	X		The sum of the monthly spending plan tally.
UnallocatedBudget	double	X		The difference between the total current and distributed current budget. Calculated as total current budget -

				distributed current budget.
UndistributedCurrentVariance	double	X		The total spending plan minus the total spending plan tally.
WBSCategoryObjectID	int		X	The unique ID of the associated WBS category value. Note that the label used for the WBS category is dynamic; it is controlled by the system administrator.
WBSMilestonePercentComplete	double	X		The WBSMilestonePercentComplete field determines whether to calculate earned value by defining milestones at the WBS level and assigning a level of significance or weight to each of them. As



				progress occurs and you mark each milestone complete, the WBS element's performance percent complete is calculated based on the weight of the milestone.
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## WBSMilestone Service

### Operations:

**CreateWBSMilestones Operation** (on page 842)

**ReadWBSMilestones Operation** (on page 842)

**UpdateWBSMilestones Operation** (on page 843)

**DeleteWBSMilestones Operation** (on page 843)

**GetFieldLengthWBSMilestone Operation** (on page 843)

### WSDL: WBSMilestone.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/WBSMilestone/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/WBSMilestoneService?wsdl>

<https://<hostname>:<port number>/p6ws/services/WBSMilestoneService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.wbsmilestone.WBSMilestoneService`

### Description:

WBS milestones are weighted milestones assigned at the WBS level that can be used for calculating performance percent complete.

For each WBS element, set the `EarnedValueComputeType` to be `WBS_MILESTONES_PERCENT_COMPLETE`, then define as many milestones as you need and assign a level of significance or weight to each of them. As progress occurs and you mark each milestone complete, the WBS element's performance percent complete is calculated based on the weight of the milestone, independent of its lower-level activities.

### CreateWBSMilestones Operation

Description: Creates multiple WBSMilestone objects in the database. You can create up to 1000 WBSMilestone objects with a single call.

**Service:** *WBSMilestone Service (on page 841)*

Style: Document/literal wrapped

Input:

Message: CreateWBSMilestones

Elements: WBSMilestone elements that contain **WBSMilestone Fields** (on page 844) fields

Required fields: The following fields are required when creating the WBSMilestone object:

- ▶ ProjectObjectId|WBSObjectId
- ▶ Name

Output:

Message: CreateWBSMilestonesResponse

Output: Zero to many ObjectId elements

### ReadWBSMilestones Operation

Description: Reads WBSMilestone objects from the database.

**Service:** *WBSMilestone Service (on page 841)*

Style: Document/literal wrapped

Input:

Message: ReadWBSMilestones

Elements: One to many field names from the **WBSMilestone Fields** (on page 844) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadWBSMilestonesResponse

Output: Zero to many WBSMilestone elements that contain WBSMilestone fields.

### UpdateWBSMilestones Operation

Description: Updates multiple WBSMilestone objects in the database. You can update up to 1000 WBSMilestone objects with a single call.

**Service:** *WBSMilestone Service* (on page 841)

Style: Document/literal wrapped

Input:

Message: UpdateWBSMilestones

Elements: WBSMilestone elements that contain **WBSMilestone Fields** (on page 844) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateWBSMilestonesResponse

Output: boolean

### DeleteWBSMilestones Operation

Description: Deletes multiple WBSMilestone objects in the database. You can delete up to 1000 WBSMilestone objects with a single call.

**Service:** *WBSMilestone Service* (on page 841)

Style: Document/literal wrapped

Input:

Message: DeleteWBSMilestones

Elements: One to many ObjectId elements

Output:

Message: DeleteWBSMilestonesResponse

Output: boolean

### GetFieldLengthWBSMilestone Operation

Description: Returns length of variable character fields for a BO.

**Service:** *WBSMilestone Service* (on page 841)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthWBSMilestone

Elements: FieldLength

Output:

Message: GetFieldLengthWBSMilestoneResponse

Elements: One to many FieldLengthWBSMilestones.

### WBSMilestone Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this WBS milestone was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this WBS milestone.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsCompleted	boolean		X	The flag that indicates whether the step has been completed.
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdate Date	dateTime	X	X	The date this WBS milestone was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this WBS milestone.
Name	string restricted to maxLength(120)		X	The name of the WBS milestone.
ObjectId	int		X	The unique ID generated by the system.

ProjectId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the project.
ProjectObjectId	int		X	The unique ID of the associated project.
SequenceNumber	int		X	The sequence number for sorting.
WBSCode	string restricted to maxLength(40)	X	X	The short code assigned to each WBS element for identification. Each WBS element is uniquely identified by concatenating its own code together with its parents' codes.
WBSName	string restricted to maxLength(100)	X	X	The name of the WBS element.
WBSObjectId	int		X	The unique ID of the WBS where the WBS milestone is assigned.
Weight	double		X	The weight that is assigned to the milestone.

## WbsReviewers Service

### Operations:

**CreateWbsReviewers Operation** (on page 846)

**ReadWbsReviewers Operation** (on page 846)

**UpdateWbsReviewers Operation** (on page 847)

**DeleteWbsReviewers Operation** (on page 847)

**GetFieldLengthWbsReviewers Operation** (on page 848)

### **WSDL: WbsReviewers.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/WbsReviewers/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/WbsReviewersService?wsdl>

<https://<hostname>:<port number>/p6ws/services/WbsReviewersService?wsdl>

### **Java Client Stub Class:**

`com.primavera.ws.p6.wbsmilestone.WbsReviewersService`

### **Description:**

WBS reviewers are users assigned to a WBS to enable them to view team member activity and assignment updates, make changes to the updates, and approve or reject the updates for the selected activities and assignments in the WBS.

## **CreateWbsReviewers Operation**

Description: Creates a single WbsReviewers object in the database.

You can create up to five WbsReviewers objects per WBS node. Each WbsReviewer object must be created in a separate call.

**Service:** *WbsReviewers Service* (on page 845)

Style: Document/literal wrapped

Input:

Message: CreateWbsReviewers

Elements: WbsReviewers elements that contain **WbsReviewers Fields** (on page 848)  
Fields fields

Required fields: The following fields are required when creating the WbsReviewers object:

- ▶ StatusReviewerId
- ▶ WbsId

Output:

Message: CreateWbsReviewersResponse

Output: Zero to many ObjectId elements

## **ReadWbsReviewers Operation**

Description: Reads WbsReviewers objects from the database.

**Service:** *WbsReviewers Service* (on page 845)

Style: Document/literal wrapped

**Input:**

Message: ReadWbsReviewers

Elements: One to many field names from the **WbsReviewers Fields** (on page 848)  
Fields field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

**Output:**

Message: ReadWbsReviewersResponse

Output: Zero to many WbsReviewers elements that contain WbsReviewers fields.

### UpdateWbsReviewers Operation

Description: Updates multiple WbsReviewers objects in the database. You can update up to 1000 WbsReviewers objects with a single call.

**Service:** *WbsReviewers Service* (on page 845)

Style: Document/literal wrapped

**Input:**

Message: UpdateWbsReviewers

Elements: WbsReviewers elements that contain **WbsReviewers Fields** (on page 848) fields.  
Required fields: The ObjectId must be specified.

**Output:**

Message: UpdateWbsReviewersResponse

Output: boolean

### DeleteWbsReviewers Operation

Description: Deletes a single WbsReviewers object in the database.

You cannot delete all WbsReviewers objects assigned to a WBS node. There must be at least one WbsReviewers objects for each WBS node.

If the ReviewType field of the project contains 'Everyone Must Review', reviewers for the project cannot be deleted, only replaced. You can replace a reviewer using the **UpdateWbsReviewers Operation** (on page 847).

**Service:** *WbsReviewers Service* (on page 845)

Style: Document/literal wrapped

**Input:**

Message: DeleteWbsReviewers

Elements: One to many ObjectId elements

Output:

Message: DeleteWbsReviewersResponse

Output: boolean

### GetFieldLengthWbsReviewers Operation

Description: Returns length of variable character fields for a BO.

**Service:** *WbsReviewers Service* (on page 845)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthWbsReviewers

Elements: FieldLength

Output:

Message: GetFieldLengthWbsReviewersResponse

Elements: One to many FieldLengthWbsReviewers

### WbsReviewers Fields

Field	Type	Read Only	Filterable Orderable	Description
ObjectId	int		X	The unique ID generated by the system.
StatusReviewerId	int		X	The UserId of the user assigned as a reviewer.
WbsId	int		X	The unique ID of the WBS to which the user is assigned as a reviewer.



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# Resource Services

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## Resource Service

### Operations:

- CreateResources Operation** (on page 850)
- ReadResources Operation** (on page 850)
- UpdateResources Operation** (on page 851)
- DeleteResources Operation** (on page 851)
- GetFieldLengthResource Operation** (on page 851)
- ReadResourcePath Operation** (on page 852)
- LoadActivities Operation** (on page 852)

### WSDL: Resource.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Resource/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/ResourceService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resource.ResourceService`

### Description:

Resources include the personnel and equipment that perform work on activities across all projects. Resources are always time-based and are generally reused between activities and/or projects. You can create a resource pool that reflects your organization's resource structure and supports the assignment of resources to activities. You can also distinguish between labor and nonlabor resources. You can create and assign resource calendars and define a resource's roles, contact information, and time-varying prices. If a resource uses Timesheets, you can also assign a login name and password to the resource.

Define a master list of resources consisting of the resources necessary to complete the projects in your enterprise structure. Then, group resources to create an easily accessible pool from which you can draw when assigning resources to a project. For each resource, set availability limits, unit prices, and a calendar to define its standard worktime and nonworktime, then allocate resources to the activities that require them. To enable grouping and rollups of your resources across the enterprise, set up resource codes and assign code values.

Resources are hierarchical and are different than expenses. While resources are time-based and generally extend across multiple activities and/or projects, expenses are one-time expenditures for non-reusable items required by activities. Expenses are not included when resources are leveled.

A resource may be specified as a primary resource when assigning to activities. An activity's primary resource is typically the resource who is responsible for coordinating an activity's work. Using Timesheets, the primary resource also updates the activity's start date, finish date, and expected end date. In addition, if an activity has any nonlabor resources, the primary resource may also be responsible for reporting the nonlabor resource's hours/units as well. With the exception of nonlabor resources, all other resources are responsible for reporting their own hours for assigned activities.

This business object supports user defined fields (UDFs) and codes. Use the UDFValue business object to assign UDFs, and the ResourceCodeAssignment business object to assign ResourceCodes.

### CreateResources Operation

Description: Creates multiple Resource objects in the database. You can create up to 1000 Resource objects with a single call.

**Service:** *Resource Service (on page 849)*

Style: Document/literal wrapped

Input:

Message: CreateResources

Elements: Resource elements that contain **Resource Fields** (on page 853) fields

Required fields: The following fields are required when creating the Resource object:

- ▶ Id
- ▶ Name

Output:

Message: CreateResourcesResponse

Output: Zero to many ObjectId elements

### ReadResources Operation

Description: Reads Resource objects from the database.

**Service:** *Resource Service (on page 849)*

Style: Document/literal wrapped

Input:

Message: ReadResources

Elements: One to many field names from the **Resource Fields** (on page 853) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourcesResponse

Output: Zero to many Resource elements that contain Resource fields.

### UpdateResources Operation

Description: Updates multiple Resource objects in the database. You can update up to 1000 Resource objects with a single call.

**Service:** *Resource Service* (on page 849)

Style: Document/literal wrapped

Input:

Message: UpdateResources

Elements: Resource elements that contain **Resource Fields** (on page 853) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateResourcesResponse

Output: boolean

### DeleteResources Operation

Description: Deletes multiple Resource objects in the database. You can delete up to 1000 Resource objects with a single call.

**Service:** *Resource Service* (on page 849)

Style: Document/literal wrapped

Input:

Message: DeleteResources

Elements: One to many ObjectId DeleteWithReplacements

Output:

Message: DeleteResourcesResponse

Output: boolean

### GetFieldLengthResource Operation

Description: Returns length of variable character fields for a BO.

**Service:** *Resource Service* (on page 849)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResource

Elements: FieldLength

Output:

Message: GetFieldLengthResourceResponse

Elements: One to many FieldLengthResources.

### ReadResourcePath Operation

Description: Reads Resource objects from the database.

**Service:** *Resource Service* (on page 849)

Style: Document/literal wrapped

Input:

Message: ReadResourcePath

Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the **Resource Fields** (on page 853) field list.

Output:

Message: ReadResourcePathResponse

Output: Zero to many Resource elements that contain Resource fields.

### LoadActivities Operation

Description: Loads activities assigned to the specified resource.

**Service:** *Resource Service* (on page 849)

Input:

Message: LoadActivities

Elements:

Name	Type	Description	Required
ObjectId	int	Unique identifier for the resource.	Yes
Fields	string	One or more <b>Resource Fields</b> (on page 853) from the resource fields list.	Yes

WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No

Output:

Message: LoadActivitiesResponse

Elements:

Name	Type	Description
ActivityObjectIds	string	Unique identifiers for the activities returned on operation success.

## Resource Fields

Field	Type	Read Only	Filterable Orderable	Description
AutoCompute Actuals	boolean		X	The flag that identifies whether the activity actual and remaining units, start dates and finish dates for the resource are computed automatically using the planned dates, planned units and the

				activity's schedule percent complete. If this option is selected, the actual/remaining units and actual dates are automatically updated when project actuals are applied. This assumes that all work by the resource proceeds according to plan.
CalculateCostFromUnits	boolean		X	the option to indicate that any new assignments for this resource will have its costs recalculated whenever any quantity changes occur.
CalendarName	string restricted to maxLength(255)	X	X	The name of the calendar.
CalendarObjectId	int		X	The unique ID of the calendar assigned to

				the resource. Resource calendars can be assigned from the global calendar pool or the resource calendar pool.
CreateDate	dateTime	X	X	The date this resource was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this resource.
CurrencyId	string restricted to maxLength(6)	X	X	The unique currency abbreviation for the currency associated with this resource.
CurrencyName	string restricted to maxLength(40)	X	X	The name of the currency associated with this resource.
CurrencyObjectId	int		X	The unique ID of the currency associated with this resource.
DefaultUnitsPerTime	double restricted to		X	The default units/time

	minInclusive(0.0)			setting, which determines the value of the remaining units/time and planned units/time when a resource assignment is added.
EffectiveDate	dateTime	X		the earliest day when the resource becomes overallocated, calculated during the summarization.
EmailAddress	string restricted to maxLength(255)		X	The e-mail address for the resource.
EmployeeId	string restricted to maxLength(40)		X	The resource identifier within the organization, typically the employee number or social security number.
GUID	string restricted to pattern '\{[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{8}\}'		X	The globally unique ID generated by the



	{4}-[0-9a-fA-F]{12}\}'			system.
Id	string restricted to maxLength(255)		X	The short code that uniquely identifies the resource.
IntegratedType	string restricted to " 'ERP' 'Fusion' 'Gateway' 'PrimaveraCloudScope'		X	The flag indicating whether the resource is integrated with an Enterprise Resource Planning (ERP) system. 'Fusion' indicates the resource is integrated with Oracle Fusion. 'ERP' indicates the resource is integrated with another ERP system. 'Gateway' indicates the resource is integrated with Oracle Primavera Gateway.
IsActive	boolean		X	The flag that indicates whether the

				resource is currently active. Non-active resources may have left the organization but are not deleted from the system since they may have actual hours.
IsOverTimeAllowed	boolean		X	The flag that indicates whether the resource is allowed to log overtime hours.
LastUpdateDate	dateTime	X	X	The date this resource was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this resource.
LocationName	string restricted to maxLength(100)	x	X	The name of the location assigned to the resource.
LocationObjectID	int		X	The unique ID of the location assigned to

				the resource.
MaxUnitsPer Time	double	X		The maximum work units per time this resource can perform on all their assigned activities. For example, a person working full time could perform 8 hours of work per day. A department of five people may perform at 5 days per day.
Name	string restricted to maxLength(255)		X	The name of the resource.
ObjectId	int		X	The unique ID generated by the system.
OfficePhone	string restricted to maxLength(32)		X	The office phone number for the resource.
OtherPhone	string restricted to maxLength(32)		X	The other phone numbers for the resource - pager,

				home phone, cell phone, etc.
OvertimeFactor	double restricted to minInclusive(0.0) maxInclusive(10.0)		X	The overtime factor used to compute the overtime price for the resource.
ParentObjectId	int		X	The unique ID of the parent resource of this resource in the hierarchy.
PricePerUnit	double	X		the planned price per unit for the project expense. This number is multiplied by the planned number of units to compute the planned cost.
PrimaryRoleId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the primary role for this resource.
PrimaryRoleName	string restricted to maxLength(100)	X	X	The name of the primary role for this resource

PrimaryRoleObjectId	int		X	The unique ID of the role that is assigned as the resource's primary role.
ResourceNotes	string			The notes about the resource.
ResourceType	string restricted to 'Labor' 'Nonlabor' 'Material'		X	The resource type: "Labor", "Nonlabor", or "Material".
SequenceNumber	int		X	The sequence number for sorting.
ShiftObjectId	int		X	The unique ID of the shift associated with the resource.
TimesheetApprovalManager	string	X		The resource manager assigned to approve timesheets for the resource.
TimesheetApprovalManagerObjectId	int		X	The unique ID of the resource manager assigned to approve timesheets for the resource.

Title	string restricted to maxLength(100)		X	The title of the resource.
UnitOfMeasureAbbreviation	string restricted to maxLength(16)	X	X	The abbreviatio n of the unit of measure.
UnitOfMeasureName	string restricted to maxLength(100)	X	X	The name of the unit of measure.
UnitOfMeasureObjectId	int		X	The unit of measure this material resource uses.
UseTimesheets	boolean	X	X	The flag that indicates whether the resource uses timesheets.
UserName	string restricted to maxLength(255)	X	X	The user's login name.
UserObjectId	int		X	The unique ID of the associated user.

## ResourceCodeAssignment Service

### Operations:

**CreateResourceCodeAssignments Operation** (on page 863)

**ReadResourceCodeAssignments Operation** (on page 863)

**UpdateResourceCodeAssignments Operation** (on page 864)

**DeleteResourceCodeAssignments Operation** (on page 864)

**GetFieldLengthResourceCodeAssignment Operation** (on page 865)

### WSDL: ResourceCodeAssignment.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceCodeAssignment/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceCodeAssignmentService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/ResourceCodeAssignmentService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resourcecodeassignment.ResourceCodeAssignmentService`

### Description:

A resource code assignment business object represents the assignment of a resource code to a resource. For each resource code type, a resource may have zero or one resource codes assigned.

Note that this business object has a multi-part object ID; its object ID is a combination of its resource object ID and its resource code object ID.

## CreateResourceCodeAssignments Operation

Description: Creates multiple ResourceCodeAssignment objects in the database. You can create up to 1000 ResourceCodeAssignment objects with a single call.

**Service:** *ResourceCodeAssignment Service (on page 862)*

Style: Document/literal wrapped

Input:

Message: CreateResourceCodeAssignments

Elements: ResourceCodeAssignment elements that contain **ResourceCodeAssignment Fields** (on page 865) fields

Required fields:

- ▶ ResourceObjectId
- ▶ ResourceCodeObjectId

Output:

Message: CreateResourceCodeAssignmentsResponse

Output: Zero to many ObjectId elements

## ReadResourceCodeAssignments Operation

Description: Reads ResourceCodeAssignment objects from the database.

**Service:** *ResourceCodeAssignment Service (on page 862)*

Style: Document/literal wrapped

Input:

Message: ReadResourceCodeAssignments

Elements: One to many field names from the **ResourceCodeAssignment Fields** (on page 865) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceCodeAssignmentsResponse

Output: Zero to many ResourceCodeAssignment elements that contain ResourceCodeAssignment fields.

### UpdateResourceCodeAssignments Operation

Description: Updates multiple ResourceCodeAssignment objects in the database. You can update up to 1000 ResourceCodeAssignment objects with a single call.

**Service:** *ResourceCodeAssignment Service* (on page 862)

Style: Document/literal wrapped

Input:

Message: UpdateResourceCodeAssignments

Elements: ResourceCodeAssignment elements that contain **ResourceCodeAssignment Fields** (on page 865) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateResourceCodeAssignmentsResponse

Output: boolean

### DeleteResourceCodeAssignments Operation

Description: Deletes multiple ResourceCodeAssignment objects in the database. You can delete up to 1000 ResourceCodeAssignment objects with a single call.

**Service:** *ResourceCodeAssignment Service* (on page 862)

Style: Document/literal wrapped

Input:

Message: DeleteResourceCodeAssignments

Elements: One to many ObjectId elements

Output:

Message: DeleteResourceCodeAssignmentsResponse



Output: boolean

### GetFieldLengthResourceCodeAssignment Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceCodeAssignment Service (on page 862)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceAssignment

Elements: FieldLength

Output:

Message: GetFieldLengthResourceCodeAssignmentResponse

Elements: One to many FieldLengthResourceCodeAssignments.

### ResourceCodeAssignment Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this code assignment was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this code assignment.
LastUpdateDate	dateTime	X	X	The date this code assignment was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this code assignment.
ResourceCodeDescription	string restricted to maxLength(100)	X	X	The description of the associated resource code.
ResourceCodeObjectId	int		X	The unique ID of the associated resource code.

ResourceCodeTypeName	string restricted to maxLength(40)	X	X	The name of the parent resource code type.
ResourceCodeObjectId	int	X	X	The unique ID of the parent resource code type.
ResourceCodeValue	string restricted to maxLength(40)	X	X	The value of the associated resource code.
ResourceId	string restricted to maxLength(20)	X	X	The short code that uniquely identifies the associated resource.
ResourceName	string restricted to maxLength(100)	X	X	The name of the resource to which the resource code is assigned.
ResourceObjectId	int		X	The unique ID of the resource to which the resource code is assigned.

## RoleCodeAssignment Service

### Operations:

**CreateRoleCodeAssignments Operation** (on page 867)

**ReadRoleCodeAssignments Operation** (on page 867)

**UpdateRoleCodeAssignments Operation** (on page 868)

**DeleteRoleCodeAssignments Operation** (on page 868)

**GetFieldLengthRoleCodeAssignment Operation** (on page 869)

### WSDL: RoleCodeAssignment.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RoleCodeAssignment/V1>

**Default Transport URLs:**

http://<hostname>:<port number>/p6ws/services/RoleCodeAssignmentService?wsdl  
https://<hostname>:<port number>/p6ws/services/RoleCodeAssignmentService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.rolecodeassignment.RoleCodeAssignmentService

**Description:**

A role code assignment business object represents the assignment of a role code to a role. For each role code type, a role may have zero or one role codes assigned.

Note that this business object has a multi-part object ID; its object ID is a combination of its role object ID and its role code object ID.

**CreateRoleCodeAssignments Operation**

Description: Creates multiple RoleCodeAssignment objects in the database. You can create up to 1000 RoleCodeAssignment objects with a single call.

**Service:** *RoleCodeAssignment Service* (on page 866)

Style: Document/literal wrapped

Input:

Message: CreateRoleCodeAssignments

Elements: RoleCodeAssignment elements that contain **RoleCodeAssignment Fields** (on page 869) fields

Required fields:

- ▶ RoleObjectId
- ▶ RoleCodeObjectId

Output:

Message: CreateRoleCodeAssignmentsResponse

Output: Zero to many ObjectId elements

**ReadRoleCodeAssignments Operation**

Description: Reads RoleCodeAssignment objects from the database.

**Service:** *RoleCodeAssignment Service* (on page 866)

Style: Document/literal wrapped

Input:

Message: ReadRoleCodeAssignments

Elements: One to many field names from the **RoleCodeAssignment Fields** (on page 869) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRoleCodeAssignmentsResponse

Output: Zero to many RoleCodeAssignment elements that contain RoleCodeAssignment fields.

### UpdateRoleCodeAssignments Operation

Description: Updates multiple RoleCodeAssignment objects in the database. You can update up to 1000 RoleCodeAssignment objects with a single call.

**Service:** *RoleCodeAssignment Service (on page 866)*

Style: Document/literal wrapped

Input:

Message: UpdateRoleCodeAssignments

Elements: RoleCodeAssignment elements that contain **RoleCodeAssignment Fields** (on page 869) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRoleCodeAssignmentsResponse

Output: boolean

### DeleteRoleCodeAssignments Operation

Description: Deletes multiple RoleCodeAssignment objects in the database. You can delete up to 1000 RoleCodeAssignment objects with a single call.

**Service:** *RoleCodeAssignment Service (on page 866)*

Style: Document/literal wrapped

Input:

Message: DeleteRoleCodeAssignments

Elements: One to many ObjectId elements

Output:

Message: DeleteRoleCodeAssignmentsResponse

Output: boolean

## GetFieldLengthRoleCodeAssignment Operation

Description: Returns length of variable character fields for a BO.

**Service:** *RoleCodeAssignment Service (on page 866)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRoleAssignment

Elements: FieldLength

Output:

Message: GetFieldLengthRoleCodeAssignmentResponse

Elements: One to many FieldLengthRoleCodeAssignments.

## RoleCodeAssignment Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this code assignment was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this code assignment.
LastUpdateDate	dateTime	X	X	The date this code assignment was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this code assignment.
RoleCodeDescription	string restricted to maxLength(100)	X	X	The description of the associated role code.
RoleCodeObjectId	int		X	The unique ID of the associated role code.
RoleCodeType	string	X	X	The name of the

eName	restricted to maxLength(40)			parent role code type.
RoleCodeType eObjectId	int	X	X	The unique ID of the parent role code type.
RoleCodeValue	string restricted to maxLength(40)	X	X	The value of the associated role code.
RoleId	string restricted to maxLength(20)	X	X	The short code that uniquely identifies the associated role.
RoleName	string restricted to maxLength(100)	X	X	The name of the role to which the role code is assigned.
RoleObjectId	int		X	The unique ID of the role to which the role code is assigned.

## ResourceCurve Service

### Operations:

**CreateResourceCurves Operation** (on page 871)

**ReadResourceCurves Operation** (on page 871)

**UpdateResourceCurves Operation** (on page 872)

**DeleteResourceCurves Operation** (on page 872)

**GetFieldLengthResourceCurve Operation** (on page 873)

### WSDL: ResourceCurve.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceCurve/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceCurveService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ResourceCurveService?wsdl>

**Java Client Stub Class:**

com.primavera.ws.p6.resourcecurve.ResourceCurveService

**Description:**

Resource curves enable you to specify how you want resource units or costs spread over the duration of an activity. Resource units and costs are distributed evenly during an activity unless you specify nonlinear distribution using curves.

You can assign a resource curve to any resource or role assignment on activities with a duration type of Fixed Duration and Units/Time or Fixed Duration and Units.

If timesheet data exists for the actuals, curves are ignored for the actuals and are spread using the timesheet data. Activities with timesheet data continue to spread the remaining units using the curve.

In order to use curves to calculate the Actual Units/Cost and EV Units/Costs, the new project setting that uses duration percent complete to calculate actuals should be marked.

**Notes**

- ▶ Resource curves do not support expenses. The Accrual Type will continue to spread the expenses.
- ▶ Resource lag is taken into consideration. The curve should begin on the "lagged start date."
- ▶ Resource curves are reflected in the Resource Usage Profile and Resource Usage Spreadsheet in the Project Management application.

**CreateResourceCurves Operation**

Description: Creates multiple ResourceCurve objects in the database. You can create up to 1000 ResourceCurve objects with a single call.

**Service:** *ResourceCurve Service (on page 870)*

Style: Document/literal wrapped

**Input:**

Message: CreateResourceCurves

Elements: ResourceCurve elements that contain **ResourceCurve Fields** (on page 873) fields

Required fields: You must supply the Name field.

**Output:**

Message: CreateResourceCurvesResponse

Output: Zero to many ObjectID elements

**ReadResourceCurves Operation**

Description: Reads ResourceCurve objects from the database.

**Service:** *ResourceCurve Service (on page 870)*

Style: Document/literal wrapped

Input:

Message: ReadResourceCurves

Elements: One to many field names from the **ResourceCurve Fields** (on page 873) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceCurvesResponse

Output: Zero to many ResourceCurve elements that contain ResourceCurve fields.

### UpdateResourceCurves Operation

Description: Updates multiple ResourceCurve objects in the database. You can update up to 1000 ResourceCurve objects with a single call.

**Service:** *ResourceCurve Service (on page 870)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceCurves

Elements: ResourceCurve elements that contain **ResourceCurve Fields** (on page 873) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateResourceCurvesResponse

Output: boolean

### DeleteResourceCurves Operation

Description: Deletes multiple ResourceCurve objects in the database. You can delete up to 1000 ResourceCurve objects with a single call.

**Service:** *ResourceCurve Service (on page 870)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceCurves

Elements: One to many ObjectId elements

Output:



Message: DeleteResourceCurvesResponse

Output: boolean

### GetFieldLengthResourceCurve Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceCurve Service (on page 870)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceCurve

Elements: FieldLength

Output:

Message: GetFieldLengthResourceCurveResponse

Elements: One to many FieldLengthResourceCurves.

### ResourceCurve Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this resource curve was created.
CreateUser	string	X	X	The name of the user that created this resource curve.
IsDefault	boolean	X	X	The flag that identifies the default curve. The default curve can not be edited.
LastUpdate Date	dateTime	X	X	The date this resource curve was last updated.
LastUpdate User	string	X	X	The name of the user that last updated this resource curve.
Name	string restricted to maxLength(6)		X	The name of the resource curve.

	0)			
ObjectID	int		X	The unique ID generated by the system.
Values	ValueType See ValueType table below.			See Values Table below.

### ValueType Table

Field	Type
Value0	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value5	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value10	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value15	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value20	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value25	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value30	double restricted to minInclusive(0.0)

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	maxInclusive(100.0)
Value35	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value40	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value45	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value50	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value55	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value60	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value65	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value70	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value75	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value80	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value85	double restricted to

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	minInclusive(0.0) maxInclusive(100.0)
Value90	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value95	double restricted to minInclusive(0.0) maxInclusive(100.0)
Value100	double restricted to minInclusive(0.0) maxInclusive(100.0)

## ResourceRate Service

### Operations:

**CreateResourceRates Operation** (on page 877)

**ReadResourceRates Operation** (on page 877)

**UpdateResourceRates Operation** (on page 877)

**DeleteResourceRates Operation** (on page 878)

**GetFieldLengthResourceRate Operation** (on page 878)

### WSDL: ResourceRate.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceRate/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceRateService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ResourceRateService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resourcerate.ResourceRateService`

### Description:

Resource rates provide a way of specifying multiple resource prices and maximum units per time values that vary over time.

## CreateResourceRates Operation

Description: Creates multiple ResourceRate objects in the database. You can create up to 1000 ResourceRate objects with a single call.

**Service:** *ResourceRate Service (on page 876)*

Style: Document/literal wrapped

Input:

Message: CreateResourceRates

Elements: ResourceRate elements that contain **ResourceRate Fields** (on page 879) fields

Required fields: The following fields are required when creating the ResourceRate object:

- ▶ ResourceObjectId
- ▶ EffectiveDate

Output:

Message: CreateResourceRatesResponse

Output: Zero to many ObjectId elements

## ReadResourceRates Operation

Description: Reads ResourceRate objects from the database.

**Service:** *ResourceRate Service (on page 876)*

Style: Document/literal wrapped

Input:

Message: ReadResourceRates

Elements: One to many field names from the **ResourceRate Fields** (on page 879) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceRatesResponse

Output: Zero to many ResourceRate elements that contain ResourceRate fields.

## UpdateResourceRates Operation

Description: Updates multiple ResourceRate objects in the database. You can update up to 1000 ResourceRate objects with a single call.

**Service:** *ResourceRate Service (on page 876)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceRates

Elements: ResourceRate elements that contain **ResourceRate Fields** (on page 879) fields.

Required fields: The Objectid must be specified.

Output:

Message: UpdateResourceRatesResponse

Output: boolean

### DeleteResourceRates Operation

Description: Deletes multiple ResourceRate objects in the database. You can delete up to 1000 ResourceRate objects with a single call.

**Service:** *ResourceRate Service (on page 876)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceRates

Elements: One to many Objectid elements

Output:

Message: DeleteResourceRatesResponse

Output: boolean

### GetFieldLengthResourceRate Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceRate Service (on page 876)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceRate

Elements: FieldLength

Output:

Message: GetFieldLengthResourceRateResponse

Elements: One to many FieldLengthResourceRates.

## ResourceRate Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this resource rate was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this resource rate.
EffectiveDate	dateTime		X	The effective date for the resource price and maximum units per time.
LastUpdateDate	dateTime	X	X	The date this resource rate was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this resource rate.
MaxUnitsPerTime	double restricted to minInclusive(0.0)		X	The maximum work units per time this resource can perform on all their assigned activities. For example, a person working full time could perform 8 hours of work per day. A department of five people may perform at 5 days per day.
ObjectId	int		X	The unique ID generated by the system.
PricePerUnit	double restricted to minInclusive(0.0)		X	The non-overtime price per time for the resource. This

	maxInclusive(9.999999999999999E12)			price is used to compute costs for any activities the resource is assigned to. In general, cost = units * price per time.
PricePerUnit2	double restricted to minInclusive(0.0) maxInclusive(9.999999999999999E12)		X	The non-overtime price per time for the resource. This price is used to compute costs for any activities the resource is assigned to. In general, cost = units * price per time.
PricePerUnit3	double restricted to minInclusive(0.0) maxInclusive(9.999999999999999E12)		X	The non-overtime price per time for the resource. This price is used to compute costs for any activities the resource is assigned to. In general, cost = units * price per time.
PricePerUnit4	double restricted to minInclusive(0.0) maxInclusive(9.999999999999999E12)		X	The non-overtime price per time for the resource. This price is used to compute costs for any activities the resource is assigned to. In general, cost = units * price per time.
PricePerUnit5	double restricted to minInclusive(0.0) maxInclusive(9.999999999999999E12)		X	The non-overtime price per time for the resource. This price is used to compute costs for any activities the



	12)			resource is assigned to. In general, cost = units * price per time.
ResourceId	string restricted to maxLength(20)	X	X	The short code that uniquely identifies the resource.
ResourceName	string restricted to maxLength(100)	X	X	The name of the resource.
ResourceObjectId	int		X	The unique ID of the associated resource.
ShiftPeriodObjectId	int		X	The unique ID of the associated shift.

## ResourceRole Service

### Operations:

**CreateResourceRoles Operation** (on page 882)

**ReadResourceRoles Operation** (on page 882)

**UpdateResourceRoles Operation** (on page 883)

**DeleteResourceRoles Operation** (on page 883)

**GetFieldLengthResourceRole Operation** (on page 883)

### WSDL: ResourceRole.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceRole/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceRoleService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ResourceRoleService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resourcerole.ResourceRoleService`

**Description:**

A resource role object represents an association between a resource object and a role object. A proficiency may be assigned to a resource role.

Note that this business object has a multi-part object ID; its object ID is a combination of its resource object ID and its role object ID.

### CreateResourceRoles Operation

Description: Creates multiple ResourceRole objects in the database. You can create up to 1000 ResourceRole objects with a single call.

**Service:** *ResourceRole Service (on page 881)*

Style: Document/literal wrapped

Input:

Message: CreateResourceRoles

Elements: ResourceRole elements that contain **ResourceRole Fields** (on page 884) fields

Required fields:

- ▶ ResourceObjectId
- ▶ RoleObjectId

Output:

Message: CreateResourceRolesResponse

Output: Zero to many ObjectId elements

### ReadResourceRoles Operation

Description: Reads ResourceRole objects from the database.

**Service:** *ResourceRole Service (on page 881)*

Style: Document/literal wrapped

Input:

Message: ReadResourceRoles

Elements: One to many field names from the **ResourceRole Fields** (on page 884) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceRolesResponse

Output: Zero to many ResourceRole elements that contain ResourceRole fields.

### UpdateResourceRoles Operation

Description: Updates multiple ResourceRole objects in the database. You can update up to 1000 ResourceRole objects with a single call.

**Service:** *ResourceRole Service (on page 881)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceRoles

Elements: ResourceRole elements that contain **ResourceRole Fields** (on page 884) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateResourceRolesResponse

Output: boolean

### DeleteResourceRoles Operation

Description: Deletes multiple ResourceRole objects in the database. You can delete up to 1000 ResourceRole objects with a single call.

**Service:** *ResourceRole Service (on page 881)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceRoles

Elements: One to many ObjectId elements

Output:

Message: DeleteResourceRolesResponse

Output: boolean

### GetFieldLengthResourceRole Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceRole Service (on page 881)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceRole

Elements: FieldLength

Output:

Message: GetFieldLengthResourceRoleResponse

Elements: One to many FieldLengthResourceRoles.

### ResourceRole Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this resource role was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this resource role.
LastUpdate Date	dateTime	X	X	The date this resource role was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this resource role.
Proficiency	string restricted to '1 - Master' '2 - Expert' '3 - Skilled' '4 - Proficient' '5 - Inexperienced'			The resource's proficiency at performing this role. The values are '1 - Master', '2 - Expert', '3 - Skilled', '4 - Proficient', and '5 - Inexperienced'. If the current user does not have the ViewResourceRole Proficiency global security privilege, this field may not be accessed.
ResourceId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the resource.
ResourceName	string restricted to maxLength(1	X	X	The name of the resource.

	00)			
ResourceObjectld	int		X	The unique ID of the associated resource.
Roleld	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the role.
RoleName	string restricted to maxLength(100)	X	X	The name of the role. The role name uniquely identifies the role.
RoleObjectld	int		X	The unique ID of the associated role.

## ResourceTeam Service

### Operations:

- CreateResourceTeams Operation** (on page 886)
- ReadResourceTeams Operation** (on page 886)
- UpdateResourceTeams Operation** (on page 887)
- DeleteResourceTeams Operation** (on page 887)
- GetFieldLengthResourceTeam Operation** (on page 887)
- AddResources Operation** (on page 888)
- GetResourceObjectlds Operation** (on page 888)
- RemoveResources Operation** (on page 888)
- ContainsResource Operation** (on page 889)

### WSDL: ResourceTeam.wsdl

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceTeam/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/ResourceTeamService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/ResourceTeamService?wsdl>

**Java Client Stub Class:**

com.primavera.ws.p6.resourceteam.ResourceTeamService

**Description:**

A resource team consists of resources grouped together in some way that is meaningful to you.

### CreateResourceTeams Operation

Description: Creates multiple ResourceTeam objects in the database. You can create up to 1000 ResourceTeam objects with a single call.

**Service:** *ResourceTeam Service (on page 885)*

Style: Document/literal wrapped

Input:

Message: CreateResourceTeams

Elements: ResourceTeam elements that contain **ResourceTeam Fields** (on page 889) fields

Required fields: You must supply the Name field.

Output:

Message: CreateResourceTeamsResponse

Output: Zero to many ObjectId elements

### ReadResourceTeams Operation

Description: Reads ResourceTeam objects from the database.

**Service:** *ResourceTeam Service (on page 885)*

Style: Document/literal wrapped

Input:

Message: ReadResourceTeams

Elements: One to many field names from the **ResourceTeam Fields** (on page 889) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceTeamsResponse

Output: Zero to many ResourceTeam elements that contain ResourceTeam fields.

### UpdateResourceTeams Operation

Description: Updates multiple ResourceTeam objects in the database. You can update up to 1000 ResourceTeam objects with a single call.

**Service:** *ResourceTeam Service (on page 885)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceTeams

Elements: ResourceTeam elements that contain **ResourceTeam Fields** (on page 889) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateResourceTeamsResponse

Output: boolean

### DeleteResourceTeams Operation

Description: Deletes multiple ResourceTeam objects in the database. You can delete up to 1000 ResourceTeam objects with a single call.

**Service:** *ResourceTeam Service (on page 885)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceTeams

Elements: One to many ObjectId elements

Output:

Message: DeleteResourceTeamsResponse

Output: boolean

### GetFieldLengthResourceTeam Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceTeam Service (on page 885)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceTeam

Elements: FieldLength

Output:

Message: GetFieldLengthResourceTeamResponse  
Elements: One to many FieldLengthResourceTeams.

### AddResources Operation

Description: Adds resources to resource teams.

**Service:** *ResourceTeam Service (on page 885)*

Style: Document/literal wrapped

Input:

Message: AddResources

Elements:

- ▶ ObjectIds
- ▶ ResourceObjectIds

Output:

Message: AddResourcesResponse

Element: Success

### GetResourceObjectIds Operation

Description: Gets an array of unique resource IDs that are contained in resource teams.

**Service:** *ResourceTeam Service (on page 885)*

Style: Document/literal wrapped

Input:

Message: GetResourceObjectIds

Element: ObjectId

Output:

Message: GetResourceObjectIdsResponse

Element: One to many ResourceObjectIds.

### RemoveResources Operation

Description: Removes resources from a resource team.

**Service:** *ResourceTeam Service (on page 885)*

Style: Document/literal wrapped

Input:

Message: RemoveResources

Elements:



- ▶ ObjectId
- ▶ ResourceObjectIds

Output:

Message: RemoveResourcesResponse"

Element: Success

### ContainsResource Operation

Description: Returns a boolean for whether or not a resource team contains a specified resource.

**Service:** *ResourceTeam Service (on page 885)*

Style: Document/literal wrapped

Input:

Message: ContainsResource

Elements:

- ▶ ObjectId
- ▶ ResourceObjectId

Output:

Message: ContainsResourceResponse

Element: Success

### ResourceTeam Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this resource team was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this resource team.
Description	string restricted to maxLength(255)		X	The description of the resource team.
LastUpdate Date	dateTime	X	X	The date this resource team was last updated.

LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this resource team.
MemberResource	MemberResourceType See MemberResourceType table below.			
Name	string restricted to maxLength(40)		X	The name of the resource team.
ObjectId	int		X	The unique ID generated by the system.
UserName	string restricted to maxLength(255)	X	X	The user's login name.
UserObjectId	int		X	The unique ID of the associated user.

**MemberResourceType Table**

Field	Type
Id	string restricted to maxLength(20)
Name	string restricted to maxLength(100)

ObjectId	int
----------	-----

## RoleRate Service

### Operations:

- CreateRoleRates Operation** (on page 891)
- ReadRoleRates Operation** (on page 892)
- UpdateRoleRates Operation** (on page 892)
- GetFieldLengthRoleRate Operation** (on page 893)

### WSDL: RoleRate.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RoleRate/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/RoleRateService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/RoleRateService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.rolerate.RoleRateService`

### Description:

Role rates enable you to select a predefined price per unit for cost calculating when assigning the role to an activity. Roles are project personnel job titles or skills, such as mechanical engineer, inspector, or carpenter. They represent a type of resource with a certain level of proficiency rather than a specific individual. As resources, now roles can have different rates assigned to provide more flexibility for cost calculation. See also `RateType`, `RateSource`, and `RateSourcePreference` for more details on how rates can be used in cost calculation.

## CreateRoleRates Operation

Description: Creates multiple RoleRate objects in the database. You can create up to 1000 RoleRate objects with a single call.

**Service:** *RoleRate Service* (on page 891)

Style: Document/literal wrapped

Input:

Message: CreateRoleRates

Elements: RoleRate elements that contain **RoleRate Fields** (on page 893) fields

Required fields: The following fields are required when creating the RoleRate object:

- ▶ RoleObjectId

Output:

Message: CreateRoleRatesResponse

Output: Zero to many ObjectId elements

## ReadRoleRates Operation

Description: Reads RoleRate objects from the database.

**Service:** *RoleRate Service (on page 891)*

Style: Document/literal wrapped

Input:

Message: ReadRoleRates

Elements: One to many field names from the **RoleRate Fields** (on page 893) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRoleRatesResponse

Output: Zero to many RoleRate elements that contain RoleRate fields.

## UpdateRoleRates Operation

Description: Updates multiple RoleRate objects in the database. You can update up to 1000 RoleRate objects with a single call.

**Service:** *RoleRate Service (on page 891)*

Style: Document/literal wrapped

Input:

Message: UpdateRoleRates

Elements: RoleRate elements that contain **RoleRate Fields** (on page 893) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRoleRatesResponse

Output: boolean

## DeleteRoleRates Operation

Description: Deletes multiple RoleRate objects in the database. You can delete up to 1000 RoleRate objects with a single call.

**Service:** *RoleRate Service (on page 891)*

Style: Document/literal wrapped

Input:

Message: DeleteRoleRates

Elements: One to many ObjectId DeleteWithReplacements

Output:

Message: DeleteRolesRatesResponse

Output: boolean

## GetFieldLengthRoleRate Operation

Description: Returns length of variable character fields for a BO.

**Service:** *RoleRate Service (on page 891)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRoleRate

Elements: FieldLength

Output:

Message: GetFieldLengthRoleRateResponse

Elements: One to many FieldLengthRoleRates.

## RoleRate Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this role rate was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this role rate.
EffectiveDate	dateTime		X	The effective date for the role price and maximum

				units per time.
LastUpdate Date	dateTime	X	X	The date this role rate was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this role rate.
MaxUnitsPerTime	double restricted to minInclusive(0.0)		X	The maximum work units per time this role can perform on all their assigned activities.
ObjectId	int		X	The unique ID generated by the system.
PricePerUnit	double restricted to minInclusive(0.0) maxInclusive(9.999999999999999E12)		X	The non-overtime price per time for the role. This price is used to compute costs for any activities the role is assigned to. In general, cost = units * price per time.
PricePerUnit2	double restricted to minInclusive(0.0) maxInclusive(9.999999999999999E12)		X	The non-overtime price per time for the role. This price is used to compute costs for any activities the role is assigned to. In general, cost = units * price per time.
PricePerUnit3	double restricted to minInclusive(0.0) maxInclusive(9.999999999999999E12)		X	The non-overtime price per time for the role. This price is used to compute costs for any activities the role is assigned to. In general,

				cost = units * price per time.
PricePerUnit4	double restricted to minInclusive(0.0) maxInclusive(9.999999999999999E12)		X	The non-overtime price per time for the role. This price is used to compute costs for any activities the role is assigned to. In general, cost = units * price per time.
PricePerUnit5	double restricted to minInclusive(0.0) maxInclusive(9.999999999999999E12)		X	The non-overtime price per time for the role. This price is used to compute costs for any activities the role is assigned to. In general, cost = units * price per time.
RoleId	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the role.
RoleName	string restricted to maxLength(100)	X	X	The name of the role. The role name uniquely identifies the role.
RoleId	int		X	The unique ID of the associated role.

## Role Service

### Operations:

**CreateRoles Operation** (on page 896)

**ReadRoles Operation** (on page 897)

**UpdateRoles Operation** (on page 897)

**DeleteRoles Operation** (on page 897)

**GetFieldLengthRole Operation** (on page 898)

***ReadRolePath Operation*** (on page 898)

**WSDL: Role.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Role/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RoleService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/RoleService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.role.RoleService`

**Description:**

Roles are project personnel job titles or skills, such as mechanical engineer, inspector, or carpenter. They represent a type of resource with a certain level of proficiency rather than a specific individual. Roles can also be assigned to specific resources to further identify that resource's skills. For example, a resource may have a role of an engineer and manager.

You can create a set of roles to assign to resources and activities in all projects in the enterprise. You can establish an unlimited number of roles and organize them in a hierarchy for easier management and assignment. The set of roles you assign to an activity defines the activity's skill requirements.

You can temporarily assign roles during the planning stages of the project to see how certain resources affect the schedule. Once you finalize your plans, you can replace the roles with resources that fulfill the role skill levels. Five proficiency levels can be assigned to roles: Master, Expert, Skilled, Proficient and Inexperienced.

Roles are hierarchical objects.

## CreateRoles Operation

Description: Creates multiple Role objects in the database. You can create up to 1000 Role objects with a single call.

**Service: *Role Service*** (on page 895)

Style: Document/literal wrapped

Input:

Message: CreateRoles

Elements: Role elements that contain ***Role Fields*** (on page 899) fields

Required fields:

- ▶ Id
- ▶ Name

Output:



Message: CreateRolesResponse  
Output: Zero to many ObjectId elements

### ReadRoles Operation

Description: Reads Role objects from the database.

**Service:** *Role Service (on page 895)*

Style: Document/literal wrapped

Input:

Message: ReadRoles

Elements: One to many field names from the **Role Fields** (on page 899) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRolesResponse

Output: Zero to many Role elements that contain Role fields.

### UpdateRoles Operation

Description: Updates multiple Role objects in the database. You can update up to 1000 Role objects with a single call.

**Service:** *Role Service (on page 895)*

Style: Document/literal wrapped

Input:

Message: UpdateRoles

Elements: Role elements that contain **Role Fields** (on page 899) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRolesResponse

Output: boolean

### DeleteRoles Operation

Description: Deletes multiple Role objects in the database. You can delete up to 1000 Role objects with a single call.

**Service: Role Service (on page 895)**

Style: Document/literal wrapped

Input:

Message: DeleteRoles

Elements: One to many ObjectId DeleteWithReplacements

Output:

Message: DeleteRolesResponse

Output: boolean

### GetFieldLengthRole Operation

Description: Returns length of variable character fields for a BO.

**Service: Role Service (on page 895)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRole

Elements: FieldLength

Output:

Message: GetFieldLengthRoleResponse

Elements: One to many FieldLengthRoleRates.

### ReadRolePath Operation

Description: Reads Role objects from the database.

**Service: Role Service (on page 895)**

Style: Document/literal wrapped

Input:

Message: ReadRolePath

Elements:

- ▶ One to many ObjectId elements
- ▶ One to many field names from the **Role Fields** (on page 899) field list.

Output:

Message: ReadRolePathResponse

Output: Zero to many Role elements that contain Role fields.

## Role Fields

Field	Type	Read Only	Filterable Orderable	Description
CalculateCostFromUnits	boolean		X	The option that indicates whether costs and quantities are linked, and whether quantities should be updated when costs are updated.
CreateDate	dateTime	X	X	The date this role was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this role.
Id	string restricted to maxLength(40)		X	The short code that uniquely identifies the role.
LastUpdateDate	dateTime	X	X	The date this role was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this role.
Name	string restricted to maxLength(100)		X	The name of the role. The role name uniquely identifies the role.
ObjectId	int		X	The unique ID generated by the system.
ParentObjectId	int		X	The unique ID of the parent role of this role in the hierarchy.

Responsibilities	string			The responsibilities for the role.
SequenceNumber	int		X	The sequence number for sorting.

## Shift Service

### Operations:

- CreateShifts Operation** (on page 901)
- ReadShifts Operation** (on page 901)
- UpdateShifts Operation** (on page 902)
- DeleteShifts Operation** (on page 902)
- GetFieldLengthShift Operation** (on page 902)
- AddShiftPeriod Operation** (on page 903)
- RemoveShiftPeriod Operation** (on page 903)
- RemoveAllShiftPeriods Operation** (on page 903)
- GetShiftPeriodDurations Operation** (on page 904)

### WSDL: Shift.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Shift/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/ShiftService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/ShiftService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.shift.ShiftService`

### Description:

Shifts are used to define shift calendars for resources. A shift is comprised of one or more shift periods. The total duration of all shift periods in a shift always adds up to 24 hours, with one hour being the minimum shift period.

Shift hours are considered when calculating units and prices during leveling. The resource calendar is used to determine when the resource can work; the limits for that period are determined from the shift definition for that resource. The minimum resource availability for every shift must satisfy the minimum demand for the resource so that the resource can be leveled properly. Limits defined outside the boundaries of the shift definition are ignored. Since shifts are defined at the resource level, all projects are leveled using that resource according to the shift definition.

### CreateShifts Operation

Description: Creates multiple Shift objects in the database. You can create up to 1000 Shift objects with a single call.

**Service:** *Shift Service* (on page 900)

Style: Document/literal wrapped

Input:

Message: CreateShifts

Elements: Shift elements that contain **Shift Fields** (on page 904) fields

Required fields: You must supply the Name field.

Output:

Message: CreateShiftsResponse

Output: Zero to many ObjectId elements

### ReadShifts Operation

Description: Reads Shift objects from the database.

**Service:** *Shift Service* (on page 900)

Style: Document/literal wrapped

Input:

Message: ReadShifts

Elements: One to many field names from the **Shift Fields** (on page 904) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadShiftsResponse

Output: Zero to many Shift elements that contain Shift fields.

### DeleteShifts Operation

Description: Deletes multiple Shift objects in the database. You can delete up to 1000 Shift objects with a single call.

**Service:** *Shift Service (on page 900)*

Style: Document/literal wrapped

Input:

Message: DeleteShifts

Elements: One to many ObjectId elements

Output:

Message: DeleteShiftsResponse

Output: boolean

### GetFieldLengthShift Operation

Description: Returns length of variable character fields for a BO.

**Service:** *Shift Service (on page 900)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthShift

Elements: FieldLength

Output:

Message: GetFieldLengthShiftResponse

Elements: One to many FieldLengthShifts.

### UpdateShifts Operation

Description: Updates multiple Shift objects in the database. You can update up to 1000 Shift objects with a single call.

**Service:** *Shift Service (on page 900)*

Style: Document/literal wrapped

Input:

Message: UpdateShifts

Elements: Shift elements that contain **Shift Fields** (on page 904) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateShiftsResponse

Output: boolean

### AddShiftPeriod Operation

Description: Adds a shift period with the start hour.

**Service:** *Shift Service* (on page 900)

Style: Document/literal wrapped

Input:

Message: AddShiftPeriod

Elements:

- ▶ ShiftObjectId
- ▶ IStartHour

Output:

Message: AddShiftPeriodResponse

Element: Success

### RemoveShiftPeriod Operation

Description: Removes a shift period with the start hour.

**Service:** *Shift Service* (on page 900)

Style: Document/literal wrapped

Input:

Message: RemoveShiftPeriod

Elements:

- ▶ ShiftObjectId
- ▶ IStartHour

Output:

Message: RemoveShiftPeriodResponse

Element: Success

### RemoveAllShiftPeriods Operation

Description: Removes all shift periods.

**Service:** *Shift Service* (on page 900)

Style: Document/literal wrapped

Input:

Message: RemoveAllShiftPeriods

Element: ShiftObjectId

Output:

Message: RemoveAllShiftPeriodsResponse

Element: Success

### GetShiftPeriodDurations Operation

Description: Gets an array of shift period durations.

**Service: Shift Service: Shift Service (on page 900)**

Style: Document/literal wrapped

Input:

Message: GetShiftPeriodDurations

Element: ShiftObjectId

Output:

Message: GetShiftPeriodDurationsResponse

Element: ShiftPeriodDurations.

### Shift Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this shift was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this shift.
LastUpdate Date	dateTime	X	X	The date this shift was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this shift.
Name	string restricted to maxLength(60)		X	The name of the shift.



ObjectId	int		X	The unique ID generated by the system.
ShiftPeriod	ShiftPeriodType See ShiftPeriodType table below.			

### ShiftPeriodType Table

Field	Type
ObjectId	int
StartHour	int

## Risk Services

### ActivityRisk Service

#### Operations:

**CreateActivityRisks Operation** (on page 906)

**ReadActivityRisks Operation** (on page 906)

**DeleteActivityRisks Operation** (on page 907)

**GetFieldLengthActivityRisk Operation** (on page 907)

#### WSDL: ActivityRisk.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ActivityRisk/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ActivityRiskService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ActivityRiskService?wsdl>

**Java Client Stub Class:**

com.primavera.ws.p6.activityrisk.ActivityRiskService

**Description:**

The activity risk object stores the relationship between a single Activity and a single Risk.

Note that this business object has a multi-part object ID; its object ID is a combination of its activity object ID and its risk object ID.

### CreateActivityRisks Operation

Description: Creates multiple ActivityRisk objects in the database. You can create up to 1000 ActivityRisk objects with a single call.

**Service:** *ActivityRisk Service (on page 905)*

Style: Document/literal wrapped

Input:

Message: CreateActivityRisks

Elements: ActivityRisk elements that contain **ActivityRisk Fields** (on page 907) fields

Required fields:

- ▶ RiskObjectId
- ▶ ActivityObjectId

Output:

Message: CreateActivityRisksResponse

Output: Zero to many ObjectId elements

### ReadActivityRisks Operation

Description: Reads ActivityRisk objects from the database.

**Service:** *ActivityRisk Service (on page 905)*

Style: Document/literal wrapped

Input:

Message: ReadActivityRisks

Elements: One to many field names from the **ActivityRisk Fields** (on page 907) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadActivityRisksResponse

Output: Zero to many ActivityRisk elements that contain ActivityRisk fields.

### DeleteActivityRisks Operation

Description: Deletes multiple ActivityRisk objects in the database. You can delete up to 1000 ActivityRisk objects with a single call.

**Service:** *ActivityRisk Service (on page 905)*

Style: Document/literal wrapped

Input:

Message: DeleteActivityRisks

Elements: One to many ObjectId elements

Output:

Message: DeleteActivityRisksResponse

Output: boolean

### GetFieldLengthActivityRisk Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ActivityRisk Service (on page 905)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthActivityRisk

Elements: FieldLength

Output:

Message: GetFieldLengthActivityRiskResponse

Elements: One to many FieldLengthActivityRisks.

### ActivityRisk Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityId	string restricted to maxLength(40)	X	X	The id of an activity impacted by the Risk.
ActivityName	string restricted to maxLength(100)	X	X	The name of an activity impacted by the Risk. The

	20)			activity name does not have to be unique.
ActivityObjectID	int		X	The unique ID of the activity to which the risk is assigned.
CreateDate	dateTime	X	X	The date this activity was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this activity risk.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this activity was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this activity risk.
ProjectID	string	X	X	The short code of the associated project.
ProjectName	string restricted to maxLength(100)	X	X	The name of the associated project.
ProjectObjectID	int	X	X	The unique ID of the associated project.

RiskId	string restricted to maxLength(40)	X	X	The ID of the Risk. Must be unique within a project.
RiskName	string restricted to maxLength(200)	X	X	The name of the Risk. Does not need to be unique.
RiskObject Id	int		X	The unique ID of the associated risk.

## RiskImpact Service

### Operations:

**CreateRiskImpacts Operation** (on page 910)

**ReadRiskImpacts Operation** (on page 910)

**UpdateRiskImpacts Operation** (on page 910)

**DeleteRiskImpacts Operation** (on page 911)

**GetFieldLengthRiskImpact Operation** (on page 911)

### WSDL: RiskImpact.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RiskImpact/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RiskImpactService?wsdl>

<https://<hostname>:<port number>/p6ws/services/RiskImpactService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.riskimpact.RiskImpactService`

### Description:

The risk impact object stores the pre-response qualitative value assigned to a risk for each of the risk thresholds.

Note that this business object has a multi-part object ID; its object ID is a combination of its risk object ID and its risk threshold object ID. The risk threshold object ID is set based on the value used in risk threshold level object ID.

## CreateRiskImpacts Operation

Description: Creates multiple RiskImpact objects in the database. You can create up to 1000 RiskImpact objects with a single call.

**Service:** *RiskImpact Service (on page 909)*

Style: Document/literal wrapped

Input:

Message: CreateRiskImpacts

Elements: RiskImpact elements that contain ***RiskImpact Fields*** (on page 912) fields

Required fields:

- ▶ RiskObjectId
- ▶ RiskThresholdLevelObjectId

Output:

Message: CreateRiskImpactsResponse

Output: Zero to many ObjectId elements

## ReadRiskImpacts Operation

Description: Reads RiskImpact objects from the database.

**Service:** *RiskImpact Service (on page 909)*

Style: Document/literal wrapped

Input:

Message: ReadRiskImpacts

Elements: One to many field names from the ***RiskImpact Fields*** (on page 912) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRiskImpactsResponse

Output: Zero to many RiskImpact elements that contain RiskImpact fields.

## UpdateRiskImpacts Operation

Description: Updates multiple RiskImpact objects in the database. You can update up to 1000 RiskImpact objects with a single call.

**Service:** *RiskImpact Service (on page 909)*

Style: Document/literal wrapped

## Input:

Message: UpdateRiskImpacts

Elements: RiskImpact elements that contain **RiskImpact Fields** (on page 912) fields.

Required fields: The ObjectID must be specified.

## Output:

Message: UpdateRiskImpactsResponse

Output: boolean

**DeleteRiskImpacts Operation**

Description: Deletes multiple RiskImpact objects in the database. You can delete up to 1000 RiskImpact objects with a single call.

**Service:** *RiskImpact Service (on page 909)*

Style: Document/literal wrapped

## Input:

Message: DeleteRiskImpacts

Elements: One to many ObjectID elements

## Output:

Message: DeleteRiskImpactsResponse

Output: boolean

**GetFieldLengthRiskImpact Operation**

Description: Gets an array of project IDs that are contained in the project portfolios.

**Service:** *RiskImpact Service (on page 909)*

Style: Document/literal wrapped

## Input:

Message: GetFieldLengthRiskImpact

Elements: FieldLength

## Output:

Message: GetFieldLengthRiskImpactResponse

Elements: One to many FieldLengthRiskImpacts.

### RiskImpact Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this risk impact was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created the risk impact.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this risk impact was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated the risk impact.
ProjectId	string	X	X	The short name of the associated project.
ProjectName	string	X	X	The name of the associated project.
ProjectObjectId	int	X	X	The unique ID of the associated project.
RiskId	string	X	X	The ID of the Risk. Must be unique within a project.
RiskName	string	X	X	The name of the



				Risk. Does not need to be unique.
RiskObjectld	int		X	The unique ID of the associated risk.
RiskThresholdLevelCode	string	X	X	The 10 character short name for the threshold level. Must be unique.
RiskThresholdLevelName	string	X	X	The 40 character name for the threshold level. Does not need to be unique.
RiskThresholdLevelObjectld	int		X	The unique ID of the associated Risk Threshold.
RiskThresholdName	string	X	X	The name of the associated risk score type.
RiskThresholdObjectld	int	X	X	The unique ID of the associated Risk Threshold Type.

## RiskMatrixScore Service

### Operations:

**CreateRiskMatrixScores Operation** (on page 914)

**ReadRiskMatrixScores Operation** (on page 914)

**UpdateRiskMatrixScores Operation** (on page 915)

**DeleteRiskMatrixScores Operation** (on page 915)

**GetFieldLengthRiskMatrixScore Operation** (on page 915)

### WSDL: RiskMatrixScore.wsdl

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RiskMatrixScore/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/RiskMatrixScoreService?wsdl  
https://<hostname>:<port number>/p6ws/services/RiskMatrixScoreService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.riskmatrixscore.RiskMatrixScoreService

**Description:**

The risk matrix score object stores the score values from the probability and impact diagram (PID) of the risk score matrix.

### CreateRiskMatrixScores Operation

Description: Creates multiple RiskMatrixScore objects in the database. You can create up to 1000 RiskMatrixScore objects with a single call.

**Service:** *RiskMatrixScore Service (on page 913)*

Style: Document/literal wrapped

Input:

Message: CreateRiskMatrixScores

Elements: RiskMatrixScore elements that contain ***RiskMatrixScore Fields*** (on page 916) fields

Required fields:

- ▶ RiskMatrixObjectId
- ▶ ProbabilityThresholdLevel

Output:

Message: CreateRiskMatrixScoresResponse

Output: Zero to many ObjectId elements

### ReadRiskMatrixScores Operation

Description: Reads RiskMatrixScore objects from the database.

**Service:** *RiskMatrixScore Service (on page 913)*

Style: Document/literal wrapped

Input:

Message: ReadRiskMatrixScores

Elements: One to many field names from the ***RiskMatrixScore Fields*** (on page 916) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

**Output:**

Message: ReadRiskMatrixScoresResponse

Output: Zero to many RiskMatrixScore elements that contain RiskMatrixScore fields.

**UpdateRiskMatrixScores Operation**

Description: Updates multiple RiskMatrixScore objects in the database. You can update up to 1000 RiskMatrixScore objects with a single call.

**Service:** *RiskMatrixScore Service (on page 913)*

Style: Document/literal wrapped

**Input:**

Message: UpdateRiskMatrixScores

Elements: RiskMatrixScore elements that contain ***RiskMatrixScore Fields*** (on page 916) fields.

Required fields: The ObjectId must be specified.

**Output:**

Message: UpdateRiskMatrixScoresResponse

Output: boolean

**DeleteRiskMatrixScores Operation**

Description: Deletes multiple RiskMatrixScore objects in the database. You can delete up to 1000 RiskMatrixScore objects with a single call.

**Service:** *RiskMatrixScore Service (on page 913)*

Style: Document/literal wrapped

**Input:**

Message: DeleteRiskMatrixScores

Elements: One to many ObjectId elements

**Output:**

Message: DeleteRiskMatrixScoresResponse

Output: boolean

**GetFieldLengthRiskMatrixScore Operation**

Description: Returns length of variable character fields for a BO.

**Service:** *RiskMatrixScore Service (on page 913)*

Style: Document/literal wrapped

**Input:**

Message: GetFieldLengthRiskMatrixScore

Elements: FieldLength

Output:

Message: GetFieldLengthRiskMatrixScoreResponse

Elements: One to many FieldLengthRiskMatrixScores.

### RiskMatrixScore Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this risk matrix score was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created the risk matrix score.
LastUpdateDate	dateTime	X	X	The date this risk matrix score was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated the risk matrix score.
ObjectId	int		X	The unique ID generated by the system.
ProbabilityThresholdLevel	int restricted to minInclusive(1) maxInclusive(9)		X	The level number of the probability threshold. Valid numbers are 1-9.
RiskMatrixName	string restricted to maxLength(40)	X	X	The name of the Risk Matrix.
RiskMatrixObjectId	int		X	The unique ID of the associated Risk Matrix.

Severity1	int		X	The first severity level of the Risk Matrix Score.
Severity1Label	string restricted to maxLength(40)		X	The label for the first severity level.
Severity2	int		X	The second severity level of the Risk Matrix Score.
Severity2Label	string restricted to maxLength(40)		X	The label for the second severity level.
Severity3	int		X	The third severity level of the Risk Matrix Score.
Severity3Label	string restricted to maxLength(40)		X	The label for the third severity level.
Severity4	int		X	The fourth severity level of the Risk Matrix Score.
Severity4Label	string restricted to maxLength(40)		X	The label for the fourth severity level.
Severity5	int		X	The fifth severity level of the Risk Matrix Score.
Severity5Label	string restricted to maxLength(40)		X	The label for the fifth severity level.
Severity6	int		X	The sixth severity level of the Risk Matrix Score.

Severity6Label	string restricted to maxLength(40)		X	The sixth for the first severity level.
Severity7	int		X	The seventh severity level of the Risk Matrix Score.
Severity7Label	string restricted to maxLength(40)		X	The label for the seventh severity level.
Severity8	int		X	The eighth severity level of the Risk Matrix Score.
Severity8Label	string restricted to maxLength(40)		X	The label for the eighth severity level.
Severity9	int		X	The ninth severity level of the Risk Matrix Score.
Severity9Label	string restricted to maxLength(40)		X	The label for the ninth severity level.

## RiskMatrix Service

### Operations:

- CreateRiskMatrices Operation** (on page 919)
- ReadRiskMatrices Operation** (on page 919)
- UpdateRiskMatrices Operation** (on page 920)
- DeleteRiskMatrices Operation** (on page 920)
- GetFieldLengthRiskMatrix Operation** (on page 920)

### WSDL: RiskMatrix.wsdl

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RiskMatrix/V1>

**Default Transport URLs:**

http://<hostname>:<port number>/p6ws/services/RiskMatrixService?wsdl  
https://<hostname>:<port number>/p6ws/services/RiskMatrixService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.riskmatrix.RiskMatrixService

**Description:**

The risk matrix object contains the name and description of each probability and impact diagram (PID). The Risk Matrix is then used to qualitatively assess each risk and assign a score.

**CreateRiskMatrices Operation**

Description: Creates multiple RiskMatrix objects in the database. You can create up to 1000 RiskMatrix objects with a single call.

**Service:** *RiskMatrix Service* (on page 918)

Style: Document/literal wrapped

**Input:**

Message: CreateRiskMatrices

Elements: RiskMatrix elements that contain ***RiskMatrix Fields*** (on page 921) fields

Required fields: You must supply the Name field.

**Output:**

Message: CreateRiskMatricesResponse

Output: Zero to many ObjectID elements

**ReadRiskMatrices Operation**

Description: Reads RiskMatrix objects from the database.

**Service:** *RiskMatrix Service* (on page 918)

Style: Document/literal wrapped

**Input:**

Message: ReadRiskMatrices

Elements: One to many field names from the ***RiskMatrix Fields*** (on page 921) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

**Output:**

Message: ReadRiskMatricesResponse

Output: Zero to many RiskMatrix elements that contain RiskMatrix fields.

### UpdateRiskMatrices Operation

Description: Updates multiple RiskMatrix objects in the database. You can update up to 1000 RiskMatrix objects with a single call.

**Service:** *RiskMatrix Service (on page 918)*

Style: Document/literal wrapped

Input:

Message: UpdateRiskMatrices

Elements: RiskMatrix elements that contain **RiskMatrix Fields** (on page 921) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRiskMatricesResponse

Output: boolean

### DeleteRiskMatrices Operation

Description: Deletes multiple RiskMatrix objects in the database. You can delete up to 1000 RiskMatrix objects with a single call.

**Service:** *RiskMatrix Service (on page 918)*

Style: Document/literal wrapped

Input:

Message: DeleteRiskMatrices

Elements: One to many ObjectId elements

Output:

Message: DeleteRiskMatricesResponse

Output: boolean

### GetFieldLengthRiskMatrix Operation

Description: Returns length of variable character fields for a BO.

**Service:** *RiskMatrix Service (on page 918)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRiskMatrix

Elements: FieldLength



Output:

Message: GetFieldLengthRiskMatrixResponse

Elements: One to many FieldLengthRiskMatrices.

### RiskMatrix Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this risk matrix was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created the risk matrix.
Description	string restricted to maxLength(4000)		X	The description of the risk matrix
ImpactThresholdLevel	int	X	X	The number of levels for the impact thresholds assigned to the risk scoring matrix. This impact level with the probability level determines the size of the matrix.
LastUpdateDate	dateTime	X	X	The date this risk matrix was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated the risk matrix.
Name	string restricted to maxLength(40)		X	The name of the risk matrix.
ObjectId	int		X	The unique ID generated by the

				system.
ProbabilityThresholdLevel	int	X	X	The number of levels for the probability threshold assigned to the risk matrix. This probability level with the impact level determines the size of the matrix.
RiskScoringMethod	string restricted to 'Highest', 'Average of Impacts', 'Average of Individual Scores'		X	The calculation method used to determine the risk score. Valid values are 'Highest', 'Average of Impacts', 'Average of Individual Scores'.

## RiskMatrixThreshold Service

### Operations:

- CreateRiskMatrixThresholds Operation** (on page 923)
- ReadRiskMatrixThresholds Operation** (on page 923)
- DeleteRiskMatrixThresholds Operation** (on page 924)
- GetFieldLengthRiskMatrixThreshold Operation** (on page 924)

### WSDL: RiskMatrixThreshold.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RiskMatrixThreshold/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/RiskMatrixThresholdService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/RiskMatrixThresholdService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.riskmatrixthreshold.RiskMatrixThresholdService`

**Description:**

The risk matrix threshold object creates a relationship between a RiskThreshold object and a RiskMatrix object. This allows a single RiskThreshold object to be associated with multiple RiskMatrix objects.

Note that this business object has a multi-part object ID; its object ID is a combination of its risk threshold object ID and its risk score matrix object ID.

**CreateRiskMatrixThresholds Operation**

Description: Creates multiple RiskMatrixThreshold objects in the database. You can create up to 1000 RiskMatrixThreshold objects with a single call.

**Service:** *RiskMatrixThreshold Service (on page 922)*

Style: Document/literal wrapped

Input:

Message: CreateRiskMatrixThresholds

Elements: RiskMatrixThreshold elements that contain ***RiskMatrixThreshold Fields*** (on page 924) fields

Required fields:

- ▶ RiskMatrixObjectId
- ▶ RiskThresholdObjectId

Output:

Message: CreateRiskMatrixThresholdsResponse

Output: Zero to many ObjectId elements

**ReadRiskMatrixThresholds Operation**

Description: Reads RiskMatrixThreshold objects from the database.

**Service:** *RiskMatrixThreshold Service (on page 922)*

Style: Document/literal wrapped

Input:

Message: ReadRiskMatrixThresholds

Elements: One to many field names from the ***RiskMatrixThreshold Fields*** (on page 924) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRiskMatrixThresholdsResponse

Output: Zero to many RiskMatrixThreshold elements that contain RiskMatrixThreshold fields.

### DeleteRiskMatrixThresholds Operation

Description: Deletes multiple RiskMatrixThreshold objects in the database. You can delete up to 1000 RiskMatrixThreshold objects with a single call.

**Service:** *RiskMatrixThreshold Service (on page 922)*

Style: Document/literal wrapped

Input:

Message: DeleteRiskMatrixThresholds

Elements: One to many ObjectID elements

Output:

Message: DeleteRiskMatrixThresholdsResponse

Output: boolean

### GetFieldLengthRiskMatrixThreshold Operation

Description: Returns length of variable character fields for a BO.

**Service:** *RiskMatrixThreshold Service (on page 922)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRiskMatrixThreshold

Elements: FieldLength

Output:

Message: GetFieldLengthRiskMatrixThresholdResponse

Elements: One to many FieldLengthRiskMatrixThresholds.

### RiskMatrixThreshold Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this risk matrix score type was created.
CreateUser	string restricted to maxLength(2)	X	X	The name of the user that created the risk matrix

	55)			score type.
LastUpdate Date	dateTime	X	X	The date this risk matrix score type was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated the risk matrix score type.
RiskMatrixName	string restricted to maxLength(40)	X	X	The name of the associated Risk Matrix.
RiskMatrixObjectId	int		X	The unique ID of the associated Risk Matrix.
RiskThresholdName	string restricted to maxLength(40)	X	X	The name of the associated Risk Threshold.
RiskThresholdObjectId	int		X	The unique ID of the associated Risk Threshold.

## RiskResponseAction Service

### Operations:

- CreateRiskResponseActions Operation** (on page 926)
- ReadRiskResponseActions Operation** (on page 926)
- UpdateRiskResponseActions Operation** (on page 927)
- DeleteRiskResponseActions Operation** (on page 927)
- GetFieldLengthRiskResponseAction Operation** (on page 927)

### WSDL: RiskResponseAction.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RiskResponseAction/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RiskResponseActionService?wsdl>

https://<hostname>:<port number>/p6ws/services/RiskResponseActionService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.riskresponseaction.RiskResponseActionService

**Description:**

The risk response action impact object is a post-risk response action qualitative value that is assigned to a risk for each of the risk thresholds.

Note that this business object has a multi-part object ID; its object ID is a combination of its risk response action object ID and its risk threshold object ID. The risk threshold object ID is set based on the value used in risk threshold level object ID.

### CreateRiskResponseActions Operation

Description: Creates multiple RiskResponseAction objects in the database. You can create up to 1000 RiskResponseAction objects with a single call.

**Service:** *RiskResponseAction Service (on page 925)*

Style: Document/literal wrapped

Input:

Message: CreateRiskResponseActions

Elements: RiskResponseAction elements that contain ***RiskResponseAction Fields*** (on page 928) fields

Required fields:

- ▶ RiskResponseActionObjectId
- ▶ RiskThresholdLevelObjectId

Output:

Message: CreateRiskResponseActionsResponse

Output: Zero to many ObjectId elements

### ReadRiskResponseActions Operation

Description: Reads RiskResponseAction objects from the database.

**Service:** *RiskResponseAction Service (on page 925)*

Style: Document/literal wrapped

Input:

Message: ReadRiskResponseActions

Elements: One to many field names from the ***RiskResponseAction Fields*** (on page 928) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRiskResponseActionsResponse

Output: Zero to many RiskResponseAction elements that contain RiskResponseAction fields.

### DeleteRiskResponseActions Operation

Description: Deletes multiple RiskResponseAction objects in the database. You can delete up to 1000 RiskResponseAction objects with a single call.

**Service:** *RiskResponseAction Service (on page 925)*

Style: Document/literal wrapped

Input:

Message: DeleteRiskResponseActions

Elements: One to many ObjectIds elements

Output:

Message: DeleteRiskResponseActionsResponse

Output: boolean

### UpdateRiskResponseActions Operation

Description: Updates multiple RiskResponseAction objects in the database. You can update up to 1000 RiskResponseAction objects with a single call.

**Service:** *RiskResponseAction Service (on page 925)*

Style: Document/literal wrapped

Input:

Message: UpdateRiskResponseActions

Elements: RiskResponseAction elements that contain ***RiskResponseAction Fields*** (on page 928) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRiskResponseActionsResponse

Output: boolean

### GetFieldLengthRiskResponseAction Operation

Description: Returns length of variable character fields for a BO.

**Service:** *RiskResponseAction Service (on page 925)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRiskResponseAction

Elements: FieldLength

Output:

Message: GetFieldLengthRiskResponseActionResponse

Elements: One to many FieldLengthRiskResponseActions.

**RiskResponseAction Fields**

Field	Type	Read Only	Filterable Orderable	Description
ActivityId	string			The id of an activity impacted by the Risk.
ActivityName	string			The name of an activity impacted by the Risk. The activity name does not have to be unique.
ActivityObject Id	int			The unique ID of the associated activity.
ActualCost	double			The actual cost.
CreateDate	dateTime	X	X	The date this risk response action impact was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created the risk response action impact.
FinishDate	dateTime			The finish date of the risk response action. If an



				activity is assigned, the risk response action uses the activity finish date.
Id	string restricted to maxLength(40)			The unique Id of the risk response action.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this risk response action impact was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated the risk response action impact.
Name	string restricted to maxLength(200)			The name of the risk response action.
ObjectId	int			The unique ID of the associated risk.
PlannedCost	double			The planned cost.
PlannedFinishDate	dateTime			The planned finish date.

PlannedStart Date	dateTime			The planned start date.
ProjectId	string	X	X	The short name of the associated project.
ProjectName	string	X	X	The name of the associated project.
ProjectObject Id	int	X	X	The unique ID of the associated project.
RemainingCost	double			The remaining cost associated with the risk response action.
ResourceId	string restricted to maxLength(20)			The ID of the resource who owns the risk response action. The owner of the risk response action is responsible for resolving the risk response action.
ResourceName	string restricted to maxLength(100)			The name of the resource who owns the risk response action. The owner of the risk response action is responsible for resolving the risk response action.
ResourceObject Id	int			The unique ID of the associated resource.
RiskId	string		X	The ID of the Risk.

	restricted to maxLength(40)			Must be unique within a project.
RiskObjectId	int			The unique ID of the associated risk.
RiskResponsePlanId	string			The ID of the risk response plan. This must be unique within the project.
RiskResponsePlanName	string			The name of the risk response plan. This does not need to be unique within the project.
RiskResponsePlanObjectId	int			The unique ID of the associated risk response plan.
Score	int			The risk score from the numeric PID after the response action has been completed.
ScoreColor	string restricted to pattern '#[A-Fa-f0-9]{6}'			The color of the tolerance threshold for the score value.
ScoreText	string restricted to maxLength(40)			The risk score from the alphanumeric PID after the response action has been completed.
StartDate	dateTime			The start date of the risk response

				action. If an activity is assigned, the risk response action uses the activity start date.
Status	string restricted to 'Proposed' 'Sanctioned' 'Rejected' 'In Progress' 'Complete'			The status of the risk response action. Valid values are 'Proposed', 'Sanctioned', 'Rejected', 'InProgress', and 'Complete'.

## RiskResponseActionImpact Service

### Operations:

***CreateRiskResponseActionImpacts Operation*** (on page 933)

***ReadRiskResponseActionImpacts Operation*** (on page 933)

***UpdateRiskResponseActionImpacts Operation*** (on page 933)

***DeleteRiskResponseActionImpacts Operation*** (on page 934)

***GetFieldLengthRiskResponseActionImpact Operation*** (on page 934)

### WSDL: RiskResponseActionImpact.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RiskResponseActionImpact/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RiskResponseActionImpactService?wsdl>

<https://<hostname>:<port number>/p6ws/services/RiskResponseActionImpactService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.riskresponseactionimpact.RiskResponseActionImpactService`

### Description:

The risk response action object contains the detailed steps that need to occur to complete the risk response plan. Multiple actions can be associated with one response plan and each action can be linked to an activity in the project.

## CreateRiskResponseActionImpacts Operation

Description: Creates multiple RiskResponseActionImpact objects in the database. You can create up to 1000 RiskResponseActionImpact objects with a single call.

**Service:** *RiskResponseActionImpact Service (on page 932)*

Style: Document/literal wrapped

Input:

Message: CreateRiskResponseActionImpacts

Elements: RiskResponseActionImpact elements that contain ***RiskResponseActionImpact Fields*** (on page 935) fields

Required fields:

- ▶ RiskResponseActionObjectId
- ▶ RiskThresholdLevelObjectId

Output:

Message: CreateRiskResponseActionImpactsResponse

Output: Zero to many ObjectId elements

## ReadRiskResponseActionImpacts Operation

Description: Reads RiskResponseActionImpact objects from the database.

**Service:** *RiskResponseActionImpact Service (on page 932)*

Style: Document/literal wrapped

Input:

Message: ReadRiskResponseActionImpacts

Elements: One to many field names from the ***RiskResponseActionImpact Fields*** (on page 935) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRiskResponseActionImpactsResponse

Output: Zero to many RiskResponseActionImpact elements that contain RiskResponseActionImpact fields.

## UpdateRiskResponseActionImpacts Operation

Description: Updates multiple RiskResponseActionImpact objects in the database. You can update up to 1000 RiskResponseActionImpact objects with a single call.

**Service:** *RiskResponseActionImpact Service (on page 932)*

Style: Document/literal wrapped

Input:

Message: UpdateRiskResponseActionImpacts

Elements: RiskResponseActionImpact elements that contain ***RiskResponseActionImpact Fields*** (on page 935) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRiskResponseActionImpactsResponse

Output: boolean

### DeleteRiskResponseActionImpacts Operation

Description: Deletes multiple RiskResponseActionImpact objects in the database. You can delete up to 1000 RiskResponseActionImpact objects with a single call.

**Service:** *RiskResponseActionImpact Service (on page 932)*

Style: Document/literal wrapped

Input:

Message: DeleteRiskResponseActionImpacts

Elements: One to many ObjectId elements

Output:

Message: DeleteRiskResponseActionImpactsResponse

Output: boolean

### GetFieldLengthRiskResponseActionImpact Operation

Description: Returns length of variable character fields for a BO.

**Service:** *RiskResponseActionImpact Service (on page 932)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRiskResponseActionImpact

Elements: FieldLength

Output:

Message: GetFieldLengthRiskResponseActionImpactResponse

Elements: One to many FieldLengthRiskResponseActionImpacts.

### RiskResponseActionImpact Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this risk response action was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created the risk response action.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this risk response action was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated the risk response action.
ProjectId	string	X	X	The short name of the associated project.
ProjectName	string	X	X	The name of the associated project.
ProjectObjectId	int	X	X	The unique ID of the associated project.
RiskId	string restricted to		X	The unique identifier of the risk

	maxLength(40)			or risks assigned to this activity.
RiskObjectId	int			The unique ID generated by the system.
RiskResponseActionId	string			The ID of the RiskResponseAction.
RiskResponseActionName	string			The name of the RiskResponseAction.
RiskResponseActionObjectId	int			The unique ID of the RiskResponseAction.
RiskThresholdLevelCode	string			The 10 character short name for the threshold level. Must be unique.
RiskThresholdLevelName	string			The 40 character name for the threshold level. Does not need to be unique.
RiskThresholdLevelObjectId	int			The unique ID of the associated Risk Threshold Level.
RiskThresholdName	string			The name of the associated risk score type.
RiskThresholdObjectId	int			The unique ID of the associated Risk Threshold.



## RiskResponsePlan Service

### Operations:

- CreateRiskResponsePlans Operation** (on page 937)
- ReadRiskResponsePlans Operation** (on page 938)
- UpdateRiskResponsePlans Operation** (on page 938)
- DeleteRiskResponsePlans Operation** (on page 938)
- GetFieldLengthRiskResponsePlan Operation** (on page 939)

### WSDL: RiskResponsePlan.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RiskResponsePlan/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/RiskResponsePlanService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/RiskResponsePlanService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.riskresponseplan.RiskResponsePlanService`

### Description:

The risk response plan object communicates how the project team plans to address the identified risk. A risk that is categorized as a threat has four types of response plans: accept, avoid, reduce, and transfer. A risk that is an opportunity has four different types of response plans: enhance, exploit, facilitate, and reject. The response plan can be comprised of multiple detailed actions or steps.

## CreateRiskResponsePlans Operation

Description: Creates multiple RiskResponsePlan objects in the database. You can create up to 1000 RiskResponsePlan objects with a single call.

**Service:** *RiskResponsePlan Service* (on page 937)

Style: Document/literal wrapped

Input:

Message: CreateRiskResponsePlans

Elements: RiskResponsePlan elements that contain **RiskResponsePlan Fields** (on page 939) fields

Required fields:

- ▶ RiskObjectId
- ▶ Id

Output:

Message: CreateRiskResponsePlansResponse

Output: Zero to many ObjectID elements

### ReadRiskResponsePlans Operation

Description: Reads RiskResponsePlan objects from the database.

**Service:** *RiskResponsePlan Service (on page 937)*

Style: Document/literal wrapped

Input:

Message: ReadRiskResponsePlans

Elements: One to many field names from the ***RiskResponsePlan Fields*** (on page 939) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRiskResponsePlansResponse

Output: Zero to many RiskResponsePlan elements that contain RiskResponsePlan fields.

### UpdateRiskResponsePlans Operation

Description: Updates multiple RiskResponsePlan objects in the database. You can update up to 1000 RiskResponsePlan objects with a single call.

**Service:** *RiskResponsePlan Service (on page 937)*

Style: Document/literal wrapped

Input:

Message: UpdateRiskResponsePlans

Elements: RiskResponsePlan elements that contain ***RiskResponsePlan Fields*** (on page 939) fields.

Required fields: The ObjectID must be specified.

Output:

Message: UpdateRiskResponsePlansResponse

Output: boolean

### DeleteRiskResponsePlans Operation

Description: Deletes multiple RiskResponsePlan objects in the database. You can delete up to 1000 RiskResponsePlan objects with a single call.

**Service: RiskResponsePlan Service (on page 937)**

Style: Document/literal wrapped

Input:

Message: DeleteRiskResponsePlans

Elements: One to many ObjectID elements

Output:

Message: DeleteRiskResponsePlansResponse

Output: boolean

**GetFieldLengthRiskResponsePlan Operation**

Description: Returns length of variable character fields for a BO.

**Service: RiskResponsePlan Service (on page 937)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRiskResponsePlan

Elements: FieldLength

Output:

Message: GetFieldLengthRiskResponsePlanResponse

Elements: One to many FieldLengthRiskResponsePlans.

**RiskResponsePlan Fields**

Field	Type	Read Only	Filterable Orderable	Description
ActualCost	double	X		The actual cost.
CreateDate	dateTime	X	X	The date this risk response plan was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created the risk response plan.
FinishDate	dateTime	X		The finish date of the risk response action. If an activity is assigned, the

				risk response action uses the activity finish date.
Id	string restricted to maxLength(40)		X	The ID of the risk response plan. This must be unique within the assigned risk.
IsActive	boolean		X	The indication of whether the response plan is currently active for the associated risk. Only one response plan can be active at a given time for a risk.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdate Date	dateTime	X	X	The date this risk response plan was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated the risk response plan.
Name	string restricted to maxLength(200)		X	The name of the risk response plan.
ObjectId	int		X	The unique ID generated by the system.
PlannedCos	double	X		The planned cost.

t				
PlannedFinishDate	dateTime	X		The planned finish date.
PlannedStartDate	dateTime	X		The planned start date.
ProjectId	string	X	X	The short name of the associated project.
ProjectName	string	X	X	The name of the associated project.
ProjectObjectId	int	X	X	The unique ID of the associated project.
RemainingCost	double	X		The remaining cost associated with the risk response action.
ResponseType	string restricted to 'Avoid' 'Transfer' 'Reduce' 'Accept' 'Exploit' 'Facilitate' 'Enhance' 'Reject'		X	The risk response plan type. If the risk is a threat, the valid types are 'Avoid', 'Transfer', 'Reduce', and 'Accept'. If the risk is a opportunity, the valid types are 'Exploit', 'Facilitate', 'Enhance', and 'Reject'.
RiskId	string	X	X	The ID of the risk.
RiskName	string	X	X	The name of the risk.
RiskObjectId	int		X	The unique ID of the associated risk.

Score	int	X		The risk score from the numeric PID after all response actions of the response plan have been completed. The post response plan score is set from the response action with the latest finish date and the lowest score when more than one response action has the same date.
ScoreColor	string restricted to pattern '#[A-Fa-f0-9]{6}'	X		The color of the tolerance threshold for the score value.
ScoreText	string restricted to maxLength(40)	X		The risk score from the alphanumeric PID after all response actions of the response plan have been completed. The post response plan score is set from the response action with the latest finish date and the lowest score when more than one response action has the same date.
StartDate	dateTime	X		The start date of the risk response action. If an activity is assigned, the risk response action uses the

				activity start date.
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## Risk Service

### Operations:

- CreateRisks Operation** (on page 943)
- ReadRisks Operation** (on page 944)
- UpdateRisks Operation** (on page 944)
- DeleteRisks Operation** (on page 945)
- GetFieldLengthRisk Operation** (on page 945)

### WSDL: Risk.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Risk/V2>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RiskService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/RiskService?wsdl>

### Java Client Stub Class:

com.primavera.ws.p6.risk.RiskService

### Description:

The risk object represents a probabilistic event or condition which if it occurs has an impact (e.g. schedule, cost, quality, safety) on the project. Risks with negative impacts are threats; risks with positive impacts on the project are opportunities.

This business object supports user defined fields (UDFs). To assign UDFs to an activity expense, use the UDFValue service.

## CreateRisks Operation

Description: Creates multiple Risk objects in the database. You can create up to 1000 Risk objects with a single call.

### Service: Risk Service (on page 943)

Style: Document/literal wrapped

Input:

Message: CreateRisks

Elements: Risk elements that contain **Risk Fields** (on page 945) fields

Required fields:

- ▶ ProjectObjectId
- ▶ Id

Output:

Message: CreateRisksResponse

Output: Zero to many ObjectId elements

## ReadRisks Operation

Description: Reads Risk objects from the database.

**Service:** *Risk Service (on page 943)*

Style: Document/literal wrapped

Input:

Message: ReadRisks

Elements: One to many field names from the ***Risk Fields*** (on page 945) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRisksResponse

Output: Zero to many Risk elements that contain Risk fields.

## UpdateRisks Operation

Description: Updates multiple Risk objects in the database. You can update up to 1000 Risk objects with a single call.

**Service:** *Risk Service (on page 943)*

Style: Document/literal wrapped

Input:

Message: UpdateRisks

Elements: Risk elements that contain ***Risk Fields*** (on page 945) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRisksResponse

Output: boolean



## DeleteRisks Operation

Description: Deletes multiple Risk objects in the database. You can delete up to 1000 Risk objects with a single call.

**Service:** *Risk Service (on page 943)*

Style: Document/literal wrapped

Input:

Message: DeleteRisks

Elements: One to many ObjectID elements

Output:

Message: DeleteRisksResponse

Output: boolean

## GetFieldLengthRisk Operation

Description: Returns length of variable character fields for a BO.

**Service:** *Risk Service (on page 943)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRisk

Elements: FieldLength

Output:

Message: GetFieldLengthRiskResponse

Elements: One to many FieldLengthRisks.

## Risk Fields

Field	Type	Read Only	Filterable Orderable	Description
Cause	string restricted to maxLength(4000)		X	The description of the cause of the Risk.
CostThreshold ID	int	X		The unique ID of a cost impact risk threshold.

CreateDate	dateTime	X	X	The date this risk was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created the risk.
Description	string restricted to maxLength(4000)		X	The description of the Risk.
Effect	string restricted to maxLength(4000)		X	The description of the risks effect on the project.
Exposure	double	X		The calculated exposure value for the risk.
ExposureFinishDate	dateTime	X		The calculated date the exposure finishes for the risk.
ExposureStartDate	dateTime	X		The calculated date the exposure starts for the risk.
Id	string restricted to maxLength(40)		X	The ID of the Risk. Must be unique within a project.
IdentifiedByResourceId	string restricted to maxLength(20)	X		The short code of the resource that identified the risk.
IdentifiedByResourceName	string restricted to maxLength(100)	X		The name of the resource that identified the risk.
IdentifiedByResourceObjectId	int		X	The unique ID of the resource that identified the risk.

IdentifiedDate	dateTime		X	The date this risk was identified.
ImpactThresholdValues	int	X		The calculated score value of the impact values assigned to the risk.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this risk was last updated.
LastUpdateUser	string	X	X	The name of the user that last updated the risk.
Name	string restricted to maxLength(200)		X	The name of the Risk. Does not need to be unique.
Note	string restricted to maxLength(4000)		X	The comments associated with the Risk.
ObjectId	int		X	The unique ID generated by the system.
ProbabilityThresholdId	int	X		The unique ID of a probability risk threshold.
ProjectId	string	X	X	The short name of the associated project.
ProjectName	string restricted to maxLength(100)	X	X	The name of the associated project.
ProjectObjectI	int		X	The unique ID of the associated project.

d				
ResourceId	string restricted to maxLength(20)	X	X	The ID of the resource who owns the Risk. The owner of the Risk is responsible for resolving the Risk.
ResourceName	string restricted to maxLength(100)	X	X	The name of the resource who owns the Risk. The owner of the Risk is responsible for resolving the Risk.
ResourceObjectId	int		X	The unique ID of the associated resource.
ResponseTotalCost	double			The total estimated cost for the risk. If the risk has an associated response plan, the cost is calculated from the risk response actions for the response plan. Not available if user does not have View Project Costs-Financial privilege.
RiskCategoryName	string restricted to maxLength(40)	X	X	The name of the category to which the Risk is assigned. e.g. Weather, Health, Legal etc. A Risk can only be associated with a single category.
ScheduleThresholdId	int	X		The unique ID of a schedule risk threshold.
Score	int	X		The calculated score value of the impact values assigned to the risk.
ScoreColor	string restricted to pattern '#[A-Fa-f0-9]{6}'	X		The color of the tolerance threshold for the score value.
ScoreText	string restricted to maxLength(40)	X		The calculated score text value of the impact values assigned to the risk.
Status	string restricted to		X	The current status of the Risk. Valid values are 'Proposed', 'Open', 'Rejected',

	'Proposed' 'Open' 'Active' 'Rejected' 'Managed' 'Impacted'			'Managed', and 'Impacted'.
Type	string restricted to 'Threat' 'Opportunity'		X	The type of the risk. Valid values are 'Threat' and 'Opportunity'.

## RiskThresholdLevel Service

### Operations:

- CreateRiskThresholdLevels Operation*** (on page 949)
- ReadRiskThresholdLevels Operation*** (on page 950)
- UpdateRiskThresholdLevels Operation*** (on page 950)
- DeleteRiskThresholdLevels Operation*** (on page 951)
- GetFieldLengthRiskThresholdLevel Operation*** (on page 951)

### WSDL: RiskThresholdLevel.wsdl

Primary Key Field: Objectid

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RiskThresholdLevel/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/RiskThresholdLevelService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/RiskThresholdLevelService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.riskthresholdlevel.RiskThresholdLevelService`

### Description:

The risk threshold level object stores the level information (e.g. Low, Medium, High) for each risk threshold.

## CreateRiskThresholdLevels Operation

Description: Creates multiple RiskThresholdLevel objects in the database. You can create up to 1000 RiskThresholdLevel objects with a single call.

**Service:** *RiskThresholdLevel Service (on page 949)*

Style: Document/literal wrapped

Input:

Message: CreateRiskThresholdLevels

Elements: RiskThresholdLevel elements that contain ***RiskThresholdLevel Fields*** (on page 951) fields

Required fields:

- ▶ RiskThresholdObjectId
- ▶ Code

Output:

Message: CreateRiskThresholdLevelsResponse

Output: Zero to many ObjectId elements

### ReadRiskThresholdLevels Operation

Description: Reads RiskThresholdLevel objects from the database.

**Service:** *RiskThresholdLevel Service (on page 949)*

Style: Document/literal wrapped

Input:

Message: ReadRiskThresholdLevels

Elements: One to many field names from the ***RiskThresholdLevel Fields*** (on page 951) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRiskThresholdLevelsResponse

Output: Zero to many RiskThresholdLevel elements that contain RiskThresholdLevel fields.

### UpdateRiskThresholdLevels Operation

Description: Updates multiple RiskThresholdLevel objects in the database. You can update up to 1000 RiskThresholdLevel objects with a single call.

**Service:** *RiskThresholdLevel Service (on page 949)*

Style: Document/literal wrapped

Input:

Message: UpdateRiskThresholdLevels

Elements: RiskThresholdLevel elements that contain ***RiskThresholdLevel Fields*** (on page 951) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRiskThresholdLevelsResponse

Output: boolean

### DeleteRiskThresholdLevels Operation

Description: Deletes multiple RiskThresholdLevel objects in the database. You can delete up to 1000 RiskThresholdLevel objects with a single call.

**Service:** *RiskThresholdLevel Service* (on page 949)

Style: Document/literal wrapped

Input:

Message: DeleteRiskThresholdLevels

Elements: One to many ObjectId elements

Output:

Message: DeleteRiskThresholdLevelsResponse

Output: boolean

### GetFieldLengthRiskThresholdLevel Operation

Description: Returns length of variable character fields for a BO.

**Service:** *RiskThresholdLevel Service* (on page 949)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRiskThresholdLevel

Elements: FieldLength

Output:

Message: GetFieldLengthRiskThresholdLevelResponse

Elements: One to many FieldLengthRiskThresholdLevels.

### RiskThresholdLevel Fields

Field	Type	Read Only	Filterable Orderable	Description
Code	string restricted to		X	The 10 character code for the

	maxLength(10)			threshold level. Must be unique.
Color	string restricted to pattern '#[A-Fa-f0-9]{6}'		X	The Hex representation for the color e.g. 0xFFFFFF.
CostRange	double		X	The cost range of the threshold level.
CreateDate	dateTime	X	X	The date this threshold level was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created the threshold level.
LastUpdate Date	dateTime	X	X	The date this threshold level was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated the threshold level.
Level	int restricted to minInclusive(0) maxInclusive(9)		X	The valid values are between 0 and 9. Defines a level for the Risk Threshold.
Name	string restricted to maxLength(40)		X	The 40 character name for the threshold level. Does not need to be unique.
ObjectId	int		X	The unique ID generated by the system.
ProbabilityRange	double restricted to		X	The probability range of the



	minInclusive(0.0)			threshold level.
Range	string restricted to maxLength(100)		X	The user defined range.
RiskThresholdName	string restricted to maxLength(40)	X	X	The name of the associated risk score type.
RiskThresholdObjectId	int		X	The unique ID of the associated Risk Threshold.
ScheduleRange	double		X	The schedule range of the threshold level.
ThresholdType	string restricted to "Probability', 'Tolerance', 'Schedule', 'Cost', 'Relative Schedule', 'Relative Cost', 'User Defined'	X	X	The type of Risk Threshold. Valid types are 'Probability', 'Tolerance', 'Schedule', 'Cost', 'Relative Schedule', 'Relative Cost' and 'User Defined'.
ToleranceRange	int		X	The tolerance range of the threshold level.

## RiskThreshold Service

### Operations:

**CreateRiskThresholds Operation** (on page 954)

**ReadRiskThresholds Operation** (on page 954)

**UpdateRiskThresholds Operation** (on page 955)

**DeleteRiskThresholds Operation** (on page 955)

***GetFieldLengthRiskThreshold Operation*** (on page 955)

**WSDL: RiskThreshold.wsdl**

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RiskThreshold/V2>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RiskThresholdService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/RiskThresholdService?wsdl>

**Java Client Stub Class:**

com.primavera.ws.p6.riskthreshold.RiskThresholdService

**Description:**

The risk threshold object contains the name, description, and type of each risk threshold. Risk thresholds provide a mechanism for setting up the criteria that is used to assess the risk.

### CreateRiskThresholds Operation

Description: Creates multiple RiskThreshold objects in the database. You can create up to 1000 RiskThreshold objects with a single call.

**Service:** *RiskThreshold Service* (on page 953)

Style: Document/literal wrapped

Input:

Message: CreateRiskThresholds

Elements: RiskThreshold elements that contain ***RiskThreshold Fields*** (on page 956) fields

Required fields: You must supply the Name field.

Output:

Message: CreateRiskThresholdsResponse

Output: Zero to many ObjectId elements

### ReadRiskThresholds Operation

Description: Reads RiskThreshold objects from the database.

**Service:** *RiskThreshold Service* (on page 953)

Style: Document/literal wrapped

Input:

Message: ReadRiskThresholds

Elements: One to many field names from the ***RiskThreshold Fields*** (on page 956) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRiskThresholdsResponse

Output: Zero to many RiskThreshold elements that contain RiskThreshold fields.

### UpdateRiskThresholds Operation

Description: Updates multiple RiskThreshold objects in the database. You can update up to 1000 RiskThreshold objects with a single call.

**Service:** *RiskThreshold Service* (on page 953)

Style: Document/literal wrapped

Input:

Message: UpdateRiskThresholds

Elements: RiskThreshold elements that contain ***RiskThreshold Fields*** (on page 956) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRiskThresholdsResponse

Output: boolean

### DeleteRiskThresholds Operation

Description: Deletes multiple RiskThreshold objects in the database. You can delete up to 1000 RiskThreshold objects with a single call.

**Service:** *RiskThreshold Service* (on page 953)

Style: Document/literal wrapped

Input:

Message: DeleteRiskThresholds

Elements: One to many ObjectId elements

Output:

Message: DeleteRiskThresholdsResponse

Output: boolean

### GetFieldLengthRiskThreshold Operation

Description: Returns length of variable character fields for a BO.

**Service: RiskThreshold Service (on page 953)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRiskThreshold

Elements: FieldLength

Output:

Message: GetFieldLengthRiskThresholdResponse

Elements: One to many FieldLengthRiskThresholds.

**RiskThreshold Fields**

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this risk score type was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created the risk score type.
LastUpdate Date	dateTime	X	X	The date this risk score type was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated the risk score type.
Level	int	X		The number of Risk Threshold Levels. There are between two and nine.
Name	string restricted to maxLength(40)		X	The name of the risk score type.
ObjectId	int		X	The unique ID generated by the system.

ThresholdType	string restricted to 'Probability' 'Tolerance' 'Schedule' 'Cost' 'Relative Schedule' 'Relative Cost' 'User Defined'		X	The type of Risk Threshold. Valid types are 'Probability', 'Tolerance', 'Schedule', 'Cost', 'Relative Schedule', 'Relative Cost' and 'User Defined'
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## RoleTeam Service

### Operations:

**CreateRoleTeams Operation** (on page 958)

**ReadRoleTeams Operation** (on page 958)

**UpdateRoleTeams Operation** (on page 958)

**DeleteRoleTeams Operation** (on page 959)

**GetFieldLengthRoleTeam Operation** (on page 959)

**AddRoles Operation** (on page 959)

**RemoveRoles Operation** (on page 960)

**ContainsRole Operation** (on page 960)

**GetRoleObjectIds Operation** (on page 961)

### WSDL: RoleTeam.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/RoleTeam/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/RoleTeamService?wsdl>

<https://<hostname>:<port number>/p6ws/services/RoleTeamService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.roleteam.RoleTeamService`

### Description:

A role team consists of roles grouped together in some way that is meaningful to you.

## CreateRoleTeams Operation

Description: Creates multiple RoleTeam objects in the database. You can create up to 1000 RoleTeam objects with a single call.

**Service:** *RoleTeam Service (on page 957)*

Style: Document/literal wrapped

Input:

Message: CreateRoleTeams

Elements: RoleTeam elements that contain **RoleTeam Fields** (on page 961) fields

Required fields: You must supply the Name field.

Output:

Message: CreateRoleTeamsResponse

Output: Zero to many ObjectId elements

## ReadRoleTeams Operation

Description: Reads RoleTeam objects from the database.

**Service:** *RoleTeam Service (on page 957)*

Style: Document/literal wrapped

Input:

Message: ReadRoleTeams

Elements: One to many field names from the **RoleTeam Fields** (on page 961) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadRoleTeamsResponse

Output: Zero to many RoleTeam elements that contain RoleTeam fields.

## UpdateRoleTeams Operation

Description: Updates multiple RoleTeam objects in the database. You can update up to 1000 RoleTeam objects with a single call.

**Service:** *RoleTeam Service (on page 957)*

Style: Document/literal wrapped

Input:

Message: UpdateRoleTeams

Elements: RoleTeam elements that contain **RoleTeam Fields** (on page 961) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateRoleTeamsResponse

Output: boolean

## DeleteRoleTeams Operation

Description: Deletes multiple RoleTeam objects in the database. You can delete up to 1000 RoleTeam objects with a single call.

**Service:** *RoleTeam Service (on page 957)*

Style: Document/literal wrapped

Input:

Message: DeleteRoleTeams

Elements: One to many ObjectId elements

Output:

Message: DeleteRoleTeamsResponse

Output: boolean

## GetFieldLengthRoleTeam Operation

Description: Returns length of variable character fields for a BO.

**Service:** *RoleTeam Service (on page 957)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthRoleTeam

Elements: FieldLength

Output:

Message: GetFieldLengthRoleTeamResponse

Elements: One to many FieldLengthRoleTeams.

## AddRoles Operation

Description: Adds roles to a team.

**Service:** *RoleTeam Service (on page 957)*

Style: Document/literal wrapped

Input:

Message: AddRoles

Elements:

- ▶ ObjectIds
- ▶ RoleObjectIds

Output:

Message: AddRolesResponse

Element: Success

## RemoveRoles Operation

Description: Removes roles from role teams.

**Service:** *RoleTeam Service (on page 957)*

Style: Document/literal wrapped

Input:

Message: RemoveRoles

Elements:

- ▶ ObjectId
- ▶ RoleObjectIds

Output:

Message: RemoveRolesResponse"

Element: Success

## ContainsRole Operation

Description: Returns a boolean for whether or not a role team contains a specified role.

**Service:** *RoleTeam Service (on page 957)*

Style: Document/literal wrapped

Input:

Message: ContainsRole

Elements:

- ▶ ObjectId
- ▶ RoleObjectId

Output:

Message: ContainsRoleResponse

Element: Success



## GetRoleObjectIds Operation

Description: Gets an array of RoleObjectIds that are contained in teams.

**Service:** *RoleTeam Service (on page 957)*

Style: Document/literal wrapped

Input:

Message: GetRoleObjectIds

Element: ObjectId

Output:

Message: GetRoleObjectIdsResponse

Element: One to many RoleObjectIds.

## RoleTeam Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this role team was created.
CreateUser	string	X	X	The name of the user that created this role team.
Description	string restricted to maxLength(255)		X	The description of the role team.
LastUpdate Date	dateTime	X	X	The date this role team was last updated.
LastUpdate User	string	X	X	The name of the user that last updated this role team.
MemberRole	MemberRole Type See MemberRole Type table below			

Name	string restricted to maxLength(40)		X	The name of the role team.
ObjectId	int		X	The unique ID generated by the system.
UserName	string restricted to maxLength(32)	X	X	The user's login name.
UserObjectId	int		X	The unique ID of a specific user who has access to the selected role team.

### MemberRoleType Table

Field	Type
Id	string restricted to maxLength(20)
Name	string restricted to maxLength(100)
ObjectId	int

## Spread Service

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### Operations:

***ReadActivitySpread Operation*** (on page 963)

***ReadEPSSpread Operation*** (on page 977)

***ReadProjectSpread Operation*** (on page 986)

***ReadActivitySpreadZip Operation*** (on page 971)

***ReadActivityOrAssignmentSpreadZip Operation*** (on page 974)

***ReadWBSSpread Operation*** (on page 994)

***ReadProjectResourceSpread Operation*** (on page 1002)

***ReadCBSResourceSpread Operation*** (on page 1009)

***ReadCBSExpenseSpread Operation*** (on page 1013)

***ReadProjectRoleSpread Operation*** (on page 1015)

***ReadWBSExpenseSpread Operation*** (on page 1026)

***ReadWBSResourceSpread Operation*** (on page 1021)

***ReadWBSRoleSpread Operation*** (on page 1028)

***ReadResourceAssignmentSpread Operation*** (on page 1033)

***ReadResourceAssignmentSpreadZip Operation*** (on page 1038)

***UpdateResourceAssignmentSpread Operation*** (on page 1040)

### WSDL: Spread.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Spread/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/SpreadService?wsdl>

<https://<hostname>:<port number>/p6ws/services/SpreadService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.spread.SpreadService`

### Description:

You use the Spread service to read time-phased unit and cost data. This enables you to track resource usage and availability. There are two primary types of spreads: Summarized and Live. Summarized spreads are based on the data calculated during the last time the Summarizer job service ran on the particular EPS or Project being accessed. Summarized spreads include EPS, project, WBS, project resource, and project role spreads. Live spreads do not have a dependency on the Summarizer job service and are always calculated from the current data. Live spreads include activity spreads and resource assignment spreads.

## ReadActivitySpread Operation

Description: Reads the live activity spread data from the specified activities.

**Service:** *Spread Service* (on page 962)

Style: Document/literal wrapped

Input:

Message: ReadActivitySpread

Elements:

Field	Type	Description
ActivityObjectId	int	<p>The unique identifier for the activity.</p> <p>You can specify one or more ActivityObjectIds.</p>
PeriodType	<p>SpreadPeriodType</p> <p>string restricted to Hour Day Week Month Quarter Year FinancialPeriod</p>	<p>Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.</p>
StartDate	dateTime	<p>The start of the time period that you are interested in.</p>
EndDate	dateTime	<p>The end of the time period that you are interested in.</p>
IncludeCumulative	boolean	<p>Set IncludeCumulative to true to read cumulative spread data.</p>
SpreadField	<p>ActivitySpreadFieldType</p> <p>string restricted to ActualCost ActualExpenseCost ActualLaborCost ActualLaborUnits</p>	<p>The fields you want to include in the spread. Specify one to many SpreadField elements.</p>

<p>                     ActualMaterialCost                      ActualNonLaborCost                      ActualNonLaborUnits                      ActualTotalCost                      AtCompletionExpenseCost                      AtCompletionLaborCost                      AtCompletionLaborUnits                      AtCompletionMaterialCost                      AtCompletionNonLaborCost                      AtCompletionNonLaborUnits                      AtCompletionTotalCost                      Baseline1ActualExpenseCost                      Baseline1ActualLaborCost                      Baseline1ActualLaborUnits                      Baseline1ActualMaterialCost                      Baseline1ActualNonLaborCos                      t                      Baseline1ActualNonLaborUnit                      s                      Baseline1ActualTotalCost                      Baseline1PlannedExpenseCo                      st                      Baseline1PlannedLaborCost                      Baseline1PlannedLaborUnits                      Baseline1PlannedMaterialCo                      st                      Baseline1PlannedNonLaborC                      ost                      Baseline1PlannedNonLaborU                      nits                      Baseline1PlannedTotalCost                      BaselineActualExpenseCost                      BaselineActualLaborCost                      BaselineActualLaborUnits                      BaselineActualMaterialCost                      BaselineActualNonLaborCost                      BaselineActualNonLaborUnits                      BaselineActualTotalCost                      BaselinePlannedExpenseCos                      t                      BaselinePlannedLaborCost                      BaselinePlannedLaborUnits                      BaselinePlannedMaterialCost                      BaselinePlannedNonLaborCo                      st                      BaselinePlannedNonLaborUn                      its                      BaselinePlannedTotalCost                      EarnedValueCost                 </p>	
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	EarnedValueLaborUnits EstimateAtCompletionCost EstimateAtCompletionLaborUnits EstimateToCompleteCost EstimateToCompleteLaborUnits PlannedExpenseCost PlannedLaborCost PlannedLaborUnits PlannedMaterialCost PlannedNonLaborCost PlannedNonLaborUnits PlannedTotalCost PlannedValueCost PlannedValueLaborUnits RemainingExpenseCost RemainingLaborCost RemainingLaborUnits RemainingMaterialCost RemainingNonLaborCost RemainingNonLaborUnits RemainingTotalCost RemainingLateExpenseCost RemainingLateLaborCost RemainingLateLaborUnits RemainingLateMaterialCost RemainingLateNonLaborCost RemainingLateNonLaborUnits RemainingLateTotalCost	
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Output:

Message: ReadActivitySpreadResponse

Elements: One to many ActivitySpread elements that contain the following fields:

Field	Type	Description
ActivityId	string	The short ID that uniquely identifies the activity.

ActivityObjectId	int	The unique identifier for the activity.
StartDate	dateTime	The start date of spread data.
EndDate	dateTime	The end date of the spread data.
PeriodType	<p>SpreadPeriodType</p> <p>string restricted to</p> <p>Hour Day Week Month Quarter Year FinancialPeriod</p>	Specifies the spread interval for the Activity.
Period	<p>ActivitySpreadPeriod</p> <p>StartDate EndDate ActualCost ActualExpenseCost ActualLaborCost ActualLaborUnits ActualMaterialCost ActualNonLaborCost ActualNonLaborUnits ActualTotalCost AtCompletionExpenseCost AtCompletionLaborCost AtCompletionLaborUnits AtCompletionMaterialCost AtCompletionNonLaborCost AtCompletionNonLaborUnits AtCompletionTotalCost Baseline1ActualTotalCost</p>	<p>One or more ActivitySpreadPeriods that contain the live activity spread data for the period.</p> <p>Contains StartDate, EndDate, and one or more instances of the following data:</p>

	Baseline1ActualExpenseCost Baseline1ActualMaterialCost Baseline1ActualNonLaborCost Baseline1ActualLaborCost Baseline1ActualNonLaborUnits Baseline1ActualLaborUnits Baseline1PlannedExpenseCost Baseline1PlannedLaborCost Baseline1PlannedLaborUnits Baseline1PlannedMaterialCost Baseline1PlannedNonLaborCost Baseline1PlannedNonLaborUnits Baseline1PlannedTotalCost BaselineActualExpenseCost BaselineActualLaborCost BaselineActualLaborUnits BaselineActualMaterialCost BaselineActualNonLaborCost BaselineActualNonLaborUnits BaselineActualTotalCost BaselinePlannedExpenseCost BaselinePlannedLaborCost BaselinePlannedLaborUnits BaselinePlannedMaterialCost BaselinePlannedNonLaborCost BaselinePlannedNonLaborUnits BaselinePlannedTotalCost EarnedValueCost EarnedValueLaborUnits EstimateAtCompletionCost EstimateAtCompletionLaborUnits EstimateToCompleteCost EstimateToCompleteLaborUnits PlannedExpenseCost PlannedLaborCost PlannedLaborUnits PlannedMaterialCost PlannedNonLaborCost PlannedNonLaborUnits PlannedTotalCost PlannedValueCost PlannedValueLaborUnits RemainingExpenseCost RemainingLaborCost RemainingLaborUnits RemainingMaterialCost RemainingNonLaborCost RemainingNonLaborUnits RemainingTotalCost	
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RemainingLateExpenseCost RemainingLateLaborCost RemainingLateLaborUnits RemainingLateMaterialCost RemainingLateNonLaborCost RemainingLateNonLaborUnits RemainingLateTotalCost CumulativeActualCost CumulativeActualExpenseCost CumulativeActualLaborCost CumulativeActualLaborUnits CumulativeActualMaterialCost CumulativeActualNonLaborCost CumulativeActualNonLaborUnits CumulativeActualTotalCost CumulativeAtCompletionExpenseCost CumulativeAtCompletionLaborCost CumulativeAtCompletionLaborUnits CumulativeAtCompletionMaterialCost CumulativeAtCompletionNonLaborCost CumulativeAtCompletionNonLaborUnits CumulativeAtCompletionTotalCost CumulativeBaseline1ActualTotalCost CumulativeBaseline1ActualExpenseCost CumulativeBaseline1ActualMaterialCost CumulativeBaseline1ActualNonLaborCos t CumulativeBaseline1ActualLaborCost CumulativeBaseline1ActualNonLaborUnit s CumulativeBaseline1ActualLaborUnits CumulativeBaseline1PlannedExpenseCo st CumulativeBaseline1PlannedLaborCost CumulativeBaseline1PlannedLaborUnits CumulativeBaseline1PlannedMaterialCos t CumulativeBaseline1PlannedNonLaborC ost CumulativeBaseline1PlannedNonLaborU nits CumulativeBaseline1PlannedTotalCost CumulativeBaselineActualExpenseCost CumulativeBaselineActualLaborCost CumulativeBaselineActualLaborUnits CumulativeBaselineActualMaterialCost CumulativeBaselineActualNonLaborCost CumulativeBaselineActualNonLaborUnits CumulativeBaselineActualTotalCost	
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	<p>CumulativeBaselinePlannedExpenseCost</p> <p>CumulativeBaselinePlannedLaborCost</p> <p>CumulativeBaselinePlannedLaborUnits</p> <p>CumulativeBaselinePlannedMaterialCost</p> <p>CumulativeBaselinePlannedNonLaborCost</p> <p>CumulativeBaselinePlannedNonLaborUnits</p> <p>CumulativeBaselinePlannedTotalCost</p> <p>CumulativeEarnedValueCost</p> <p>CumulativeEarnedValueLaborUnits</p> <p>CumulativeEstimateAtCompletionCost</p> <p>CumulativeEstimateAtCompletionLaborUnits</p> <p>CumulativeEstimateToCompleteCost</p> <p>CumulativeEstimateToCompleteLaborUnits</p> <p>CumulativePlannedExpenseCost</p> <p>CumulativePlannedLaborCost</p> <p>CumulativePlannedLaborUnits</p> <p>CumulativePlannedMaterialCost</p> <p>CumulativePlannedNonLaborCost</p> <p>CumulativePlannedNonLaborUnits</p> <p>CumulativePlannedTotalCost</p> <p>CumulativePlannedValueCost</p> <p>CumulativePlannedValueLaborUnits</p> <p>CumulativeRemainingExpenseCost</p> <p>CumulativeRemainingLaborCost</p> <p>CumulativeRemainingLaborUnits</p> <p>CumulativeRemainingMaterialCost</p> <p>CumulativeRemainingNonLaborCost</p> <p>CumulativeRemainingNonLaborUnits</p> <p>CumulativeRemainingTotalCost</p> <p>CumulativeRemainingLateExpenseCost</p> <p>CumulativeRemainingLateLaborCost</p> <p>CumulativeRemainingLateLaborUnits</p> <p>CumulativeRemainingLateMaterialCost</p> <p>CumulativeRemainingLateNonLaborCost</p> <p>CumulativeRemainingLateNonLaborUnits</p> <p>CumulativeRemainingLateTotalCost</p>	
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## ReadActivitySpreadZip Operation

Description: Reads the live activity spread data from the specified activities and exports the data to a compressed zip file.

**Service:** *Spread Service* (on page 962)

Style: Document/literal wrapped

Input:

Message: ReadActivitySpreadZip

Elements:

Field	Type	Description
ActivityObjectId	int	The unique identifier for the activity. You can specify one or more ActivityObjectIds.
PeriodType	SpreadPeriodType string restricted to Hour Day Week Month Quarter Year FinancialPeriod	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
StartDate	dateTime	The start of the time period that you are interested in.
EndDate	dateTime	The end of the time period that you are interested in.
IncludeCumulative	boolean	Set IncludeCumulative to true to

		read cumulative spread data.
SpreadField	<p>ActivitySpreadFieldType</p> <p>string restricted to</p> <p>ActualCost ActualExpenseCost ActualLaborCost ActualLaborUnits ActualMaterialCost ActualNonLaborCost ActualNonLaborUnits ActualTotalCost AtCompletionExpenseCost AtCompletionLaborCost AtCompletionLaborUnits AtCompletionMaterialCost AtCompletionNonLaborCost AtCompletionNonLaborUnits AtCompletionTotalCost Baseline1ActualExpenseCost Baseline1ActualLaborCost Baseline1ActualLaborUnits Baseline1ActualMaterialCost Baseline1ActualNonLaborCos t Baseline1ActualNonLaborUnit s Baseline1ActualTotalCost Baseline1PlannedExpenseCo st Baseline1PlannedLaborCost Baseline1PlannedLaborUnits Baseline1PlannedMaterialCo st Baseline1PlannedNonLaborC ost Baseline1PlannedNonLaborU nits Baseline1PlannedTotalCost BaselineActualExpenseCost BaselineActualLaborCost BaselineActualLaborUnits BaselineActualMaterialCost BaselineActualNonLaborCost</p>	<p>The fields you want to include in the spread. Specify one to many SpreadField elements.</p>

<p>BaselineActualNonLaborUnits          BaselineActualTotalCost          BaselinePlannedExpenseCost          BaselinePlannedLaborCost          BaselinePlannedLaborUnits          BaselinePlannedMaterialCost          BaselinePlannedNonLaborCost          BaselinePlannedNonLaborUnits          BaselinePlannedTotalCost          EarnedValueCost          EarnedValueLaborUnits          EstimateAtCompletionCost          EstimateAtCompletionLaborUnits          EstimateToCompleteCost          EstimateToCompleteLaborUnits          PlannedExpenseCost          PlannedLaborCost          PlannedLaborUnits          PlannedMaterialCost          PlannedNonLaborCost          PlannedNonLaborUnits          PlannedTotalCost          PlannedValueCost          PlannedValueLaborUnits          RemainingExpenseCost          RemainingLaborCost          RemainingLaborUnits          RemainingMaterialCost          RemainingNonLaborCost          RemainingNonLaborUnits          RemainingTotalCost          RemainingLateExpenseCost          RemainingLateLaborCost          RemainingLateLaborUnits          RemainingLateMaterialCost          RemainingLateNonLaborCost          RemainingLateNonLaborUnits          RemainingLateTotalCost</p>	
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Output:

Message: ReadActivitySpreadZipResponse

### ReadActivityOrAssignmentSpreadZip Operation

Description: Reads the live activity or assignment spread data from the specified project and exports the data to a compressed zip file.

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: ReadActivityOrAssignmentSpreadZip

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier for the project.
Type	string restricted to ResourceAssignment Activity	The type of data held by the record.
PeriodType	SpreadPeriodType  string restricted to Hour Day Week Month Quarter Year FinancialPeriod	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
StartDate	dateTime	The start of the time period that you are interested in.

EndDate	dateTime	The end of the time period that you are interested in.
IncludeCumulative	boolean	Set IncludeCumulative to true to read cumulative spread data.
ActivitySpreadField	<p>ActivitySpreadFieldType</p> <p>string</p> <p>restricted to</p> <p>ActualCost</p> <p>ActualExpenseCost</p> <p>ActualLaborCost</p> <p>ActualLaborUnits</p> <p>ActualMaterialCost</p> <p>ActualNonLaborCost</p> <p>ActualNonLaborUnits</p> <p>ActualTotalCost</p> <p>AtCompletionExpenseCost</p> <p>AtCompletionLaborCost</p> <p>AtCompletionLaborUnits</p> <p>AtCompletionMaterialCost</p> <p>AtCompletionNonLaborCost</p> <p>AtCompletionNonLaborUnits</p> <p>AtCompletionTotalCost</p> <p>Baseline1ActualExpenseCost</p> <p>Baseline1ActualLaborCost</p> <p>Baseline1ActualLaborUnits</p> <p>Baseline1ActualMaterialCost</p> <p>Baseline1ActualNonLaborCost</p> <p>Baseline1ActualNonLaborUnits</p> <p>Baseline1ActualTotalCost</p> <p>Baseline1PlannedExpenseCost</p> <p>Baseline1PlannedLaborCost</p> <p>Baseline1PlannedLaborUnits</p> <p>Baseline1PlannedMaterialCost</p> <p>Baseline1PlannedNonLaborCost</p> <p>Baseline1PlannedNonLaborUnits</p> <p>Baseline1PlannedTotalCost</p>	The fields you want to include in the spread. Specify one to many ActivitySpreadField elements.

<p>                     BaselineActualExpenseCost                      BaselineActualLaborCost                      BaselineActualLaborUnits                      BaselineActualMaterialCost                      BaselineActualNonLaborCost                      BaselineActualNonLaborUnits                      BaselineActualTotalCost                      BaselinePlannedExpenseCos                      t                      BaselinePlannedLaborCost                      BaselinePlannedLaborUnits                      BaselinePlannedMaterialCost                      BaselinePlannedNonLaborCo                      st                      BaselinePlannedNonLaborUn                      its                      BaselinePlannedTotalCost                      EarnedValueCost                      EarnedValueLaborUnits                      EstimateAtCompletionCost                      EstimateAtCompletionLaborU                      nits                      EstimateToCompleteCost                      EstimateToCompleteLaborUn                      its                      PlannedExpenseCost                      PlannedLaborCost                      PlannedLaborUnits                      PlannedMaterialCost                      PlannedNonLaborCost                      PlannedNonLaborUnits                      PlannedTotalCost                      PlannedValueCost                      PlannedValueLaborUnits                      RemainingExpenseCost                      RemainingLaborCost                      RemainingLaborUnits                      RemainingMaterialCost                      RemainingNonLaborCost                      RemainingNonLaborUnits                      RemainingTotalCost                      RemainingLateExpenseCost                      RemainingLateLaborCost                      RemainingLateLaborUnits                      RemainingLateMaterialCost                      RemainingLateNonLaborCost                      RemainingLateNonLaborUnit                      s                      RemainingLateTotalCost                 </p>	
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<p>ResourceAssignmentSpreadField</p>	<p>ResourceAssignmentSpreadFieldType</p> <p>string</p> <p>restricted to</p> <p>ActualCost</p> <p>ActualOvertimeCost</p> <p>ActualOvertimeUnits</p> <p>ActualRegularCost</p> <p>ActualRegularUnits</p> <p>ActualUnits</p> <p>AtCompletionCost</p> <p>AtCompletionUnits</p> <p>PlannedCost</p> <p>PlannedUnits</p> <p>RemainingCost</p> <p>RemainingLateCost</p> <p>RemainingLateUnits</p> <p>RemainingUnits</p> <p>StaffedRemainingCost</p> <p>StaffedRemainingLateCost</p> <p>StaffedRemainingLateUnits</p> <p>StaffedRemainingUnits</p> <p>UnstaffedRemainingCost</p> <p>UnstaffedRemainingLateCost</p> <p>UnstaffedRemainingLateUnits</p> <p>UnstaffedRemainingUnits</p>	<p>The fields you want to include in the spread. Specify one to many ResourceAssignmentSpreadField elements.</p>
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Output:

Message: ReadActivityOrAssignmentSpreadZipResponse

### ReadEPSSpread Operation

Description: Reads the summarized spread data from the specified EPS objects.

**Service:** *Spread Service* (on page 962)

Style: Document/literal wrapped

Input:

Message: ReadEPSSpread

Elements:

Field	Type	Description
EPSObjectId	int	The unique identifier for the EPS. You can specify one or more EPSObjectIds.
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
StartDate	dateTime	The start of the time period that you are interested in.
EndDate	dateTime	The end of the time period that you are interested in.
IncludeCumulative	boolean	Set IncludeCumulative to true to read cumulative spread data.
SpreadField	SummarizedSpreadFieldType string restricted to	The fields you want to include in the spread. Specify one to many SpreadField elements.

	<p>ActualCost          ActualExpenseCost          ActualLaborCost          ActualLaborUnits          ActualMaterialCost          ActualNonlaborCost          ActualNonlaborUnits          ActualTotalCost          AtCompletionExpenseCost          AtCompletionLaborCost          AtCompletionLaborUnits          AtCompletionMaterialCost          AtCompletionNonlaborCost          AtCompletionNonlaborUnits          AtCompletionTotalCost          BaselinePlannedExpenseCost          BaselinePlannedLaborCost          BaselinePlannedLaborUnits          BaselinePlannedMaterialCost          BaselinePlannedNonlaborCost          BaselinePlannedNonlaborUnits          BaselinePlannedTotalCost          EarnedValueCost          EarnedValueLaborUnits          EstimateAtCompletionCost          EstimateAtCompletionLaborUnits          EstimateToCompleteCost          EstimateToCompleteLaborUnits          PeriodActualCost          PeriodActualExpenseCost          PeriodActualLaborCost          PeriodActualLaborUnits          PeriodActualMaterialCost          PeriodActualNonLaborCost          PeriodActualNonLaborUnits          PeriodAtCompletionExpenseCost          PeriodAtCompletionLaborCost          PeriodAtCompletionLaborUnits          PeriodAtCompletionMaterialCost          PeriodAtCompletionNonLaborCost          PeriodAtCompletionNonLaborUnits</p>	
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	PeriodAtCompletionTotalCost PeriodEarnedValueCost PeriodEarnedValueLaborUnits PeriodEstimateAtCompletionCost PeriodEstimateAtCompletionLaborUnits PeriodPlannedValueCost PeriodPlannedValueLaborUnits PlannedExpenseCost PlannedLaborCost PlannedLaborUnits PlannedMaterialCost PlannedNonlaborCost PlannedNonlaborUnits PlannedTotalCost PlannedValueCost PlannedValueLaborUnits RemainingExpenseCost RemainingLaborCost RemainingLaborUnits RemainingMaterialCost RemainingNonlaborCost RemainingNonlaborUnits RemainingTotalCost RemainingLateExpenseCost RemainingLateLaborCost RemainingLateLaborUnits RemainingLateMaterialCost RemainingLateNonlaborCost RemainingLateNonlaborUnits RemainingLateTotalCost	
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Output:

Message: ReadEPSSpreadResponse

Elements: One to many EPSSpread elements that contain the following fields:

Field	Type	Description
EPSId	string	The short code assigned to each EPS element for

		identification.
EPSObjectId	int	The unique identifier of the EPS
StartDate	dateTime	The start date of spread data.
EndDate	dateTime	The end date of the spread data
PeriodType	SummarizedSpreadPeriodType  string restricted to Week Month Quarter Year FinancialPeriod Day	Specifies the spread interval for the EPS.
Period	SummarizedSpreadPeriod  StartDate EndDate ActualCost ActualExpenseCost ActualLaborCost ActualLaborUnits ActualMaterialCost ActualNonlaborCost ActualNonlaborUnits ActualTotalCost AtCompletionExpenseCost AtCompletionLaborCost AtCompletionLaborUnits AtCompletionMaterialCost AtCompletionNonlaborCost AtCompletionNonlaborUnits AtCompletionTotalCost	One or more SummarizedSpreadP eriods that contain the live activity spread data for the period. Contains the StartDate, EndDate, and one or more instances of the following data:

	BaselinePlannedExpenseCost BaselinePlannedLaborCost BaselinePlannedLaborUnits BaselinePlannedMaterialCost BaselinePlannedNonlaborCost BaselinePlannedNonlaborUnits BaselinePlannedTotalCost EarnedValueCost EarnedValueLaborUnits EstimateAtCompletionCost EstimateAtCompletionLaborUnits EstimateToCompleteCost EstimateToCompleteLaborUnits PlannedExpenseCost PlannedLaborCost PlannedLaborUnits PlannedMaterialCost PlannedNonlaborCost PlannedNonlaborUnits PlannedTotalCost PlannedValueCost PlannedValueLaborUnits RemainingExpenseCost RemainingLaborCost RemainingLaborUnits RemainingMaterialCost RemainingNonlaborCost RemainingNonlaborUnits RemainingTotalCost RemainingLateExpenseCost RemainingLateLaborCost RemainingLateLaborUnits RemainingLateMaterialCost RemainingLateNonlaborCost RemainingLateNonlaborUnits RemainingLateTotalCost PeriodActualCost PeriodActualExpenseCost PeriodActualLaborCost PeriodActualLaborUnits PeriodActualMaterialCost PeriodActualNonLaborCost PeriodActualNonLaborUnits PeriodAtCompletionExpenseCost PeriodAtCompletionLaborCost PeriodAtCompletionLaborUnits PeriodAtCompletionMaterialCos	
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	t PeriodAtCompletionNonLaborC ost PeriodAtCompletionNonLaborU nits PeriodAtCompletionTotalCost PeriodEarnedValueCost PeriodEarnedValueLaborUnits PeriodEstimateAtCompletionCo st PeriodEstimateAtCompletionLa borUnits PeriodPlannedValueCost PeriodPlannedValueLaborUnits CumulativeActualCost CumulativeActualExpenseCost CumulativeActualLaborCost CumulativeActualLaborUnits CumulativeActualMaterialCost CumulativeActualNonlaborCost CumulativeActualNonlaborUnits CumulativeActualTotalCost CumulativeAtCompletionExpens eCost CumulativeAtCompletionLaborC ost CumulativeAtCompletionLaborU nits CumulativeAtCompletionMateria lCost CumulativeAtCompletionNonlab orCost CumulativeAtCompletionNonlab orUnits CumulativeAtCompletionTotalC ost CumulativeBaselinePlannedExp enseCost CumulativeBaselinePlannedLab orCost CumulativeBaselinePlannedLab orUnits CumulativeBaselinePlannedMat erialCost CumulativeBaselinePlannedNon laborCost CumulativeBaselinePlannedNon laborUnits CumulativeBaselinePlannedTot	
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	<p>alCost          CumulativeEarnedValueCost          CumulativeEarnedValueLaborUnits          CumulativeEstimateAtCompletionCost          CumulativeEstimateAtCompletionLaborUnits          CumulativeEstimateToCompleteCost          CumulativeEstimateToCompleteLaborUnits          CumulativePlannedExpenseCost          CumulativePlannedLaborCost          cumulativeplannedlaborunits          CumulativeLimit          CumulativePlannedMaterialCost          CumulativePlannedNonlaborCost          CumulativePlannedNonlaborUnits          CumulativePlannedTotalCost          CumulativePlannedValueCost          CumulativePlannedValueLaborUnits          CumulativePeriodActualCost          CumulativePeriodActualExpenseCost          CumulativePeriodActualLaborCost          CumulativePeriodActualLaborUnits          CumulativePeriodActualMaterialCost          CumulativePeriodActualNonLaborCost          CumulativePeriodActualNonLaborUnits          CumulativePeriodAtCompletionExpenseCost          CumulativePeriodAtCompletionLaborCost          CumulativePeriodAtCompletionLaborUnits          CumulativePeriodAtCompletionMaterialCost          CumulativePeriodAtCompletionNonLaborCost</p>	
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	<p>CumulativePeriodAtCompletion NonLaborUnits</p> <p>CumulativePeriodAtCompletion TotalCost</p> <p>CumulativePeriodEarnedValueC ost</p> <p>CumulativePeriodEarnedValueL aborUnits</p> <p>CumulativePeriodEstimateAtCo mpletionCost</p> <p>CumulativePeriodEstimateAtCo mpletionLaborUnits</p> <p>CumulativePeriodPlannedValue Cost</p> <p>CumulativePeriodPlannedValue LaborUnits</p> <p>CumulativeRemainingExpenseC ost</p> <p>CumulativeRemainingLaborCost</p> <p>CumulativeRemainingLaborUnit s</p> <p>CumulativeRemainingMaterialC ost</p> <p>CumulativeRemainingNonlabor Cost</p> <p>CumulativeRemainingNonlabor Units</p> <p>CumulativeRemainingTotalCost</p> <p>CumulativeRemainingLateExpe nseCost</p> <p>CumulativeRemainingLateLabor Cost</p> <p>CumulativeRemainingLateLabor Units</p> <p>CumulativeRemainingLateMater ialCost</p> <p>CumulativeRemainingLateNonla borCost</p> <p>CumulativeRemainingLateNonla borUnits</p> <p>CumulativeRemainingLateTotal Cost</p>	
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## ReadProjectSpread Operation

Description: Reads the summarized spreads for the specified projects.

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: ReadProjectSpread

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier for the project. You can specify one or more ProjectObjectIds.
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
StartDate	dateTime	The start of the time period that you are interested in.
EndDate	dateTime	The end of the time period that you are interested in
IncludeCumulative	boolean	Set IncludeCumulative to true to read cumulative spread data.

<p>SpreadField</p>	<p>SummarizedSpreadFieldType</p> <p>string restricted to</p> <p>ActualCost ActualExpenseCost ActualLaborCost ActualLaborUnits ActualMaterialCost ActualNonlaborCost ActualNonlaborUnits ActualTotalCost AtCompletionExpenseCost AtCompletionLaborCost AtCompletionLaborUnits AtCompletionMaterialCost AtCompletionNonlaborCost AtCompletionNonlaborUnits AtCompletionTotalCost BaselinePlannedExpenseCost BaselinePlannedLaborCost BaselinePlannedLaborUnits BaselinePlannedMaterialCost BaselinePlannedNonlaborCost BaselinePlannedNonlaborUnits BaselinePlannedTotalCost EarnedValueCost EarnedValueLaborUnits EstimateAtCompletionCost EstimateAtCompletionLaborUnits EstimateToCompleteCost EstimateToCompleteLaborUnits</p>	<p>The fields you want to include in the spread. Specify one to many SpreadField elements.</p>

	PeriodActualCost PeriodActualExpenseCost PeriodActualLaborCost PeriodActualLaborUnits PeriodActualMaterialCost PeriodActualNonLaborCo st PeriodActualNonLaborUni ts PeriodAtCompletionExpe nseCost PeriodAtCompletionLabor Cost PeriodAtCompletionLabor Units PeriodAtCompletionMater ialCost PeriodAtCompletionNonL aborCost PeriodAtCompletionNonL aborUnits PeriodAtCompletionTotal Cost PeriodEarnedValueCost PeriodEarnedValueLabor Units PeriodEstimateAtComple tionCost PeriodEstimateAtComple tionLaborUnits PeriodPlannedValueCost PeriodPlannedValueLabo rUnits PlannedExpenseCost PlannedLaborCost PlannedLaborUnits PlannedMaterialCost PlannedNonlaborCost PlannedNonlaborUnits PlannedTotalCost PlannedValueCost PlannedValueLaborUnits RemainingExpenseCost RemainingLaborCost RemainingLaborUnits RemainingMaterialCost RemainingNonlaborCost RemainingNonlaborUnits RemainingTotalCost	
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	RemainingLateExpenseCost RemainingLateLaborCost RemainingLateLaborUnits RemainingLateMaterialCost RemainingLateNonlaborCost RemainingLateNonlaborUnits RemainingLateTotalCost	
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Output:

Message: ReadProjectSpreadResponse

Elements: One to many ProjectSpread elements that contain the following fields:

Field	Type	Description
ProjectId	string	The short code that is assigned to the project.
ProjectObjectId	int	The unique identifier of the project.
StartDate	dateTime	The start date of spread data.
EndDate	dateTime	The end date of the spread data.
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter	Specifies the spread interval for the EPS.

	Year FinancialPeriod Day	
Period	<p>SummarizedSpreadPeriod</p> <p>StartDate EndDate ActualCost ActualExpenseCost ActualLaborCost ActualLaborUnits ActualMaterialCost ActualNonlaborCost ActualNonlaborUnits ActualTotalCost AtCompletionExpenseCost AtCompletionLaborCost AtCompletionLaborUnits AtCompletionMaterialCost AtCompletionNonlaborCost AtCompletionNonlaborUnits AtCompletionTotalCost BaselinePlannedExpenseCost BaselinePlannedLaborCost BaselinePlannedLaborUnits BaselinePlannedMaterialCost BaselinePlannedNonlaborCost BaselinePlannedNonlaborUnits BaselinePlannedTotalCost EarnedValueCost EarnedValueLaborUnits EstimateAtCompletionCost EstimateAtCompletionLaborUnits</p>	<p>One or more SummarizedSpreadPeriods that contain the live activity spread data for the period.</p> <p>Contains the StartDate, EndDate, and one or more instances of the following data:</p>

	<p>EstimateToCompleteCost  EstimateToCompleteLab  orUnits  PlannedExpenseCost  PlannedLaborCost  PlannedLaborUnits  PlannedMaterialCost  PlannedNonlaborCost  PlannedNonlaborUnits  PlannedTotalCost  PlannedValueCost  PlannedValueLaborUnits  RemainingExpenseCost  RemainingLaborCost  RemainingLaborUnits  RemainingMaterialCost  RemainingNonlaborCost  RemainingNonlaborUnits  RemainingTotalCost  RemainingLateExpenseC  ost  RemainingLateLaborCost  RemainingLateLaborUnit  s  RemainingLateMaterialC  ost  RemainingLateNonlabor  Cost  RemainingLateNonlabor  Units  RemainingLateTotalCost  PeriodActualCost  PeriodActualExpenseCos  t  PeriodActualLaborCost  PeriodActualLaborUnits  PeriodActualMaterialCost  PeriodActualNonLaborCo  st  PeriodActualNonLaborUn  its  PeriodAtCompletionExpe  nseCost  PeriodAtCompletionLabor  Cost  PeriodAtCompletionLabor  Units  PeriodAtCompletionMater  ialCost</p>	
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	PeriodAtCompletionNonLaborCost PeriodAtCompletionNonLaborUnits PeriodAtCompletionTotalCost PeriodEarnedValueCost PeriodEarnedValueLaborUnits PeriodEstimateAtCompletionCost PeriodEstimateAtCompletionLaborUnits PeriodPlannedValueCost PeriodPlannedValueLaborUnits CumulativeActualCost CumulativeActualExpenseCost CumulativeActualLaborCost CumulativeActualLaborUnits CumulativeActualMaterialCost CumulativeActualNonlaborCost CumulativeActualNonlaborUnits CumulativeActualTotalCost CumulativeAtCompletionExpenseCost CumulativeAtCompletionLaborCost CumulativeAtCompletionLaborUnits CumulativeAtCompletionMaterialCost CumulativeAtCompletionNonlaborCost CumulativeAtCompletionNonlaborUnits CumulativeAtCompletionTotalCost CumulativeBaselinePlannedExpenseCost CumulativeBaselinePlannedLaborCost	
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	<p>CumulativeBaselinePlannedLaborUnits          CumulativeBaselinePlannedMaterialCost          CumulativeBaselinePlannedNonlaborCost          CumulativeBaselinePlannedNonlaborUnits          CumulativeBaselinePlannedTotalCost          CumulativeEarnedValueCost          CumulativeEarnedValueLaborUnits          CumulativeEstimateAtCompletionCost          CumulativeEstimateAtCompletionLaborUnits          CumulativeEstimateToCompleteCost          CumulativeEstimateToCompleteLaborUnits          CumulativePlannedExpenseCost          CumulativePlannedLaborCost          CumulativePlannedLaborUnits          CumulativePlannedMaterialCost          CumulativePlannedNonlaborCost          CumulativePlannedNonlaborUnits          CumulativePlannedTotalCost          CumulativePlannedValueCost          CumulativePlannedValueLaborUnits          CumulativeRemainingExpenseCost          CumulativeRemainingLaborCost          CumulativeRemainingLaborUnits          CumulativeRemainingMaterialCost          CumulativeRemainingNo</p>	
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	nlaborCost CumulativeRemainingNo nlaborUnits CumulativeRemainingTot alCost CumulativeRemainingLat eExpenseCost CumulativeRemainingLat eLaborCost CumulativeRemainingLat eLaborUnits CumulativeRemainingLat eMaterialCost CumulativeRemainingLat eNonlaborCost CumulativeRemainingLat eNonlaborUnits CumulativeRemainingLat eTotalCost	
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### ReadWBSSpread Operation

Description: Reads the summarized WBS spread data for the specified WBS spread.

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: ReadWBSSpread

Elements:

Field	Type	Description
WBSObjectld	int	The unique identifier for the WBS You can specify one or more WBSObjectlds.
PeriodType	SummarizedSpreadPeriodType	Spread period type enumerations are used to specify the spread interval for

	string restricted to Week Month Quarter Year FinancialPeriod Day	EPS, project, WBS, Activity, and resource assignment spreads.
StartDate	dateTime	The start of the time period that you are interested in.
EndDate	dateTime	The end of the time period that you are interested in.
IncludeCumulative	boolean	Set IncludeCumulative to true to read cumulative spread data.
SpreadField	SummarizedSpreadField Type  string restricted to ActualCost ActualExpenseCost ActualLaborCost ActualLaborUnits ActualMaterialCost ActualNonlaborCost ActualNonlaborUnits ActualTotalCost AtCompletionExpenseC ost AtCompletionLaborCost AtCompletionLaborUnit s AtCompletionMaterialC ost AtCompletionNonlabor Cost AtCompletionNonlabor	The fields you want to include in the spread. Specify one to many SpreadField elements.

	Units AtCompletionTotalCost BaselinePlannedExpenseCost BaselinePlannedLaborCost BaselinePlannedLaborUnits BaselinePlannedMaterialCost BaselinePlannedNonLaborCost BaselinePlannedNonLaborUnits BaselinePlannedTotalCost EarnedValueCost EarnedValueLaborUnits EstimateAtCompletionCost EstimateAtCompletionLaborUnits EstimateToCompleteCost EstimateToCompleteLaborUnits PeriodActualCost PeriodActualExpenseCost PeriodActualLaborCost PeriodActualLaborUnits PeriodActualMaterialCost PeriodActualNonLaborCost PeriodActualNonLaborUnits PeriodAtCompletionExpenseCost PeriodAtCompletionLaborCost PeriodAtCompletionLaborUnits PeriodAtCompletionMaterialCost PeriodAtCompletionNonLaborCost PeriodAtCompletionNonLaborUnits	
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	PeriodAtCompletionTotalCost PeriodEarnedValueCost PeriodEarnedValueLaborUnits PeriodEstimateAtCompletionCost PeriodEstimateAtCompletionLaborUnits PeriodPlannedValueCost PeriodPlannedValueLaborUnits PlannedExpenseCost PlannedLaborCost PlannedLaborUnits PlannedMaterialCost PlannedNonlaborCost PlannedNonlaborUnits PlannedTotalCost PlannedValueCost PlannedValueLaborUnits RemainingExpenseCost RemainingLaborCost RemainingLaborUnits RemainingMaterialCost RemainingNonlaborCost RemainingNonlaborUnits RemainingTotalCost RemainingLateExpenseCost RemainingLateLaborCost RemainingLateLaborUnits RemainingLateMaterialCost RemainingLateNonlaborCost RemainingLateNonlaborUnits RemainingLateTotalCost	
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Output:

Message: ReadWBSSpreadResponse

Elements: One to many WBSSpread elements that contain the following fields:

Field	Type	Description
WBSCode	string	The short code assigned to each WBS element for identification. Each WBS element is uniquely identified by concatenating its own code together with its parents' codes.
WBSObjectld	int	The unique identifier of the WBS.
StartDate	dateTime	The start date of spread data.
EndDate	dateTime	The end date of the spread data.
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day	Specifies the spread interval for the EPS.
Period		One or more

	<p>SummarizedSpreadPeriod</p> <p>StartDate</p> <p>EndDate</p> <p>ActualCost</p> <p>ActualExpenseCost</p> <p>ActualLaborCost</p> <p>ActualLaborUnits</p> <p>ActualMaterialCost</p> <p>ActualNonlaborCost</p> <p>ActualNonlaborUnits</p> <p>ActualTotalCost</p> <p>AtCompletionExpenseCost</p> <p>AtCompletionLaborCost</p> <p>AtCompletionLaborUnits</p> <p>AtCompletionMaterialCost</p> <p>AtCompletionNonlaborCost</p> <p>AtCompletionNonlaborUnits</p> <p>AtCompletionTotalCost</p> <p>BaselinePlannedExpenseCost</p> <p>BaselinePlannedLaborCost</p> <p>BaselinePlannedLaborUnits</p> <p>BaselinePlannedMaterialCost</p> <p>BaselinePlannedNonlaborCost</p> <p>BaselinePlannedNonlaborUnits</p> <p>BaselinePlannedTotalCost</p> <p>EarnedValueCost</p> <p>EarnedValueLaborUnits</p> <p>EstimateAtCompletionCost</p> <p>EstimateAtCompletionLaborUnits</p> <p>EstimateToCompleteCost</p> <p>EstimateToCompleteLaborUnits</p> <p>PlannedExpenseCost</p> <p>PlannedLaborCost</p> <p>PlannedLaborUnits</p> <p>PlannedMaterialCost</p> <p>PlannedNonlaborCost</p> <p>PlannedNonlaborUnits</p> <p>PlannedTotalCost</p> <p>PlannedValueCost</p> <p>PlannedValueLaborUnits</p> <p>RemainingExpenseCost</p> <p>RemainingLaborCost</p> <p>RemainingLaborUnits</p> <p>RemainingMaterialCost</p> <p>RemainingNonlaborCost</p>	<p>SummarizedSpreadPeriods that contain the live activity spread data for the period.</p> <p>Contains the StartDate, EndDate,</p> <p>and one or more instances of the following data:</p>
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	RemainingNonlaborUnits RemainingTotalCost RemainingLateExpenseCost RemainingLateLaborCost RemainingLateLaborUnits RemainingLateMaterialCost RemainingLateNonlaborCost RemainingLateNonlaborUnits RemainingLateTotalCost PeriodActualCost PeriodActualExpenseCost PeriodActualLaborCost PeriodActualLaborUnits PeriodActualMaterialCost PeriodActualNonLaborCost PeriodActualNonLaborUnits PeriodAtCompletionExpenseC ost PeriodAtCompletionLaborCost PeriodAtCompletionLaborUnits PeriodAtCompletionMaterialCo st PeriodAtCompletionNonLabor Cost PeriodAtCompletionNonLabor Units PeriodAtCompletionTotalCost PeriodEarnedValueCost PeriodEarnedValueLaborUnits PeriodEstimateAtCompletionC ost PeriodEstimateAtCompletionL aborUnits PeriodPlannedValueCost PeriodPlannedValueLaborUnit s CumulativeActualCost CumulativeActualExpenseCost CumulativeActualLaborCost CumulativeActualLaborUnits CumulativeActualMaterialCost CumulativeActualNonlaborCos t CumulativeActualNonlaborUnit s CumulativeActualTotalCost CumulativeAtCompletionExpe nseCost CumulativeAtCompletionLabor	
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	Cost CumulativeAtCompletionLabor Units CumulativeAtCompletionMater ialCost CumulativeAtCompletionNonla borCost CumulativeAtCompletionNonla borUnits CumulativeAtCompletionTotal Cost CumulativeBaselinePlannedEx penseCost CumulativeBaselinePlannedLa borCost CumulativeBaselinePlannedLa borUnits CumulativeBaselinePlannedM aterialCost CumulativeBaselinePlannedN onlaborCost CumulativeBaselinePlannedN onlaborUnits CumulativeBaselinePlannedTo talCost CumulativeEarnedValueCost CumulativeEarnedValueLabor Units CumulativeEstimateAtComple tionCost CumulativeEstimateAtComple tionLaborUnits CumulativeEstimateToComple teCost CumulativeEstimateToComple teLaborUnits CumulativePlannedExpenseC ost CumulativePlannedLaborCost CumulativePlannedLaborUnits CumulativePlannedMaterialCo st CumulativePlannedNonlaborC ost CumulativePlannedNonlaborU nits CumulativePlannedTotalCost CumulativePlannedValueCost CumulativePlannedValueLabo	
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	rUnits CumulativeRemainingExpense Cost CumulativeRemainingLaborCo st CumulativeRemainingLaborUn its CumulativeRemainingMaterial Cost CumulativeRemainingNonlabo rCost CumulativeRemainingNonlabo rUnits CumulativeRemainingTotalCo st CumulativeRemainingLateExp enseCost CumulativeRemainingLateLab orCost CumulativeRemainingLateLab orUnits CumulativeRemainingLateMat erialCost CumulativeRemainingLateNon laborCost CumulativeRemainingLateNon laborUnits CumulativeRemainingLateTota lCost	
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## ReadProjectResourceSpread Operation

Description: Reads the summarized spreads of the specified Project Resources

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: ReadProjectResourceSpread

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier for the project. Specify zero to many ProjectObjectIds.
ResourceObjectId	int	The unique identifier for the Resource. Specify zero to many ResourceObjectIds.
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
StartDate	dateTime	The start of the time period that you are interested in.
EndDate	dateTime	The end of the time period that you are interested in.
IncludeCumulative	boolean	Set IncludeCumulative to true to read cumulative spread data.
SpreadField	ResourceRoleSpreadFieldType string	The fields you want to include in the spread. Specify one to many SpreadField elements.

	restricted to ActualCost ActualOvertimeCost ActualOvertimeUnits ActualRegularCost ActualRegularUnits ActualUnits AtCompletionCost AtCompletionUnits Limit PeriodActualCost PeriodActualUnits PeriodAtCompletionCost PeriodAtCompletionUnits PlannedCost PlannedUnits RemainingCost RemainingLateCost RemainingLateUnits RemainingUnits StaffedActualCost StaffedActualOvertimeCost StaffedActualOvertimeUnits StaffedActualRegularCost StaffedActualRegularUnits StaffedActualUnits StaffedAtCompletionCost StaffedAtCompletionUnits StaffedPlannedCost StaffedPlannedUnits StaffedRemainingCost StaffedRemainingLateCost StaffedRemainingLateUnits StaffedRemainingUnits UnstaffedActualCost UnstaffedActualOvertimeCost UnstaffedActualOvertimeUnits UnstaffedActualRegularCost UnstaffedActualRegularUnits UnstaffedActualUnits UnstaffedAtCompletionCost UnstaffedAtCompletionUnits UnstaffedPlannedCost UnstaffedPlannedUnits UnstaffedRemainingCost UnstaffedRemainingLateCost UnstaffedRemainingLateUnits UnstaffedRemainingUnits	
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Output:

Message: ReadProjectResourceSpreadResponse

Elements: One to many ProjectResourceSpread elements that contain the following fields:

Field	Type	Description
ProjectId	string	The short code assigned to each project element for identification. Each project element is uniquely identified by concatenating its own code together with its parents' codes.
ProjectObjectId	int	The unique identifier of the project.
ResourceId	string	The short code assigned to each resource element for identification. Each resource element is uniquely identified by concatenating its own code together with its parents codes.
ResourceObjectId	int	The unique identifier of the resource.
StartDate	dateTime	The start date of spread data.
EndDate	dateTime	The end date of the spread data
PeriodType	SummarizedSpread PeriodType	Specifies the spread interval for the EPS.

	<p>string restricted to Week Month Quarter Year FinancialPeriod Day</p>	
<p>Period</p>	<p>ResourceRoleSpreadPeriod</p> <p>StartDate EndDate FinancialPeriodObjectID ActualCost ActualOvertimeCost ActualOvertimeUnits ActualRegularCost ActualRegularUnits ActualUnits AtCompletionCost AtCompletionUnits Limit PeriodActualCost PeriodActualUnits PeriodAtCompletionCost PeriodAtCompletionUnits PlannedCost PlannedUnits RemainingCost RemainingLateCost RemainingLateUnits RemainingUnits StaffedActualCost StaffedActualOvertimeCost StaffedActualOvertimeUnits StaffedActualRegularCost StaffedActualRegularUnits StaffedActualUnits</p>	<p>One or more ResourceRoleSpreadPeriods that contain the live activity spread data for the period.</p> <p>Contains the StartDate, EndDate, and one or more instances of the following data:</p>

	StaffedAtCompletion Cost StaffedAtCompletion Units StaffedPlannedCost StaffedPlannedUnits StaffedRemainingCo st StaffedRemainingLat eCost StaffedRemainingLat eUnits StaffedRemainingUn its UnstaffedActualCost UnstaffedActualOver timeCost UnstaffedActualOver timeUnits UnstaffedActualReg ularCost UnstaffedActualReg ularUnits UnstaffedActualUnits UnstaffedAtCompleti onCost UnstaffedAtCompleti onUnits UnstaffedPlannedCo st UnstaffedPlannedUn its UnstaffedRemaining Cost UnstaffedRemaining LateCost UnstaffedRemaining LateUnits UnstaffedRemaining Units CumulativeActualCo st CumulativeActualOv ertimeCost CumulativeActualOv ertimeUnits CumulativeActualRe gularCost CumulativeActualRe	
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	<p>gularUnits          CumulativeActualUnits          CumulativeAtCompletionCost          CumulativeAtCompletionUnits          CumulativeLimit          CumulativePeriodActualCost          CumulativePeriodActualUnits          CumulativePeriodAtCompletionCost          CumulativePeriodAtCompletionUnits          CumulativePlannedCost          CumulativePlannedUnits          CumulativeRemainingCost          CumulativeRemainingLateCost          CumulativeRemainingLateUnits          CumulativeRemainingUnits          CumulativeStaffedActualCost          CumulativeStaffedActualOvertimeCost          CumulativeStaffedActualOvertimeUnits          CumulativeStaffedActualRegularCost          CumulativeStaffedActualRegularUnits          CumulativeStaffedActualUnits          CumulativeStaffedAtCompletionCost          CumulativeStaffedAtCompletionUnits          CumulativeStaffedPlannedCost          CumulativeStaffedPlannedUnits          CumulativeStaffedR</p>	
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	emainingCost CumulativeStaffedR emainingLateCost CumulativeStaffedR emainingLateUnits CumulativeStaffedR emainingUnits CumulativeUnstaffed ActualCost CumulativeUnstaffed ActualOvertimeCost CumulativeUnstaffed ActualOvertimeUnits CumulativeUnstaffed ActualRegularCost CumulativeUnstaffed ActualRegularUnits CumulativeUnstaffed ActualUnits CumulativeUnstaffed AtCompletionCost CumulativeUnstaffed AtCompletionUnits CumulativeUnstaffed PlannedCost CumulativeUnstaffed PlannedUnits CumulativeUnstaffed RemainingCost CumulativeUnstaffed RemainingLateCost CumulativeUnstaffed RemainingLateUnits CumulativeUnstaffed RemainingUnits	
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### ReadCBSResourceSpread Operation

Description: Reads the summarized CBS spreads of the specified Project Resources

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: ReadCBSResourceSpread

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier for the project. Specify zero to many ProjectObjectIds.
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
Baselinelds	string	
SummaryDateField	CBSRsrcSummaryFieldType string restricted to SummaryActualFinish SummaryActualStart SummaryPlannedFinish SummaryPlannedStart SummaryRemainingFinish SummaryRemainingStart	The summary date you want to include in the spread. Specify one to many SummaryDateField elements.
SpreadField	CBSRsrcExpenseSpreadFieldType string restricted to ActualCost ActualUnits AtCompletionCost AtCompletionUnits PlannedCost PlannedUnits RemainingCost RemainingUnits	The fields you want to include in the spread. Specify one to many SpreadField elements.

Output:

Message: ReadCBSResourceSpreadResponse

Elements: One to many ReadCBSResourceSpread elements that contain the following fields:

<b>Field</b>	<b>Type</b>	<b>Description</b>
BaselineProjectObjectId	int	The unique identifier of the baseline project. The BaselineProjectObjectId equals the TargetProjectObjectId passed in as an input parameter.
ProjectObjectId	int	The unique identifier of the project object.
ProjectId	string	The unique identifier of the project.
ProjectName	string	The name of the project.
OriginalProjectObjectId	int	The unique identifier of the project from which the project baseline was created, if the current project is a project baseline.
CBSObjectId	int	The unique identifier of the CBS object.
ResourceObjectId	int	The unique identifier of the Resource object.
BaselineType	string	The baseline type you want to use in the spread.
DataDate	string	The current data date for the project.
ResourceId	string	The unique identifier of the resource.
ResourceName	string	The name of the resource.
ResourceType	string	The resource type.
UnitName	string	The unit you want to use in the spread.
UnitAbbreviation	string	The abbreviation of the unit you want to use in the spread.

CurrencyId	string	The unique identifier of the currency.
CurrencyName	string	The name of the currency.
SummaryActualCost	double	The Actual Cost.
SummaryActualUnit	double	The Actual Units.
SummaryAtCompletionCost	double	The At Completion Cost.
SummaryAtCompletionUnits	double	The At Completion Units.
SummaryPlannedCost	double	The Planned Cost.
SummaryPlannedUnits	double	The Planned Units.
SummaryRemainingCost	double	The Remaining Costs.
SummaryRemainingUnits	double	The Remaining Units.
SummaryActualFinish	dateTime	The Actual Finish date.
SummaryActualStart	dateTime	The Actual Start date.
SummaryPlannedFinish	dateTime	The Planned Finish date.
SummaryPlannedStart	dateTime	The Planned Start date.
SummaryRemainingFinish	dateTime	The date the project is scheduled to finish the remaining work.
SummaryRemainingStart	dateTime	The earliest remaining start of all activities.
StartDate	dateTime	The start date of the spread.
EndDate	dateTime	The end date of the spread.
PeriodType	SummarizedSpread PeriodType string restricted to Week Month Quarter Year Financial Period Day	Spread period type enumerations are used to specify the spread interval for CBS.

Period	CBSRsrcExpenseSp readPeriod	The field type of the spread.
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## ReadCBSEXPENSESPREAD Operation

Description: Reads the summarized CBS spreads of the specified project resources

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: ReadCBSEXPENSESPREAD

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier for the project. Specify zero to many ProjectObjectIds.
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
Baselinelds	string	The unique identifier of the baseline.
SpreadField	CBSRsrcExpenseSpreadField Type	Project Short Name of the project.

Output:

Message: ReadCBSEXPENSESPREADRESPONSE

Elements: One to many ReadCBSEXPENSESPREAD elements that contain the following fields:

<b>Field</b>	<b>Type</b>	<b>Description</b>
BaselineProjectObjectId	int	The unique identifier of the baseline project. The BaselineProjectObjectId equals the TargetProjectObjectId passed in as an input parameter.
ProjectObjectId	int	The unique identifier of the project object.
ProjectId	string	The unique identifier of the project.
ProjectName	string	The name of the project.
OriginalProjectObjectId	int	The unique identifier of the project from which the project baseline was created, if the current project is a project baseline.
CBSObjectId	int	The unique identifier of the CBS object.
ExpenseCategoryId	string	The unique identifier of the expense category.
ExpenseCategoryName	string	The name of the expense category.
BaselineType	string	The baseline type you want to use in the spread.
DataDate	dateTime	The current data date for the project.
SummaryActualCost	double	The Actual Cost.
SummaryActualUnit	double	The Actual Units.
SummaryAtCompletionCost	double	The At Completion Cost.
SummaryAtCompletionUnits	double	The At Completion Units.
SummaryPlannedCost	double	The Planned Cost.

SummaryPlannedUnits	double	The Planned Units.
SummaryRemainingCost	double	The Remaining Costs.
SummaryRemainingUnits	double	The Remaining Units.
StartDate	dateTime	The start date of the CBS spread.
EndDate	dateTime	The end date of the CBS spread.
PeriodType	SummarizedSpread PeriodType string restricted to Week Month Quarter Year FinancialPeriod Day	Spread period type enumerations are used to specify the interval for the CBS spread.
Period	CBSRsrcExpenseSp readPeriod string restricted to ActualCost ActualUnits AtCompletionCost AtCompletionUnits PlannedCost PlannedUnits RemainingCost RemainingUnits	One or more CBSRsrcExpenseSpreadTypes that contain the live activity spread data for the period.

## ReadProjectRoleSpread Operation

Description: Reads the spreads of the specified role assignments to the activities from the specified projects.

Service: **Spread Service** (on page 962)

Style: Document/literal wrapped

Input:

Message: ReadProjectRoleSpread

Elements:

Field	Type	Description
ProjectObjectId	int	The unique identifier for the project. You can specify zero or more ProjectObjectIds.
RoleObjectId	int	The unique identifier of the associated role. You can specify zero or more RoleObjectIds.
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
StartDate	dateTime	The start of the time period that you are interested in.
EndDate	dateTime	The end of the time period that you are interested in.
IncludeCumulative	boolean	Set IncludeCumulative to true to read cumulative spread data.
SpreadField	ResourceRoleSpreadFieldType	The fields you want to include in the spread. Specify one to many



	<p>string  restricted to  ActualCost  ActualOvertimeCost  ActualOvertimeUnits  ActualRegularCost  ActualRegularUnits  ActualUnits  AtCompletionCost  AtCompletionUnits  Limit  PeriodActualCost  PeriodActualUnits  PeriodAtCompletionCost  PeriodAtCompletionUnits  PlannedCost  PlannedUnits  RemainingCost  RemainingLateCost  RemainingLateUnits  RemainingUnits  StaffedActualCost  StaffedActualOvertimeCost  StaffedActualOvertimeUnits  StaffedActualRegularCost  StaffedActualRegularUnits  StaffedActualUnits  StaffedAtCompletionCost  StaffedAtCompletionUnits  StaffedPlannedCost  StaffedPlannedUnits  StaffedRemainingCost  StaffedRemainingLateCost  StaffedRemainingLateUnits  StaffedRemainingUnits  UnstaffedActualCost  UnstaffedActualOvertimeCo  st  UnstaffedActualOvertimeUn  its  UnstaffedActualRegularCos  t  UnstaffedActualRegularUnit  s  UnstaffedActualUnits  UnstaffedAtCompletionCost  UnstaffedAtCompletionUnit  s</p>	<p>SpreadField elements.</p>
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	UnstaffedPlannedCost UnstaffedPlannedUnits UnstaffedRemainingCost UnstaffedRemainingLateCo st UnstaffedRemainingLateUn its UnstaffedRemainingUnits	
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Output:

Message: ReadProjectRoleSpreadResponse

Elements: One to many ProjectRoleSpread elements that contain the following fields:

Field	Type	Description
ProjectId	string	The short code that uniquely identifies the project.
ProjectObjectId	int	The unique identifier of the project.
RoleId	string	The short code that uniquely identifies the role.
RoleObjectId	int	The unique identifier of the role.
StartDate	dateTime	The start date of spread data.
EndDate	dateTime	The end date of the spread data.

<p>PeriodType</p>	<p>SummarizedSpreadPeriodType</p> <p>string restricted to Week Month Quarter Year FinancialPeriod Day</p>	<p>Specifies the spread interval for the EPS.</p>
<p>Period</p>	<p>ResourceRoleSpreadPeriod</p> <p>StartDate EndDate FinancialPeriodObjectId ActualCost ActualOvertimeCost ActualOvertimeUnits ActualRegularCost ActualRegularUnits ActualUnits AtCompletionCost AtCompletionUnits Limit PeriodActualCost PeriodActualUnits PeriodAtCompletionCost PeriodAtCompletionUnits PlannedCost PlannedUnits RemainingCost RemainingLateCost RemainingLateUnits RemainingUnits StaffedActualCost StaffedActualOvertimeCost StaffedActualOvertimeUnits StaffedActualRegularCost StaffedActualRegularUnits StaffedActualUnits StaffedAtCompletionCost StaffedAtCompletionUnits StaffedPlannedCost StaffedPlannedUnits StaffedRemainingCost</p>	<p>One or more ResourceRoleSpreadPeriod elements that contain the live activity spread data for the period.</p> <p>Contains the StartDate, EndDate, and one or more instances of the following data:</p>

<p>                     StaffedRemainingLateCost                      StaffedRemainingLateUnits                      StaffedRemainingUnits                      UnstaffedActualCost                      UnstaffedActualOvertimeCost                      UnstaffedActualOvertimeUnits                      UnstaffedActualRegularCost                      UnstaffedActualRegularUnits                      UnstaffedActualUnits                      UnstaffedAtCompletionCost                      UnstaffedAtCompletionUnits                      UnstaffedPlannedCost                      UnstaffedPlannedUnits                      UnstaffedRemainingCost                      UnstaffedRemainingLateCost                      UnstaffedRemainingLateUnits                      UnstaffedRemainingUnits                      CumulativeActualCost                      CumulativeActualOvertimeCost                      CumulativeActualOvertimeUnits                      CumulativeActualRegularCost                      CumulativeActualRegularUnits                      CumulativeActualUnits                      CumulativeAtCompletionCost                      CumulativeAtCompletionUnits                      CumulativeLimit                      CumulativePeriodActualCost                      CumulativePeriodActualUnits                      CumulativePeriodAtCompletionCost                      CumulativePeriodAtCompletionUnits                      CumulativePlannedCost                      CumulativePlannedUnits                      CumulativeRemainingCost                      CumulativeRemainingLateCost                      CumulativeRemainingLateUnits                      CumulativeRemainingUnits                      CumulativeStaffedActualCost                      CumulativeStaffedActualOvertimeCos                      t                      CumulativeStaffedActualOvertimeUnit                      s                      CumulativeStaffedActualRegularCost                      CumulativeStaffedActualRegularUnits                      CumulativeStaffedActualUnits                      CumulativeStaffedAtCompletionCost                      CumulativeStaffedAtCompletionUnits                      CumulativeStaffedPlannedCost                      CumulativeStaffedPlannedUnits                      CumulativeStaffedRemainingCost                 </p>	
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	CumulativeStaffedRemainingLateCost CumulativeStaffedRemainingLateUnits CumulativeStaffedRemainingUnits CumulativeUnstaffedActualCost CumulativeUnstaffedActualOvertimeCost CumulativeUnstaffedActualOvertimeUnits CumulativeUnstaffedActualRegularCost CumulativeUnstaffedActualRegularUnits CumulativeUnstaffedActualUnits CumulativeUnstaffedAtCompletionCost CumulativeUnstaffedAtCompletionUnits CumulativeUnstaffedPlannedCost CumulativeUnstaffedPlannedUnits CumulativeUnstaffedRemainingCost CumulativeUnstaffedRemainingLateCost CumulativeUnstaffedRemainingLateUnits CumulativeUnstaffedRemainingUnits	
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### ReadWBSResourceSpread Operation

Description: Reads the summarized spreads of the Resources for the specified WBS.

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: ReadWBSResourceSpread

Elements:

Field	Type	Description
WBSObjectId	int	The unique identifier for the

		WBS.You can specify one or more WBSObjectld.
ResourceObjectld	int	The unique identifier for the Resource. Specify zero to many ResourceObjectlds.
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
StartDate	dateTime	The start of the time period that you are interested in.
EndDate	dateTime	The end of the time period that you are interested in
IncludeCumulative	boolean	Set IncludeCumulative to true to read cumulative spread data.
SpreadField	ResourceRoleSpreadFieldType string restricted to ActualCost ActualOvertimeCost ActualOvertimeUnits ActualRegularCost ActualRegularUnits ActualUnits AtCompletionCost AtCompletionUnits Limit PeriodActualCost PeriodActualUnits	The fields you want to include in the spread. Specify one to many SpreadField elements.

	PeriodAtCompletionCost PeriodAtCompletionUnits PlannedCost PlannedUnits RemainingCost RemainingLateCost RemainingLateUnits RemainingUnits StaffedActualCost StaffedActualOvertimeCost StaffedActualOvertimeUnits StaffedActualRegularCost StaffedActualRegularUnits StaffedActualUnits StaffedAtCompletionCost StaffedAtCompletionUnits StaffedPlannedCost StaffedPlannedUnits StaffedRemainingCost StaffedRemainingLateCost StaffedRemainingLateUnits StaffedRemainingUnits UnstaffedActualCost UnstaffedActualOvertimeCost UnstaffedActualOvertimeUnits UnstaffedActualRegularCost UnstaffedActualRegularUnits UnstaffedActualUnits UnstaffedAtCompletionCost UnstaffedAtCompletionUnits UnstaffedPlannedCost UnstaffedPlannedUnits UnstaffedRemainingCost UnstaffedRemainingLateCost UnstaffedRemainingLateUnits UnstaffedRemainingUnits	
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Output:

Message: ReadWBSResourceSpreadResponse

Elements: One to many WBSResourceSpread elements that contain the following fields:

Field	Type
WBSCode	string

WBSObjectId	int
ResourceId	string
ResourceObjectId	int
StartDate	dateTime
EndDate	dateTime
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day
Period	ResourceRoleSpreadPeriod StartDate EndDate FinancialPeriodObjectId ActualCost ActualOvertimeCost ActualOvertimeUnits ActualRegularCost ActualRegularUnits ActualUnits AtCompletionCost AtCompletionUnits Limit PeriodActualCost PeriodActualUnits PeriodAtCompletionCost PeriodAtCompletionUnits PlannedCost



	PlannedUnits RemainingCost RemainingLateCost RemainingLateUnits RemainingUnits StaffedActualCost StaffedActualOvertimeCost StaffedActualOvertimeUnits StaffedActualRegularCost StaffedActualRegularUnits StaffedActualUnits StaffedAtCompletionCost StaffedAtCompletionUnits StaffedPlannedCost StaffedPlannedUnits StaffedRemainingCost StaffedRemainingLateCost StaffedRemainingLateUnits StaffedRemainingUnits UnstaffedActualCost UnstaffedActualOvertimeCost UnstaffedActualOvertimeUnits UnstaffedActualRegularCost UnstaffedActualRegularUnits UnstaffedActualUnits UnstaffedAtCompletionCost UnstaffedAtCompletionUnits UnstaffedPlannedCost UnstaffedPlannedUnits UnstaffedRemainingCost UnstaffedRemainingLateCost UnstaffedRemainingLateUnits UnstaffedRemainingUnits CumulativeActualCost CumulativeActualOvertimeCost CumulativeActualOvertimeUnits CumulativeActualRegularCost CumulativeActualRegularUnits CumulativeActualUnits CumulativeAtCompletionCost CumulativeAtCompletionUnits CumulativeLimit CumulativePeriodActualCost CumulativePeriodActualUnits CumulativePeriodAtCompletionCost CumulativePeriodAtCompletionUnits CumulativePlannedCost CumulativePlannedUnits CumulativeRemainingCost
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	<p>                     CumulativeRemainingLateCost                      CumulativeRemainingLateUnits                      CumulativeRemainingUnits                      CumulativeStaffedActualCost                      CumulativeStaffedActualOvertimeCost                      CumulativeStaffedActualOvertimeUnits                      CumulativeStaffedActualRegularCost                      CumulativeStaffedActualRegularUnits                      CumulativeStaffedActualUnits                      CumulativeStaffedAtCompletionCost                      CumulativeStaffedAtCompletionUnits                      CumulativeStaffedPlannedCost                      CumulativeStaffedPlannedUnits                      CumulativeStaffedRemainingCost                      CumulativeStaffedRemainingLateCost                      CumulativeStaffedRemainingLateUnits                      CumulativeStaffedRemainingUnits                      CumulativeUnstaffedActualCost                      CumulativeUnstaffedActualOvertimeCost                      CumulativeUnstaffedActualOvertimeUnits                      CumulativeUnstaffedActualRegularCost                      CumulativeUnstaffedActualRegularUnits                      CumulativeUnstaffedActualUnits                      CumulativeUnstaffedAtCompletionCost                      CumulativeUnstaffedAtCompletionUnits                      CumulativeUnstaffedPlannedCost                      CumulativeUnstaffedPlannedUnits                      CumulativeUnstaffedRemainingCost                      CumulativeUnstaffedRemainingLateCost                      CumulativeUnstaffedRemainingLateUnits                      CumulativeUnstaffedRemainingUnits                 </p>
--	--

## ReadWBSExpenseSpread Operation

Description: Reads the summarized WBS spreads of the specified project resources

**Service:** *Spread Service* (on page 962)

Style: Document/literal wrapped

Input:

Message: ReadWBSExpenseSpread

Elements:

<b>Field</b>	<b>Type</b>	<b>Description</b>
WBSObjectld	int	The unique identifier of the associated WBS object.
ExpenseCategoryObjectld	int	The unique identifier of the ExpenseCategory object.
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year Financial Period Day	The spread interval for WBS
StartDate	dateTime	The start date of the WBS Expense spread.
EndDate	dateTime	The end date of the WBS Expense spread.
IncludeCumulative	boolean	Enables the cumulative value.
SpreadField	ExpenseSpreadFieldType string restricted to ActualCost AtCompletionCost PlannedCost RemainingCost	One or more SpreadFieldTypes that contain the live activity spread data for the period.

Output:

Message: ReadWBSExpenseSpreadResponse

Elements: One to many ReadWBSExpenseSpread elements that contain the following fields:

<b>Field</b>	<b>Type</b>	<b>Description</b>
WBSCode	string	The short code assigned to each WBS element.
WBSObjectld	int	The unique identifier of the WBS object.

ExpenseCategoryName	string	The name of the expense category.
ExpenseCategoryObjectId	int	The unique identifier of the ExpenseCategory object.
StartDate	dateTime	The start date of the WBS expense spread.
EndDate	dateTime	The end date of the WBS expense spread.
PeriodType	SummarizedSpread PeriodType string restricted to Week Month Quarter Year Financial Period Day	The spread interval for WBS.
Period	ExpenseSpreadPeriod string restricted to ActualCost AtCompletionCost PlannedCost RemainingCost	One or more ExpenseSpreadFieldTypes that contain the live activity spread data for the period.

### ReadWBSRoleSpread Operation

Description: Reads the spreads of the specified role assignments to the activities from the specified WBS.

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: ReadWBSRoleSpread

Elements:

Field	Type	Description
WBSObjectId	int	The unique identifier for the

		WBS.You can specify one or more WBSObjectld.
RoleObjectld	int	The unique identifier for the Role. Specify zero to many ResourceObjectlds
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
StartDate	dateTime	The start of the time period that you are interested in.
EndDate	dateTime	The end of the time period that you are interested in
IncludeCumulative	boolean	Set IncludeCumulative to true to read cumulative spread data.
SpreadField	ResourceRoleSpreadFieldType string restricted to ActualCost ActualOvertimeCost ActualOvertimeUnits ActualRegularCost ActualRegularUnits ActualUnits AtCompletionCost AtCompletionUnits Limit PeriodActualCost PeriodActualUnits	The fields you want to include in the spread. Specify one to many SpreadField elements.

	PeriodAtCompletionCost PeriodAtCompletionUnits PlannedCost PlannedUnits RemainingCost RemainingLateCost RemainingLateUnits RemainingUnits StaffedActualCost StaffedActualOvertimeCost StaffedActualOvertimeUnits StaffedActualRegularCost StaffedActualRegularUnits StaffedActualUnits StaffedAtCompletionCost StaffedAtCompletionUnits StaffedPlannedCost StaffedPlannedUnits StaffedRemainingCost StaffedRemainingLateCost StaffedRemainingLateUnits StaffedRemainingUnits UnstaffedActualCost UnstaffedActualOvertimeCost UnstaffedActualOvertimeUnits UnstaffedActualRegularCost UnstaffedActualRegularUnits UnstaffedActualUnits UnstaffedAtCompletionCost UnstaffedAtCompletionUnits UnstaffedPlannedCost UnstaffedPlannedUnits UnstaffedRemainingCost UnstaffedRemainingLateCost UnstaffedRemainingLateUnits UnstaffedRemainingUnits	
--	--	--

Output:

Message: ReadWBSRoleSpreadResponse

Elements: One to many WBSRoleSpread elements that contain the following fields:

Field	Type
WBSCode	string

WBSObjectld	int
Roleld	string
RoleObjectld	int
StartDate	dateTime
EndDate	dateTime
PeriodType	SummarizedSpreadPeriodType string restricted to Week Month Quarter Year FinancialPeriod Day
Period	ResourceRoleSpreadPeriod StartDate EndDate FinancialPeriodObjectld ActualCost ActualOvertimeCost ActualOvertimeUnits ActualRegularCost ActualRegularUnits ActualUnits AtCompletionCost AtCompletionUnits Limit PeriodActualCost PeriodActualUnits PeriodAtCompletionCost PeriodAtCompletionUnits PlannedCost

	PlannedUnits RemainingCost RemainingLateCost RemainingLateUnits RemainingUnits StaffedActualCost StaffedActualOvertimeCost StaffedActualOvertimeUnits StaffedActualRegularCost StaffedActualRegularUnits StaffedActualUnits StaffedAtCompletionCost StaffedAtCompletionUnits StaffedPlannedCost StaffedPlannedUnits StaffedRemainingCost StaffedRemainingLateCost StaffedRemainingLateUnits StaffedRemainingUnits UnstaffedActualCost UnstaffedActualOvertimeCost UnstaffedActualOvertimeUnits UnstaffedActualRegularCost UnstaffedActualRegularUnits UnstaffedActualUnits UnstaffedAtCompletionCost UnstaffedAtCompletionUnits UnstaffedPlannedCost UnstaffedPlannedUnits UnstaffedRemainingCost UnstaffedRemainingLateCost UnstaffedRemainingLateUnits UnstaffedRemainingUnits CumulativeActualCost CumulativeActualOvertimeCost CumulativeActualOvertimeUnits CumulativeActualRegularCost CumulativeActualRegularUnits CumulativeActualUnits CumulativeAtCompletionCost CumulativeAtCompletionUnits CumulativeLimit CumulativePeriodActualCost CumulativePeriodActualUnits CumulativePeriodAtCompletionCost CumulativePeriodAtCompletionUnits CumulativePlannedCost CumulativePlannedUnits CumulativeRemainingCost
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	CumulativeRemainingLateCost CumulativeRemainingLateUnits CumulativeRemainingUnits CumulativeStaffedActualCost CumulativeStaffedActualOvertimeCost CumulativeStaffedActualOvertimeUnits CumulativeStaffedActualRegularCost CumulativeStaffedActualRegularUnits CumulativeStaffedActualUnits CumulativeStaffedAtCompletionCost CumulativeStaffedAtCompletionUnits CumulativeStaffedPlannedCost CumulativeStaffedPlannedUnits CumulativeStaffedRemainingCost CumulativeStaffedRemainingLateCost CumulativeStaffedRemainingLateUnits CumulativeStaffedRemainingUnits CumulativeUnstaffedActualCost CumulativeUnstaffedActualOvertimeCos t CumulativeUnstaffedActualOvertimeUnit s CumulativeUnstaffedActualRegularCost CumulativeUnstaffedActualRegularUnits CumulativeUnstaffedActualUnits CumulativeUnstaffedAtCompletionCost CumulativeUnstaffedAtCompletionUnits CumulativeUnstaffedPlannedCost CumulativeUnstaffedPlannedUnits CumulativeUnstaffedRemainingCost CumulativeUnstaffedRemainingLateCost CumulativeUnstaffedRemainingLateUnit s CumulativeUnstaffedRemainingUnits
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### ReadResourceAssignmentSpread Operation

Description: Reads the live resource assignment spread data from the specified resource assignment.

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: ReadResourceAssignmentSpread

Elements:

Field	Type	Description
ResourceAssignmentObjectId	int	The unique identifier for the ResourceAssignment. You can specify one or more ResourceAssignmentObjectId.
PeriodType	SpreadPeriodType string restricted to Hour Day Week Month Quarter Year FinancialPeriod	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.
StartDate	dateTime	The start of the time period that you are interested in.
EndDate	dateTime	The end of the time period that you are interested in.
IncludeCumulative	boolean	Set IncludeCumulative to true to read cumulative spread data.

<p>SpreadField</p>	<p>ResourceAssignmentSpreadFieldType</p> <p>string restricted to ActualCost ActualOvertimeCost ActualOvertimeUnits ActualRegularCost ActualRegularUnits ActualUnits AtCompletionCost AtCompletionUnits PlannedCost PlannedUnits RemainingCost RemainingLateCost RemainingLateUnits RemainingUnits StaffedRemainingCost StaffedRemainingLateCost StaffedRemainingLateUnits StaffedRemainingUnits UnstaffedRemainingCost UnstaffedRemainingLateCost UnstaffedRemainingLateUnits UnstaffedRemainingUnits PeriodActualCost PeriodActualUnits PeriodAtCompletionCost PeriodAtCompletionUnits</p>	<p>The fields you want to include in the spread. Specify one to many SpreadField elements.</p>
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Output:

Message: ReadResourceAssignmentSpreadResponse

Elements: One to many ResourceAssignmentSpread elements that contain the following fields:

Field	Type	Description
ResourceAssignmentObjectId	int	The unique identifier of the ResourceAssignment.
StartDate	dateTime	The start date of spread data.
EndDate	dateTime	The end date of the spread data.
PeriodType	SpreadPeriodType  string restricted to Hour Day Week Month Quarter Year FinancialPeriod	Specifies the spread interval for the EPS.
Period	ResourceAssignmentSpreadPeriod  StartDate EndDate ActualCost ActualOvertimeCost ActualOvertimeUnits ActualRegularCost ActualRegularUnits ActualUnits AtCompletionCost AtCompletionUnits PlannedCost PlannedUnits RemainingCost	One or more ResourceAssignmentSpreadPeriods that contain the live activity spread data for the period.  Contains the StartDate, EndDate, and one or more instances of the following data:

	RemainingLateCost RemainingLateUnits RemainingUnits StaffedRemainingCost StaffedRemainingLateCos t StaffedRemainingLateUnit s StaffedRemainingUnits UnstaffedRemainingCost UnstaffedRemainingLateC ost UnstaffedRemainingLateU nits UnstaffedRemainingUnits CumulativeActualCost CumulativeActualOvertim eCost CumulativeActualOvertim eUnits CumulativeActualRegular Cost CumulativeActualRegular Units CumulativeActualUnits CumulativeAtCompletionC ost CumulativeAtCompletionU nits CumulativePlannedCost CumulativePlannedUnits CumulativeRemainingCos t CumulativeRemainingLate Cost CumulativeRemainingLate Units CumulativeRemainingUnit s CumulativeStaffedRemain ingCost CumulativeStaffedRemain ingLateCost CumulativeStaffedRemain ingLateUnits CumulativeStaffedRemain ingUnits CumulativeUnstaffedRem ainingCost	
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	CumulativeUnstaffedRemainingLateCost CumulativeUnstaffedRemainingLateUnits CumulativeUnstaffedRemainingUnits	
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### ReadResourceAssignmentSpreadZip Operation

Description: Reads the live resource assignment spread data from the specified resource assignments and exports the data to a compressed zip file.

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: ReadResourceAssignmentSpreadZip

Elements:

Field	Type	Description
ResourceAssignmentObjectId	int	The unique identifier for the ResourceAssignment. You can specify one or more ResourceAssignmentObjectId.
PeriodType	SpreadPeriodType  string restricted to Hour Day Week Month Quarter	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.

	Year FinancialPeriod	
StartDate	dateTime	The start of the time period that you are interested in.
EndDate	dateTime	The end of the time period that you are interested in.
IncludeCumulative	boolean	Set IncludeCumulative to true to read cumulative spread data.
SpreadField	ResourceAssignmentSpreadFieldType  string restricted to ActualCost ActualOvertimeCost ActualOvertimeUnits ActualRegularCost ActualRegularUnits ActualUnits AtCompletionCost AtCompletionUnits PlannedCost PlannedUnits RemainingCost RemainingLateCost RemainingLateUnits RemainingUnits StaffedRemainingCost StaffedRemainingLateCost StaffedRemainingLateUnits StaffedRemainingUnits UnstaffedRemainingCost	The fields you want to include in the spread. Specify one to many SpreadField elements.

	UnstaffedRemainingLate Cost UnstaffedRemainingLate Units UnstaffedRemainingUnit s PeriodActualCost PeriodActualUnits PeriodAtCompletionCost PeriodAtCompletionUnits	
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Output:

Message: ReadResourceAssignmentSpreadZipResponse

### UpdateResourceAssignmentSpread Operation

**Service:** *Spread Service (on page 962)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceAssignmentSpread

Elements:

Field	Type	Description
PeriodType	SpreadPeriodType  string restricted to Hour Day Week Month Quarter Year FinancialPeriod	Spread period type enumerations are used to specify the spread interval for EPS, project, WBS, Activity, and resource assignment spreads.



ResourceAssignmentSpread	ResourceAssignmentObjectID Period StartDate PlannedUnits RemainingUnits	The live resource assignment spread data.
ResourceAssignmentObjectID	int	The unique ID of the associated resource assignment.
Period	StartDate PlannedUnits RemainingUnits	
StartDate	dateTime	The start of the time period that you are interested in.
PlannedUnits	double	The planned units of work for the resource assignment on the activity. This field is named BudgetedUnits in Primavera's Engineering & Construction and Maintenance & Turnaround solutions.
RemainingUnits	double	The remaining units of work to be performed by this resource on this activity. Before the activity is started, the remaining units are the same as the planned units. After the activity is completed, the remaining units are zero.

Output:

Message: UpdateResourceAssignmentSpreadResponse

Elements: One to many elements that contain the following fields:

Field	Type
Return	boolean

## SyncServiceV1 Service

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### Operations:

- ReadProjectBudget Operation*** (on page 1042)
- ReadProject Operation*** (on page 1044)
- ResolveProjects Operation*** (on page 1048)
- ReadResource Operation*** (on page 1051)
- ReadResourceHours Operation*** (on page 1052)
- ReadProjectByProjectCode Operation*** (on page 1053)
- UpdateProject Operation*** (on page 1054)
- UpdateResource Operation*** (on page 1057)
- UpdateGlobalObjects Operation*** (on page 1058)
- ReadGlobalObjects Operation*** (on page 1065)

### WSDL: V1.wsdl

Primary Key Field: Object ID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Sync/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6/ws/services/SyncServiceV1?wsdl>
- <https://<hostname>:<port number>/p6/ws/services/SyncServiceV1?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.authentication.SyncServiceV1`

### Description:

The SyncServiceV1 service enables you to connect to P6 EPPM from an external application. Use this web service to setup connectivity with P6 EPPM from an external application such as Primavera Gateway.

## ReadProjectBudget Operation

Description: Reads the project budget data.

**Service: SyncServiceV1 Service (on page 1042)**

Style: Document/literal wrapped

Input:

Message: ReadProjectBudget

Elements:

Field	Type	Description
ProjectObjectId	int	The unique ID of the associated project.
ProjectBudgetScope	string restricted to Project Top Level Lowest	The scope of the project budget.
IncludeSummaryType	boolean	An indicator that determines whether to include SummaryType with the project budget.
WBSLevel	int	The WBS levels to be included with the project budget.
BusinessObjectOptions	<b>BusinessObjectOptions Element</b> (on page 375)	Specifies which business objects to export according to the following rules:  If no BusinessObjectOptions are specified, then all of the business objects in the project are exported. If any BusinessObjectOptions are specified, then only those business objects specified by the BusinessObjectOptions element are exported.

Output:

Message: ReadProjectBudgetResponse

Elements: A ProjectBudgetResponse element that contains the following fields:

Field	Type	Description
Project	ProjectType	Project data of a project identified in P6.
WBS	WBSType	Work Breakdown Structure associated with the project.
ResourceSummary	ResourceSummaryType	Summary of the resources associated with the project.
RoleSummary	RoleSummaryType	Summary of roles associated with the project.
ExpenseSummary	ExpenseSummaryType	Summary of expenses associated with the project.

## ReadProject Operation

Description: Reads the project data.

**Service:** *SyncServiceV1 Service* (on page 1042)

Style: Document/literal wrapped

Input:

Message: ReadProject

Elements:

Field	Type	Description
RequestSettings	ReadProjectRequestSettingsType	The settings used while reading a project.
ProjectObjectId	int	The unique ID of the associated project.
WBSLevel	int	The WBS levels to be included with the project budget.
SkipOrdering	boolean	An indicator that determines whether to skip ordering
PagingObjectLimit	int	The maximum number of objects to get per page of the response. Specifying this limit turns on paging.
BusinessObjectOptions	<b><i>BusinessObjectOptions Element</i></b> (on page 375)	Specifies which business objects to export according to the following rules:  If no BusinessObjectOptions are specified, then all of the business objects in the project are exported. If any BusinessObjectOptions are specified, then only those business objects specified by the BusinessObjectOptions element are exported.

Output:

Message: ReadProjectResponse

Elements: A ReadProjectResponse element that contains the following fields:

<b>Field</b>	<b>Type</b>	<b>Description</b>
Role	RoleType	The roles included in the project.
Resource	ResourceType	The resources included in the project.
Calendar	CalendarType	The calendar associated with the project.
RiskThreshold	RiskThresholdType	The risk threshold associated with the project.
RiskThresholdlevel	RiskThresholdLevelType	The risk threshold level associated with the project.
RiskMatrix	RiskMatrixType	The risk matrix associated with the project.
RiskMatrixScore	RiskMatrixScoreType	The risk matrix score associated with the project.
RiskMatrixThreshold	RiskMatrixThresholdType	The risk matrix threshold associated with the project.
Project	ProjectType	The project identified in P6 EPPM.
BaselineProject	BaselineProjectType	The baseline project associated with the project.
WBS	WBSType	The WBS associated with the project.

CBS	CBSType	The CBS associated with the project.
CBSDurationSummary	CBSDurationSummaryType	The CBS Duration Summary associated with the project.
ProjectResource	ProjectResourceType	The project resource associated with the project.
Activity	ActivityType	The activity associated with the project.
ResourceAssignment	ResourceAssignmentType	The Resource Assignment associated with the project.
ActivityExpense	ActivityExpenseType	The Activity Expense associated with the project.
ActivityNote	ActivityNoteType	The Activity Note associated with the project.
Relationship	RelationshipType	The relationships associated with the project.
Risk	RiskType	The risks associated with the project.
ActivityRisk	ActivityRiskType	The activity risk associated with the project.
RiskImpact	RiskImpactType	The risk impact associated with the project.
RiskResponsePlan	RiskResponsePlanType	The risk response plan associated with the project.

RiskResponseAction	RiskResponseActionType	The risk response actions associated with the project.
RiskResponseActionImpact	RiskResponseActionImpactType	The risk response action impacts associated with the projects.
LeanTask	LeanTaskType	The tasks associated with each activity in a project integrated with the Oracle Primavera Cloud Tasks app.
ActivityStep	ActivityStepType	The activity steps associated with each activity in the project.
PagingKey		
ProcessedGlobalObjects		

## ResolveProjects Operation

Description: Retrieves ProjectType of a ProjectObjectID.

**Service:** *SyncServiceV1 Service (on page 1042)*

Style: Document/literal wrapped

Input:

Message: ResolveProjects

Elements:

Field	Type	Description
Code	CodeAssignmentType	The Assignment Codes associated with the project.



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Project	ProjectOption	The project identified in P6 EPPM.
ProjectIds	Ids	The unique ID of the project.
EPSIds	Ids	The EPS ID associated with the project.
UpdatedSince	dateTime	Optional date used to filter results on the basis of comparing against the LastUpdateDate of the objects specified in the UpdatedSinceObjects list. Only objects updated after the specified UpdatedSince date will be returned.

UpdatedSinceObjects	string	Optional comma separated list of child object types of the project object to return if the objects have been updated since the UpdatedSince date specified. The object types available are: 'Project' 'WBS' 'Activity' 'ResourceAssignment' 'ActivityCode' 'ActivityCodeType(project)' 'ActivityExpense' 'ActivityRisk' 'ActivityStep' 'Calendar' 'CBS' 'LeanTask' 'ProjectResource' 'Relationship' 'Risk' 'RiskImpact' 'RiskResponseAction' 'RiskResponseActionImpact' 'RiskResponsePlan'
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Output:

Message: ResolveProjectsResponse

Elements: A ReadProjectResponse element that contains the following field:

Field	Type	Description
Project	ProjectType	The projects identified in P6 EPPM.

## ReadResource Operation

Description: Reads the Resource data.

**Service:** *SyncServiceV1 Service (on page 1042)*

Style: Document/literal wrapped

Input:

Message: ReadResource

Elements:

Field	Type	Description
ResourceObjectId	int	The Resource Object Ids associated with a resource.
Filter	string	The filter criteria for Resource Objects.
ReadResourceOptions	ReadResourceOptions	The Resource fields that need to be read.

Output:

Message: ReadResourceResponse

Elements: A ReadResourceResponse element that contains the following fields:

Field	Type	Description
Resource	ResourceType	The Resources associated with a project in P6 EPPM.
ResourceRate	ResourceRateType	The resource rates associated with each resource.

## ReadResourceHours Operation

Description: Reads the ResourceHours.

**Service:** *SyncServiceV1 Service (on page 1042)*

Style: Document/literal wrapped

Input:

Message: ReadResourceHours

Elements:

Field	Type	Description
Project	ProjectRollupType	The project identified in P6 EPPM.
Filter	ResourceHoursFilterType	The search criteria filter.
ReadResourceHoursOptions	ReadResourceHoursOptions	The ResourceHours fields that need to be read.

Output:

Message: ReadResourceHoursResponse

Elements: A ReadResourceHoursResponse element that contains the following field:

Field	Type	Description
ResourceHour	ResourceHourType	The resource-timesheet hours.
Project	ProjectType	The project identified in P6 EPPM.

TimesheetPeriod	TimesheetPeriodType	The timesheet period associated with the resource.
Timesheet	TimesheetType	The timesheets associated with the resource.

### ReadProjectByProjectCode Operation

Description: Reads projects by project code.

**Service:** *SyncServiceV1 Service (on page 1042)*

Style: Document/literal wrapped

Input:

Message: ReadProjectByProjectCode

Elements:

Field	Type	Description
Code	CodeAssignmentType	The project codes associated with a project.
Project	ProjectOption	The project field name.

Output:

Message: ReadProjectByProjectCodeResponse

Elements: A ReadProjectByProjectCodeResponse element that contains the following field:

Field	Type	Description
Project	ProjectType	The project identified in P6 EPPM.

## UpdateProject Operation

Description: Reads and updates the project data in P6 EPPM.

**Service:** *SyncServiceV1 Service (on page 1042)*

Style: Document/literal wrapped

Input:

Message: UpdateProject

Elements:

Field	Type	Description
RequestSettings	UpdateProjectRequestSettingsType	The settings required while updating project data.
Project	ProjectType	The Project identified in P6 EPPM.
BaselineProject	BaselineProjectType	The baseline associated with the project.
Calendar	CalendarType	The calendar associated with the project.
WBS	WBSType	The Work Breakdown Structure of the project.
CBS	CBSType	The Cost Breakdown Structure of the project.
ActivityCodeType	ActivityCodeTypeType	The activity code types of the project.
Activity	ActivityType	The activities of the project.
ActivityExpense	ActivityExpenseType	The activity expenses of the project.

ActivityNote	ActivityNoteType	The activity notes of the project.
ResourceAssignment	ResourceAssignmentType	The resource assignments of the project.
ProjectResource	ProjectResourceType	The project resources of the project.
Relationship	RelationshipType	The relationships of the project.
Risk	RiskType	The risks associated with the project.
ActivityRisk	ActivityRiskType	The activity risks associated with the project.
RiskImpact	RiskImpactType	The risk impacts of the project.
RiskResponsePlan	RisResponsePlanType	The risk response plans of the project.
RiskResponseAction	RiskResponseActionType	The risk response actions of the project.
LeanTask	LeanTaskType	The tasks associated with each activity in a project integrated with the Oracle Primavera Cloud Tasks app.
ActivityStep	ActivityStepType	The activity steps associated with the activities of project.

Output:

Message: UpdateProjectResponse

Elements: An UpdateProjectresponse element that contains the following fields:

<b>Field</b>	<b>Type</b>	<b>Description</b>
ProjectResponse	GeneralResponseType	The projects identified in P6 EPPM.
BaselineProjectResponse	GeneralResponseType	The baseline project of the projects.
CalendarResponse	GeneralResponseType	The calendar associated with the project.
WBSResponse	GeneralResponseType	The Work Breakdown Structure of the project.
CBSResponse	GeneralResponseType	The Cost Breakdown Structure of the project.
ActivityCodeTypeResponse	GeneralResponseType	The Activity Code Types of the project.
ActivityCodeResponse	GeneralResponseType	The Activity Codes of the project.
ActivityExpenseResponse	GeneralResponseType	The Activity Expense Response of the project.
ActivityNoteResponse	GeneralResponseType	The Activity Notes of the project.
ResourceAssignmentResponse	GeneralResponseType	The Resource Assignments of the project.
ProjectResourceResponse	GeneralResponseType	The Project Resources of the project.
RelationshipResponse	GeneralResponseType	The Relationships of the project.
RiskResponse	GeneralResponseType	The risk responses of the project.



ActivityRiskResponse	CustomResponseType	The activity risk responses of the project.
RiskImpactResponse	CustomResponseType	The risk impact responses of the project.
RiskResponsePlanResponse	GeneralResponseType	The risk response plans of the project.
RiskResponseActionResponse	GeneralResponseType	The risk response actions of the project.
RiskResponseActionImpactResponse	CustomResponseType	The risk response action impacts of the project.
ActivityStepResponse	GeneralResponseType	The activity steps associated with each activity in a project.
LeanTaskResponse	GeneralResponseType	The tasks associated with each activity in a project integrated with the Oracle Primavera Cloud Tasks app.
DeleteUnreferencedResponse	DeleteUnreferencedResponseType	The delete unreferenced items of a project.

## UpdateResource Operation

Description: Updates the Resource data of the P6 EPPM project.

**Service:** *SyncServiceV1 Service (on page 1042)*

Style: Document/literal wrapped

Input:

Message: UpdateResource

Elements:

Field	Type	Description
Resource	ResourceType	The resources in P6 EPPM.
ResourceRate	ResourceRateType	The resource rate of the resource.

Output:

Message: UpdateResourceResponse

Elements: An UpdateResourceResponse element that contains the following fields:

Field	Type	Description
ResourceResponse	GeneralResponseType	The resources in P6 EPPM.
ResourceRateResponse	GeneralResponseType	The resource rate of the resource.

## UpdateGlobalObjects Operation

Description: Updates the global objects.

**Service:** *SyncServiceV1 Service (on page 1042)*

Style: Document/literal wrapped

Input:

Message: UpdateGlobalObjects

Elements:

Field	Type	Description
RequestSettings	UpdateGlobalRequestSettings Type	The Settings applicable while updating Global Objects.

GlobalPreferences	GlobalPreferencesType	The Global Preferences Object of P6 EPPM.
UnitOfMeasure	UnitOfMeasureType	The Unit of Measure Object of P6 EPPM.
CostAccount	CostAccountType	The Cost Account Object of P6 EPPM.
Currency	CurrencyType	The Currency Object of P6 EPPM.
UDFType	UDFTypeType	The UDF Types of P6 EPPM.
ExpenseCategory	ExpenseCategoryType	The Expense Category object of P6 EPPM.
NotebookTopic	NotebookTopicType	The Notebook Topic Object of P6 EPPM.
WBSCategory	WBSCategoryType	The WBS Category Object of P6 EPPM.
Calendar	CalendarType	The Calendar Object of P6 EPPM.
Location	LocationType	The Location Object of P6 EPPM.
ProjectCodeType	ProjectCodeTypeType	The Project Code Type Object of P6 EPPM.
ProjectCode	ProjectCodeType	The Project Code Object of P6 EPPM.
ResourceCodeType	ResourceCodeTypeType	The Resource Code Type Object of P6 EPPM.
ResourceCode	ResourceCodeType	The Resource Code Object of P6 EPPM.
ResourceCurve	ResourceCurveType	The Resource Curve Object of P6 EPPM.

Role	RoleType	The Role Object of P6 EPPM.
RoleCodeType	RoleCodeTypeType	The Role Code Type Object of P6 EPPM.
RoleCode	RoleCodeType	The Role Code Object of P6 EPPM.
ResourceAssignmentCode	ResourceAssignmentCodeType	The Assignment Code Object of P6 EPPM.
ResourceAssignmentCodeType	ResourceAssignmentCodeTypeType	The Assignment Code Type Object of P6 EPPM.
RoleRate	RoleRateType	The RoleRate of P6 EPPM.
Resource	ResourceType	The Resource Object of P6 EPPM.
ResourceRate	ResourceRateType	The Resource Rate Object of a resource in P6 EPPM.
EPS	EPSType	The EPS Object of P6 EPPM.
ActivityCodeType	ActivityCodeTypeType	The Activity Code Type Object in P6 EPPM.
ActivityCode	ActivityCodeType	The Activity Code Object of P6 EPPM.
FinancialPeriod	FinancialPeriodType	The Financial Period Object of P6 EPPM.
ResourceRole	ResourceRoleType	The Resource Role Objects in P6 EPPM.
RiskThreshold	RiskThresholdType	The Risk Threshold Objects in P6 EPPM.

RiskThresholdLevel	RiskThresholdLevelType	The Risk Threshold Level Objects of P6 EPPM.
RiskMatrix	RiskMatrixType	The Risk Matrix Object of P6 EPPM.
RiskMatrixScore	RiskMatrixScoreType	The Risk Matrix Score Object of P6 EPPM.
RiskMatrixThreshold	RiskMatrixThresholdType	The Risk Matrix Threshold Object of P6 EPPM.
BaselineType	BaselineTypeType	The Baseline Type Object of P6 EPPM.

## Output:

Message: UpdateGlobalObjectsResponse

Elements: An UpdateGlobalObjectsResponse element that contains the following fields:

Field	Type	Description
GlobalPreferencesResponse	GlobalPreferencesResponseType	
UnitOfMeasureResponse	GeneralResponseType	The response type the service returns for Unit Of Measure objects.
CostAccountResponse	GeneralResponseType	The response type the service returns for Cost Account objects.
CurrencyResponse	GeneralResponseType	The response type the service returns for Currency Response objects.

CostAccountResponse	GeneralResponseType	The response type the service returns for Cost Account objects.
CurrencyResponse	GeneralResponseType	The response type the service returns for Currency objects.
UDFTypeResponse	GeneralResponseType	The response type the service returns for UDF Type objects.
ExpenseCategoryResponse	GeneralResponseType	The response type the service returns for Expense Category objects.
NotebookTopicResponse	GeneralResponseType	The response type the service returns for Notebook Topic objects.
WBSCategoryResponse	GeneralResponseType	The response type the service returns for WBS Category objects.
CalendarResponse	GeneralResponseType	The response type the service returns for Calendar objects.
LocationResponse	GeneralResponseType	The response type the service returns for Location objects.
ProjectCodeTypeResponse	GeneralResponseType	The response type the service returns for Project Code Type objects.
ProjectCodeResponse	GeneralResponseType	The response type the service returns for Project Code objects.

ResourceCodeTypeResponse	GeneralResponseType	The response type the service returns for Resource Code Type objects.
ResourceCodeResponse	GeneralResponseType	The response type the service returns for Resource Code objects.
RoleResponse	GeneralResponseType	The response type the service returns for Role objects.
RoleCodeTypeResponse	GeneralResponseType	The response type the service returns for Role Code Type objects.
RoleCodeResponse	GeneralResponseType	The response type the service returns for Role Code objects.
ResourceAssignmentCodeResponse	GeneralResponseType	The response type the service returns for Assignment Code objects.
ResourceAssignmentCodeTypeResponse	GeneralResponseType	The response type the service returns for Assignment Code Type objects.
RoleRateResponse	GeneralResponseType	The response type the service returns for Role Rate objects.
ResourceResponse	GeneralResponseType	The response type the service returns for Resource objects.
ResourceCurveResponse	GeneralResponseType	The response type the service returns for Resource Curve objects.

ResourceRateResponse	GeneralResponseType	The response type the service returns for Resource Rate objects.
ResourceRoleResponse	GeneralResponseType	The response type the service returns for Resource Role objects.
EPSResponse	GeneralResponseType	The response type the service returns for EPS objects.
ActivityCodeTypeResponse	GeneralResponseType	The response type the service returns for Activity Code Type objects.
ActivityCodeResponse	GeneralResponseType	The response type the service returns for Activity Code objects.
FinancialPeriodResponse	GeneralResponseType	The response type the service returns for Financial Period objects.
BaselineTypeResponse	GeneralResponseType	The response type the service returns for Baseline Type objects.
RiskThresholdResponse	GeneralResponseType	The response type the service returns for Risk Threshold objects.
RiskThresholdLevelResponse	GeneralResponseType	The response type the service returns for Risk Threshold Level objects.



RiskMatrixResponse	GeneralResponseType	The response type the service returns for Risk Matrix objects.
RiskMatrixScoreResponse	GeneralResponseType	The response type the service returns for Risk Matrix Score objects.
RiskMatrixThresholdResponse	GeneralResponseType	The response type the service returns for Risk Matrix Threshold objects.

## ReadGlobalObjects Operation

Description: Reads global objects.

**Service:** *SyncServiceV1 Service (on page 1042)*

Style: Document/literal wrapped

Input:

Message: ReadGlobalObjects

Elements:

Field	Type	Description
RequestSettings	ReadGlobalRequestSettingsType	The settings for a ReadGlobalObjects request.
GlobalPreferences	ReadGlobalPreferencesOption	The global filter criteria and columns read during a ReadGlobalObjects request.

UnitOfMeasure	ReadUnitOfMeasureOption	The filter criteria and columns for Unit of Measure objects.
CostAccount	ReadCostAccountOption	The filter criteria and columns for Cost Account objects.
Currency	ReadCurrencyOption	The filter criteria and columns for Currency objects.
UDFType	ReadUDFOption	The filter criteria and columns for UDF Type objects.
ExpenseCategory	ReadExpenseCategoryOption	The filter criteria and columns for Expense Category objects.
NotebookTopic	ReadNotebookTopicOption	The filter criteria and columns for Notebook Topic objects.
WBSCategory	ReadWBSCategoryOption	The filter criteria and columns for WBS Category objects.
Calendar	ReadCalendarOption	The filter criteria and columns for Calendar objects.
Location	ReadLocationOption	The filter criteria and columns for Location objects.
ProjectCodeType	ReadProjectCodeTypeOption	The filter criteria and columns for Project Code Type objects.

ProjectCode	ReadProjectCodeOption	The filter criteria and columns for Project Code objects.
ResourceCodeType	ReadResourceCodeTypeOption	The filter criteria and columns for Resource Code Type objects.
ResourceCode	ReadResourceCodeOption	The filter criteria and columns for Resource Code objects.
RoleCodeType	ReadRoleCodeTypeOption	The filter criteria and columns for Role Code Type objects.
RoleCode	ReadRoleCodeOption	The filter criteria and columns for Role Code objects.
ResourceAssignmentCode	ResourceAssignmentCodeType	The filter criteria and columns for Assignment Code objects.
ResourceAssignmentCodeType	ResourceAssignmentCodeType	The filter criteria and columns for Assignment Code Type objects.
ResourceCurve	ResourceCurveType	The filter criteria and columns for Resource Curve objects.
Role	RoleType	The filter criteria and columns for Role objects.
RoleRate	RoleRateType	The filter criteria and columns for Role Rate objects.

RoleLimit	RoleLimitType	The filter criteria and columns for Role Limit objects.
Resource	ResourceType	The filter criteria and columns for Resource objects.
ResourceRate	ResourceRateType	The filter criteria and columns for Resource Rate objects.
EPS	EPSType	The filter criteria and columns for EPS objects.
ActivityCodeType	ActivityCodeTypeType	The filter criteria and columns for Activity Code Type objects.
ActivityCode	ActivityCodeType	The filter criteria and columns for Activity Code objects.
FinancialPeriod	FinancialPeriodType	The filter criteria and columns for Financial Period objects.
ResourceRole	ReadResourceRoleOption	The filter criteria and columns for Resource Role objects.
RiskThreshold	RiskThresholdType	The filter criteria and columns for Risk Threshold objects.
RiskThresholdLevel	RiskThresholdLevelType	The filter criteria and columns for Risk Threshold Level objects.

RiskMatrix	RiskMatrixType	The filter criteria and columns for Risk Matrix objects.
RiskMatrixScore	RiskMatrixScoreType	The filter criteria and columns for Risk Matrix Score objects.
RiskMatrixThreshold	RiskMatrixThresholdType	The filter criteria and columns for Risk Matrix Threshold objects.
BaselineType	BaselineTypeType	The filter criteria and columns for Baseline Type objects.

## Output:

Message: ReadGlobalObjectsResponse

Elements: A ReadGlobalObjectsResponse element that contains the following fields:

<b>Field</b>	<b>Type</b>	<b>Description</b>
GlobalPreferences	GlobalPreferencesType	
UnitOfMeasure	UnitOfMeasureType	The response type the service returns for Unit Of Measure objects.
CostAccount	CostAccountType	The response type the service returns for Cost Account objects.

Currency	CurrencyType	The response type the service returns for Currency Response objects.
UDFType	UDFTypeType	The response type the service returns for UDF Type objects.
ExpenseCategory	ExpenseCategoryType	The response type the service returns for Expense Category objects.
NotebookTopic	NotebookTopicType	The response type the service returns for Notebook Topic objects.
WBSCategory	WBSCategoryType	The response type the service returns for WBS Category objects.
Calendar	CalendarType	The response type the service returns for Calendar objects.
Location	LocationType	The response type the service returns for Location objects.
ProjectCodeType	ProjectCodeTypeType	The response type the service returns for Project Code Type objects.
ProjectCode	ProjectCodeType	The response type the service returns for Project Code objects.

ResourceCodeType	ResourceCodeTypeType	The response type the service returns for Resource Code Type objects.
ResourceCode	ResourceCodeType	The response type the service returns for Resource Code objects.
ResourceCurve	ResourceCurveType	The response type the service returns for Resource Curve objects.
Role	RoleType	The response type the service returns for Role objects.
RoleCodeType	RoleCodeTypeType	The response type the service returns for Role Code Type objects.
RoleCode	RoleCodeType	The response type the service returns for Role Code objects.
ResourceAssignmentCode	ResourceAssignmentCodeType	The response type the service returns for Assignment Code objects.
ResourceAssignmentCodeType	ResourceAssignmentCodeType	The response type the service returns for Assignment Code Type objects.
RoleRate	RoleRateType	The response type the service returns for Role Limit objects.

RoleLimit	RoleLimitType	The response type the service returns for Role Rate objects.
Resource	ResourceType	The response type the service returns for Resource objects.
ResourceRate	ResourceRateType	The response type the service returns for Resource Rate objects.
EPS	EPSType	The response type the service returns for EPS objects.
ActivityCodeType	ActivityCodeTypeType	The response type the service returns for Activity Code Type objects.
ActivityCode	ActivityCodeType	The response type the service returns for Activity Code objects.
FinancialPeriod	FinancialPeriodType	The response type the service returns for Financial Period objects.
ResourceRole	ResourceRoleType	The response type the service returns for Resource Role objects.
RiskThreshold	RiskThresholdType	The response type the service returns for Risk Threshold objects.



RiskThresholdLevel	RiskThresholdLevelType	The response type the service returns for Risk Threshold Level objects.
RiskMatrix	RiskMatrixType	The response type the service returns for Risk Matrix objects.
RiskMatrixScore	RiskMatrixScoreType	The response type the service returns for Risk Matrix Score objects.
RiskMatrixThreshold	RiskMatrixThresholdType	The response type the service returns for Risk Matrix Threshold objects.
BaselineType	BaselineTypeType	The response type the service returns for Baseline Type objects.

## Timesheet Services

### OverheadCode Service

#### Operations:

- CreateOverheadCodes Operation*** (on page 1074)
- ReadOverheadCodes Operation*** (on page 1074)
- UpdateOverheadCodes Operation*** (on page 1075)
- DeleteOverheadCodes Operation*** (on page 1075)
- GetFieldLengthOverheadCode Operation*** (on page 1075)

#### WSDL: [OverheadCode.wsdl](#)

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/OverheadCode/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/OverheadCodeService?wsdl  
https://<hostname>:<port number>/p6ws/services/OverheadCodeService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.overheadcode.OverheadCodeService

**Description:**

Overhead codes are used to log timesheet hours for activities, which are not associated with any current projects.

### CreateOverheadCodes Operation

Description: Creates multiple OverheadCode objects in the database. You can create up to 1000 OverheadCode objects with a single call.

**Service:** *OverheadCode Service (on page 1073)*

Style: Document/literal wrapped

Input:

Message: CreateOverheadCodes

Elements: OverheadCode elements that contain **OverheadCode Fields** (on page 1076) fields

Required fields:

- ▶ Name
- ▶ Description

Output:

Message: CreateOverheadCodesResponse

Output: Zero to many ObjectID elements

### ReadOverheadCodes Operation

Description: Reads OverheadCode objects from the database.

**Service:** *OverheadCode Service (on page 1073)*

Style: Document/literal wrapped

Input:

Message: ReadOverheadCodes

Elements: One to many field names from the **OverheadCode Fields** (on page 1076) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadOverheadCodesResponse

Output: Zero to many OverheadCode elements that contain OverheadCode fields.

### UpdateOverheadCodes Operation

Description: Updates multiple OverheadCode objects in the database. You can update up to 1000 OverheadCode objects with a single call.

**Service:** *OverheadCode Service (on page 1073)*

Style: Document/literal wrapped

Input:

Message: UpdateOverheadCodes

Elements: OverheadCode elements that contain **OverheadCode Fields** (on page 1076) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateOverheadCodesResponse

Output: boolean

### DeleteOverheadCodes Operation

Description: Deletes multiple OverheadCode objects in the database. You can delete up to 1000 OverheadCode objects with a single call.

**Service:** *OverheadCode Service (on page 1073)*

Style: Document/literal wrapped

Input:

Message: DeleteOverheadCodes

Elements: One to many ObjectId elements

Output:

Message: DeleteOverheadCodesResponse

Output: boolean

### GetFieldLengthOverheadCode Operation

Description: Returns length of variable character fields for a BO.

**Service: OverheadCode Service (on page 1073)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthOverheadCode

Elements: FieldLength

Output:

Message: GetFieldLengthOverheadCode

Elements: One to many FieldLengthOverheadCodes.

**OverheadCode Fields**

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this nonworktype was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this nonworktype.
Description	string restricted to maxLength(40)		X	The description of the overhead code.
LastUpdate Date	dateTime	X	X	The date this nonworktype was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this nonworktype.
Name	string restricted to maxLength(32)		X	The name of the overhead code.
ObjectId	int		X	The unique ID generated by the system.

Sequence Number	int		X	The sequence number for sorting.
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## ResourceHour Service

### Operations:

**CreateResourceHours Operation** (on page 1077)

**ReadResourceHours Operation** (on page 1078)

**UpdateResourceHours Operation** (on page 1078)

**DeleteResourceHours Operation** (on page 1079)

**GetFieldLengthResourceHour Operation** (on page 1079)

### WSDL: ResourceHour.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceHour/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceHourService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ResourceHourService?wsdl>

### Java Client Stub Class:

com.primavera.ws.p6.resourcehour.ResourceHourService

### Description:

A resource hour corresponds to an entry on a timesheet edited in Timesheets. Resource hours may not be exported directly by the XMLExporter, but all child resource hours are exported automatically when exporting timesheets. Resource hours are read only.

## CreateResourceHours Operation

Description: Creates multiple ResourceHour objects in the database. You can create up to 1000 ResourceHour objects with a single call.

**Service:** *ResourceHour Service* (on page 1077)

Style: Document/literal wrapped

Input:

Message: CreateResourceHours

Elements: ResourceHour elements that contain **ResourceHour Fields** (on page 1079) fields

Required fields: The following fields are required when creating the ResourceHour object:

- ▶ OverheadCodeObjectId|ResourceAssignmentObjectId
- ▶ ResourceObjectId
- ▶ TimesheetPeriodObjectId

Output:

Message: CreateResourceHoursResponse

Output: Zero to many ObjectIds

### ReadResourceHours Operation

Description: Reads ResourceHour objects from the database.

**Service:** *ResourceHour Service (on page 1077)*

Style: Document/literal wrapped

Input:

Message: ReadResourceHours

Elements: One to many fields from the **ResourceHour Fields** (on page 1079) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceHoursResponse

Output: Zero to many ResourceHour elements that contain ResourceHour fields.

### UpdateResourceHours Operation

Description: Updates multiple ResourceHour objects in the database. You can update up to 1000 ResourceHour objects with a single call.

**Service:** *ResourceHour Service (on page 1077)*

Style: Document/literal wrapped

Input:

Message: UpdateResourceHours

Elements: ResourceHour elements that contain **ResourceHour Fields** (on page 1079) fields

Output:

Message: UpdateResourceHoursResponse

Output: boolean

### DeleteResourceHours Operation

Description: Deletes multiple ResourceHour objects in the database. You can delete up to 1000 ResourceHour objects with a single call.

**Service:** *ResourceHour Service (on page 1077)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceHours

Elements: One to many ObjectIds

Output:

Message: DeleteResourceHoursResponse

Output: boolean

### GetFieldLengthResourceHour Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceHour Service (on page 1077)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceHour

Elements: FieldLength

Output:

Message: GetFieldLengthResourceHourResponse

Elements: One to many FieldLengthResourceHours.

### ResourceHour Fields

Field	Type	Read Only	Filterable Orderable	Description
ActivityObjectId	int	X	X	The unique ID of the activity to which the resource is assigned.
ActivityTimesheetLinkFlag	boolean		X	the value which indicates if the record is a real timesheet entry (false) or simply a

				placeholder for a timesheet entry (true).
ApprovedHours	double		X	The number of hours, approved.
ApprovedOvertimeHours	double		X	The number of overtime hours, approved.
CreateDate	dateTime	X	X	The date this data was created.
CreateUser	string	X	X	The name of the user that created this data.
Date	dateTime		X	The date to which the hours apply.
IsBaseline	boolean	X	X	The boolean value indicating if this business object is related to a Project or Baseline
IsTemplate	boolean	X	X	The boolean value indicating if this business object is related to a template Project.
LastUpdateDate	dateTime	X	X	The date this data was last updated.
LastUpdateUser	string	X	X	The name of the user that last updated this data.
ObjectId	int		X	The unique ID generated by the system.
OverheadCodeName	string restricted to maxLength(3)	X	X	The name of the overhead code.



	2)			
OverheadCodeObjectld	int		X	The unique ID of the overhead code, if the hours are for an overhead activity.
Projectld	string restricted to maxLength(40)	X	X	The short code that uniquely identifies the project.
ProjectName	string restricted to maxLength(100)	X	X	The name of the associated project.
ProjectObjectld	int		X	The unique ID of the associated project.
ResourceAssignmentObjectld	int		X	The unique ID of the associated resource assignment.
ResourceId	string restricted to maxLength(255)	X	X	The short code that uniquely identifies the resource.
ResourceIntegratedType	string restricted to "ERP', 'Fusion', 'Gateway', 'PrimaveraCloudScope'	X	X	The flag indicating whether the resource is integrated with an Enterprise Resource Planning (ERP) system. 'Fusion' indicates the resource is integrated with Oracle Fusion. 'ERP' indicates the resource is integrated with another ERP

				system. 'Gateway' indicates the resource is integrated with Oracle Primavera Gateway.
ResourceName	string restricted to maxLength(255)	X	X	The name of the resource.
ResourceObjectID	int		X	The unique ID of the associated resource.
Status	string restricted to 'Submitted' 'Approved' 'Resource Manager Approved' 'Project Manager Approved' 'Active' 'Rejected' 'Resubmitted' 'Reopened' 'Submitted for RM' 'Resubmitted for RM'		X	The approval level, when timesheets require approval: 'Submitted', 'Approved', 'Resource Manager Approved', 'Project Manager Approved', 'Active', or 'Rejected'.
TimesheetPeriodObjectID	int		X	The unique ID of the associated timesheet.
TimesheetStatusDate	dateTime	X	X	The status date of the associated timesheet.
UnapprovedHours	double		X	The actual non-overtime units submitted by

				the resource on the activity. These units remain submitted until the timesheet is approved.
UnapprovedOvertimeHours	double		X	The actual overtime units submitted by the resource on the activity. These units remain submitted until the timesheet is approved.
WBSObjectID	int	X		The unique ID of the WBS for the activity.

## TimesheetAudit Service

### Operations:

***ReadTimesheetAudits Operation*** (on page 1084)

***GetFieldLengthTimesheetAudit Operation*** (on page 1084)

### WSDL: TimesheetAudit.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/TimesheetAudit/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/TimesheetAuditService?wsdl>

<https://<hostname>:<port number>/p6ws/services/TimesheetAuditService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.timesheetaudit.TimesheetAuditService`

### Description:

The timesheet audit class facilitates reading the timesheet audit records, added to the PM database as triggered by user activity, one record at a time. Fields that can be loaded on the TimesheetAudit object include information about the approval and rejection history (e.g., reviewers and review dates), information about the timesheets (e.g., number of overhead, overtime, and project hours), and information about the audit (e.g., the date the timesheet audit was created). Timesheet audits are readonly.

### ReadTimesheetAudits Operation

Description: Reads TimesheetAudit objects from the database.

**Service:** *TimesheetAudit Service (on page 1083)*

Style: Document/literal wrapped

Input:

Message: ReadTimesheetAudits

Elements: One to many field names from the ***TimesheetAudit Fields*** (on page 1084) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadTimesheetAuditsResponse

Output: Zero to many TimesheetAudit elements that contain TimesheetAudit fields.

### GetFieldLengthTimesheetAudit Operation

Description: Returns length of variable character fields for a BO.

**Service:** *TimesheetAudit Service (on page 1083)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthTimesheetAudit

Elements: FieldLength

Output:

Message: GetFieldLengthTimesheetAuditResponse

Elements: One to many FieldLengthTimesheetAudits.

### TimesheetAudit Fields

Field	Type	Read Only	Filterable Orderable	Description
ApproverUserName	string	X	X	The user name of the approver.
ApproverUserO	int	X	X	The unique user

bjectId				ID of the approver.
AuditDate	dateTime	X	X	The date this timesheet audit was created.
ObjectId	int	X	X	The unique ID generated by the system.
OverheadHours	double	X	X	The total overhead hours for the timesheet.
OverheadOvertimeHours	double	X	X	The total overhead overtime hours for the timesheet.
PendingOverheadHours	double	X	X	The total pending overhead hours for the timesheet.
PendingOverheadOvertimeHours	double	X	X	The total pending overhead overtime hours for the timesheet.
PendingProjectHours	double	X	X	The total pending project hours for the timesheet.
PendingProjectOvertimeHours	double	X	X	The total pending project overtime hours for the timesheet.
ProjectHours	double	X	X	The total project hours for the timesheet.
ProjectId	string	X	X	The short code that uniquely identifies the project.
ProjectObjectId	int	X	X	The unique ID of the associated project.
ProjectOvertimeHours	double	X	X	The total project overtime hours

				for the timesheet.
ResourceId	string	X	X	The short code that uniquely identifies the resource.
ResourceName	string	X	X	The name of the resource.
ResourceObjectId	int	X	X	The unique ID of the associated resource.
TimesheetActivityStatus	string restricted to " 'Submitted' 'Approved' 'Resource Manager Approved' 'Project Manager Approved' 'Active' 'Rejected' 'Resubmitted' 'Reopened' 'Submitted for RM' 'Resubmitted for RM'	X	X	The status of the timesheet activity, the value of which will depend on who approved or rejected it. Valid values are 'Submitted', 'Approved', 'Resource Manager Approved', 'Project Manager Approved', and 'Rejected'.
TimesheetApprovingAs	string restricted to " 'Project Manager' 'Resource Manager' 'Project Manager Delegate' 'Resource Manager Delegate'	X	X	The role of the timesheet approver. Valid values are 'Project Manager', 'Resource Manager', 'Project Manager Delegate', and 'Resource Manager Delegate'.

TimesheetPeriodEndDate	dateTime	X	X	The timesheet period end date.
TimesheetPeriodObjectId	int	X	X	The unique ID of the timesheet period.
TimesheetPeriodStartDate	dateTime	X	X	The timesheet period start date.
TimesheetStatus	string restricted to 'Submitted' 'Approved' 'Resource Manager Approved' 'Project Manager Approved' 'Active' 'Rejected' 'Not Started' 'Resubmitted' 'Reopened' 'Submitted for RM' 'Resubmitted for RM'	X	X	The status of the timesheet. Valid values are 'Submitted', 'Approved', 'Resource Manager Approved', 'Project Manager Approved', and 'Rejected'.

## TimesheetDelegate Service

### Operations:

***ReadTimesheetDelegates Operation*** (on page 1088)

***GetFieldLengthTimesheetDelegate Operation*** (on page 1088)

### WSDL: TimesheetDelegate.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/TimesheetDelegate/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/TimesheetDelegateService?wsdl>  
<https://<hostname>:<port number>/p6ws/services/TimesheetDelegateService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.timesheetdelegate.TimesheetDelegateService`

**Description:**

Timesheet delegates provide resource and project managers the ability to assign a user to process their timesheets as a delegate. After selecting a delegate for their resources or projects, the resource or project manager can activate and disable the delegate's approval rights at any time. Timesheet delegates for resource managers can review timesheets for resources to whom the resource manager has been assigned as a timesheet approval manager. Timesheet delegates for a project manager can review timesheets for resources who are assigned to activities within the project(s) for which the project manager has been granted approval rights. A project manager can delegate approval rights to different users for each project.

TimesheetDelegates are readonly.

### ReadTimesheetDelegates Operation

Description: Reads TimesheetDelegate objects from the database.

**Service:** *TimesheetDelegate Service* (on page 1087)

Style: Document/literal wrapped

Input:

Message: ReadTimesheetDelegates

Elements: One to many field names from the ***TimesheetDelegate Fields*** (on page 1089) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadTimesheetDelegatesResponse

Output: Zero to many TimesheetDelegate elements that contain TimesheetDelegate fields.

### GetFieldLengthTimesheetDelegate Operation

Description: Returns length of variable character fields for a BO.



**Service: TimesheetDelegate Service (on page 1087)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthTimesheetDelegate

Elements: FieldLength

Output:

Message: GetFieldLengthTimesheetDelegateResponse

Elements: One to many FieldLengthTimesheetDelegates.

**TimesheetDelegate Fields**

Field	Type	Read Only	Filterable Orderable	Description
ActiveFlag	boolean	X	X	The flag indicating whether this delegate is active.
ApproverUserName	string restricted to maxLength(32)	X	X	The approver user's login name.
ApproverUserObjectId	int	X	X	The unique ID of the approver user.
CreateDate	dateTime	X	X	The date this timesheet delegate was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this timesheet delegate.
DelegateUserEmailAddress	string restricted to maxLength(120)	X	X	The delegate user's email address.
DelegateUserName	string restricted to maxLength(255)	X	X	The delegate user's login name.

DelegateUser ObjectId	int	X	X	The unique ID of the delegate user.
LastUpdateDate	dateTime	X	X	The date this timesheet delegate was last updated.
LastUpdateUser	string	X	X	The name of the user that last updated this timesheet delegate.
ObjectId	int	X	X	The unique ID generated by the system.
ProjectObjectId	int	X	X	The unique ID of the associated project.

## TimesheetPeriod Service

### Operations:

**CreateTimesheetPeriods Operation** (on page 1091)

**ReadTimesheetPeriods Operation** (on page 1091)

**UpdateTimesheetPeriods Operation** (on page 1092)

**DeleteTimesheetPeriods Operation** (on page 1092)

**GetFieldLengthTimesheetPeriod Operation** (on page 1092)

### WSDL: TimesheetPeriod.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/TimesheetPeriod/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/TimesheetPeriodService?wsdl>

<https://<hostname>:<port number>/p6ws/services/TimesheetPeriodService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.timesheetperiod.TimesheetPeriodService`

**Description:**

Timesheet periods indicate both the start date and duration of a group of assigned timesheets.

**CreateTimesheetPeriods Operation**

Description: Creates TimesheetPeriod objects in the database.

**Service:** *TimesheetPeriod Service (on page 1090)*

Style: Document/literal wrapped

Input:

Message: CreateTimesheetPeriods

Elements: TimesheetPeriod elements that contain ***TimesheetPeriod Fields*** (on page 1093) fields.

Required fields: The following fields are required when creating the TimesheetPeriod object:

- ▶ ObjectID
- ▶ StartDate
- ▶ EndDate

Output:

Message: CreateTimesheetPeriodsResponse

Output: Zero to many ObjectID elements

**ReadTimesheetPeriods Operation**

Description: Reads TimesheetPeriod objects from the database.

**Service:** *TimesheetPeriod Service (on page 1090)*

Style: Document/literal wrapped

Input:

Message: ReadTimesheetPeriods

Elements: One to many field names from the ***TimesheetPeriod Fields*** (on page 1093) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadTimesheetPeriodsResponse

Output: Zero to many TimesheetPeriod elements that contain TimesheetPeriod fields.

## UpdateTimesheetPeriods Operation

Description: Updates TimesheetPeriod objects in the database.

**Service:** *TimesheetPeriod Service* (on page 1090)

Style: Document/literal wrapped

Input:

Message: UpdateTimesheetPeriods

Elements: TimesheetPeriod elements that contain ***TimesheetPeriod Fields*** (on page 1093) fields.

Required fields: The following fields are required when creating the TimesheetPeriod object:

- ▶ ObjectId
- ▶ StartDate
- ▶ EndDate

Output:

Message: UpdateTimesheetPeriodsResponse

Output: boolean

## DeleteTimesheetPeriods Operation

Description: Deletes TimesheetPeriod objects from the database.

**Service:** *TimesheetPeriod Service* (on page 1090)

Style: Document/literal wrapped

Input:

Message: DeleteTimesheetPeriods

Elements: One to many ObjectId elements

Output:

Message: DeleteTimesheetPeriodsResponse

Output: boolean

## GetFieldLengthTimesheetPeriod Operation

Description: Returns length of variable character fields for a BO.

**Service:** *TimesheetPeriod Service* (on page 1090)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthTimesheetPeriod

Elements: FieldLength

Output:

Message: GetFieldLengthTimesheetPeriodResponse

Elements: One to many FieldLengthTimesheetPeriods.

### TimesheetPeriod Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this timesheet period was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this timesheet period.
EndDate	dateTime		X	The timesheet period end date.
LastUpdate Date	dateTime	X	X	The date this timesheet period was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this timesheet period.
ObjectId	int		X	The unique ID generated by the system.
StartDate	dateTime		X	The timesheet period start date.

### Timesheet Service

#### Operations:

**CreateTimesheets Operation** (on page 1094)

**ReadTimesheets Operation** (on page 1095)

**UpdateTimesheets Operation** (on page 1095)

**DeleteTimesheets Operation** (on page 1095)

***GetFieldLengthTimesheet Operation*** (on page 1096)

**WSDL: Timesheet.wsdl**

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/Timesheet/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/TimesheetService?wsdl>

<https://<hostname>:<port number>/p6ws/services/TimesheetService?wsdl>

**Java Client Stub Class:**

`com.primavera.ws.p6.timesheet.TimesheetService`

**Description:**

Timesheets are used to allow resources to enter status. Timesheets are read only in the Integration API.

**Description:**

Timesheets are used to allow resources to enter status.

This business object has a multi-part object ID; its object ID is a combination of its timesheet period object ID and its resource object ID.

## CreateTimesheets Operation

Description: Creates multiple Timesheet objects in the database. You can create up to 1000 Timesheet objects with a single call.

**Service: *Timesheet Service* (on page 1093)**

Style: Document/literal wrapped

Input:

Message: CreateTimesheets

Elements: Timesheet elements that contain ***Timesheet Fields*** (on page 1096) fields

Required fields:

- ▶ ResourceObjectID
- ▶ TimesheetPeriodObjectID

Output:

Message: CreateTimesheetsResponse

Output: Zero to many ObjectIDs

## ReadTimesheets Operation

Description: Reads Timesheet objects from the database.

**Service:** *Timesheet Service* (on page 1093)

Style: Document/literal wrapped

Input:

Message: ReadTimesheets

Elements: One to many fields from the ***Timesheet Fields*** (on page 1096) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadTimesheetsResponse

Output: Zero to many Timesheet elements that contain Timesheet fields.

## UpdateTimesheets Operation

Description: Updates multiple Timesheet objects in the database. You can update up to 1000 Timesheet objects with a single call.

**Service:** *Timesheet Service* (on page 1093)

Style: Document/literal wrapped

Input:

Message: UpdateTimesheets

Elements: Timesheet elements that contain ***Timesheet Fields*** (on page 1096) fields

Output:

Message: UpdateTimesheetsResponse

Output: boolean

## DeleteTimesheets Operation

Description: Deletes multiple Timesheet objects in the database. You can delete up to 1000 Timesheet objects with a single call.

**Service:** *Timesheet Service* (on page 1093)

Style: Document/literal wrapped

Input:

Message: DeleteTimesheets

Elements: One to many ObjectIds

Output:

Message: DeleteTimesheetsResponse

Output: boolean

### GetFieldLengthTimesheet Operation

Description: Returns length of variable character fields for a BO.

**Service:** *Timesheet Service* (on page 1093)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthLengthTimesheet

Elements: FieldLength

Output:

Message: GetFieldLengthTimesheetResponse

Elements: One to many FieldLengthTimesheets.

### Timesheet Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this timesheet was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this timesheet.
IsDaily	boolean		X	The flag that identifies whether timesheet users enter hours daily or by entire timesheet reporting period.
LastReceivedDate	dateTime		X	The last date on which the timesheet was submitted by the resource.
LastUpdateDate	dateTime	X	X	The date this timesheet was last



				updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this timesheet.
Notes	string			The notes associated with the timesheet.
ResourceId	string restricted to maxLength(20)	X	X	The short code that uniquely identifies the resource.
ResourceName	string restricted to maxLength(100)	X	X	The name of the resource.
ResourceObjectId	int		X	The unique ID of the associated resource.
Status	string restricted to 'Submitted' 'Approved' 'Resource Manager Approved' 'Project Manager Approved' 'Active' 'Rejected' 'Not Started' 'Resubmitted' 'Reopened' 'Submitted for RM' 'Resubmitted for RM'		X	The current status of the timesheet: 'Submitted', 'Approved', 'Resource Manager Approved', 'Project Manager Approved', 'Active', or 'Rejected'.
StatusDate	dateTime		X	The date on which the status of the timesheet was last

				changed.
TimesheetPeriodObjectld	int		X	The unique ID of the timesheet period.

## User Services

### User Service

#### Operations:

- CreateUsers Operation** (on page 1099)
- ReadUsers Operation** (on page 1099)
- UpdateUsers Operation** (on page 1100)
- DeleteUserConsent Operation** (on page 1100)
- GetFieldLengthUser Operation** (on page 1100)
- ReadUserBaselines Operation** (on page 1101)
- UpdateUserBaselines Operation** (on page 1101)
- SetUserPassword Operation** (on page 1101)
- SetMailServerPassword Operation** (on page 1102)
- SetPrimaryBaselineProject Operation** (on page 1103)
- GetPrimaryBaselineProject Operation** (on page 1103)
- GetSecondaryBaselineProject Operation** (on page 1103)
- SetSecondaryBaselineProject Operation** (on page 1104)
- GetTertiaryBaselineProject Operation** (on page 1104)
- SetTertiaryBaselineProject Operation** (on page 1105)
- LoadUserFilteredActivities Operation** (on page 1105)
- LoadUserFilteredMilestoneActivities Operation** (on page 1106)
- ResetUserPreferences Operation** (on page 1107)

#### WSDL: User.wsdl

Primary Key Field: Objectld

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/User/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/UserService?wsdl>

<https://<hostname>:<port number>/p6ws/services/UserService?wsdl>

**Java Client Stub Class:**

com.primavera.ws.p6.user.UserService

**Description:**

The set of application users who are allowed to use the system. Each user is assigned a global security profile and project security profile.

Note that the Password and MailServerPassword fields are writable fields only; these fields may not be loaded from the database and are therefore not included in the AllFields array. A user may only change his own password, and only if the old password is specified. An administrator may change any user's password and does not have to specify the user's old password when doing so.

**CreateUsers Operation**

Description: Creates multiple User objects in the database. You can create up to 1000 User objects with a single call.

**Service:** *User Service* (on page 1098)

Style: Document/literal wrapped

Input:

Message: CreateUsers

Elements: User elements that contain **User Fields** (on page 1107) fields

Required fields: You must supply the Name field.

Output:

Message: CreateUsersResponse

Output: Zero to many ObjectId elements

**ReadUsers Operation**

Description: Reads User objects from the database.

**Service:** *User Service* (on page 1098)

Style: Document/literal wrapped

Input:

Message: ReadUsers

Elements: One to many field names from the **User Fields** (on page 1107) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadUsersResponse

Output: Zero to many User elements that contain User fields.

### UpdateUsers Operation

Description: Updates multiple User objects in the database. You can update up to 1000 User objects with a single call.

**Service:** *User Service (on page 1098)*

Style: Document/literal wrapped

Input:

Message: UpdateUsers

Elements: User elements that contain **User Fields** (on page 1107) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateUsersResponse

Output: boolean

### DeleteUserConsent Operation

Description: Deletes multiple UserConsent objects in the database.

**Service:** *UserConsent Service (on page 1151)*

Style: Document/literal wrapped

Input:

Message: DeleteUserConsent

Elements: One to many ObjectId elements

Output:

Message: DeleteUserConsentResponse

Output: boolean

### GetFieldLengthUser Operation

Description: Returns length of variable character fields for a BO.

**Service:** *User Service (on page 1098)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthUser

Elements: FieldLength

**Output:**

Message: GetFieldLengthUserResponse  
Elements: One to many FieldLengthUsers.

### ReadUserBaselines Operation

Description: Reads User objects from the database.

**Service:** *User Service (on page 1098)*

Style: Document/literal wrapped

**Input:**

Message: ReadUserBaselines  
Elements:

- ▶ One to one ProjectObjectId elements
- ▶ One to One fields from the **User Fields** (on page 1107) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

**Output:**

Message: ReadUserBaselinesResponse  
Output: Zero to Zero User elements that contain User fields.

### UpdateUserBaselines Operation

Description: Updates multiple User objects in the database. You can update up to 1000 User objects with a single call.

**Service:** *User Service (on page 1098)*

Style: Document/literal wrapped

**Input:**

Message: UpdateUserBaselines  
Elements: User elements that contain **User Fields** (on page 1107) fields.  
Required fields: The ObjectId must be specified.

**Output:**

Message: UpdateUserBaselinesResponse  
Output:

### SetUserPassword Operation

**Service:** User Service

**Style:** Document/literal wrapped

**Input:**

**Message:** SetUserPassword

**Elements:**

Field	Type	Description
UserObjectId	int	The unique identifier of the user.
OldPassword	string	The old password.
NewPassword	string	The new password.

Required fields

You must supply the UserObjectId and OldPassword fields when you use the SetUserPassword operation. If you are an Admin Superuser, the OldPassword field is not required.

**Output:**

Message: SetUserPasswordResponse

Elements: Success

## SetMailServerPassword Operation

**Service:** User Service

**Style:** Document/literal wrapped

**Input:**

**Message:** SetMailServerPassword

**Elements:**

Field	Type	Description
UserObjectId	int	The unique identifier of the user.
NewPassword	string	The new password.

Required fields

You must supply the both the UserObjectId and the NewPassword fields when you use the SetMailServerPassword operation.

Output:

Message: SetMailServerPasswordResponse

Elements: Success

### SetPrimaryBaselineProject Operation

Description: Sets a user's primary baseline to evaluate project progress.

**Service:** *User Service (on page 1098)*

Style: Document/literal wrapped

Input:

Message: SetPrimaryBaselineProjectRequest

Elements:

- ▶ UserObjectId
- ▶ ProjectObjectId
- ▶ PrimaryBaselineObjectId

Output:

Message: SetPrimaryBaselineProjectResponse

Output: boolean

### GetPrimaryBaselineProject Operation

Description: Gets the user's primary baseline for a project.

**Service:** *User Service (on page 1098)*

Style: Document/literal wrapped

Input:

Message: GetPrimaryBaselineProject

Elements:

- ▶ UserObjectId
- ▶ ProjectObjectid

Output:

Message: GetPrimaryBaselineProjectResponse

Output: PrimaryBaselineProjectId

### GetSecondaryBaselineProject Operation

Description: Gets the user's secondary baseline for a specified project. The Secondary Baseline fields must be populated in order to retrieve data.

**Service:** *User Service (on page 1098)*

Style: Document/literal wrapped

Input:

Message: GetSecondaryBaselineProject

Elements:

- ▶ UserObjectId
- ▶ ProjectObjectid

Output:

Message: GetSecondaryBaselineProjectResponse

Element: SecondaryBaselineProjectId

### SetSecondaryBaselineProject Operation

Description: Sets a user's secondary baseline project for a specific project.

**Service:** *User Service* (on page 1098)

Style: Document/literal wrapped

Input:

Message: SetSecondaryBaselineProject

Elements:

- ▶ UserObjectId
- ▶ ProjectObjectid
- ▶ SecondaryBaselineObjectid

Output:

Message: SetSecondaryBaselineProjectResponse

Element: Success

### GetTertiaryBaselineProject Operation

Description: Gets the user's tertiary baseline for a specified project. The Tertiary Baseline fields must be populated in order to retrieve data.

**Service:** *User Service* (on page 1098)

Style: Document/literal wrapped

Input:

Message: GetTertiaryBaselineProject

Elements:

- ▶ UserObjectId
- ▶ ProjectObjectid

Output:

Message: GetTertiaryBaselineProjectResponse

Element: TertiaryBaselineProjectId



## SetTertiaryBaselineProject Operation

Description: Sets a user's tertiary baseline for a specific project.

**Service:** *User Service* (on page 1098)

Style: Document/literal wrapped

Input:

Message: SetTertiaryBaselineProject

Elements:

- ▶ UserObjectId
- ▶ ProjectObjectId
- ▶ TertiaryBaselineObjectId

Output:

Message: SetTertiaryBaselineProjectResponse

Element: Success

## LoadUserFilteredActivities Operation

Description: Loads non-milestone activities that match filters on specified user.

**Service:** *User Service* (on page 1098).

Input:

Message: LoadUserFilteredActivities

Elements:

Name	Type	Description	Required
ObjectId	int	Unique identifier for the user.	Yes
Fields	string	One or more <b>User Fields</b> (on page 1107) from the User fields list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No

Output:

Message: LoadUserFilteredActivitiesResponse

Elements:

Name	Type	Description
ActivityObjectIds	string	Unique identifiers for the activities returned on operation success.

### LoadUserFilteredMilestoneActivities Operation

Description: Loads milestone activities that match filters set on a specified user.

**Service:** *User Service* (on page 1098)

Input:

Message: LoadUserFilteredMilestoneActivities

Elements:

Name	Type	Description	Required
ObjectId	int	Unique identifier for the user.	Yes
Fields	string	One or more <b>User Fields</b> (on page 1107) from the User fields list.	Yes
WhereClause	string	Optional clause used to filter results.	No
OrderBy	string	Optional clause used to specify the order in which results are returned.	No

Output:

Message: LoadUserFilteredMilestoneActivitiesResponse

Elements:

Name	Type	Description
------	------	-------------

ActivityObjectIds	string	Unique identifiers for milestone activities returned on operation success.
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### ResetUserPreferences Operation

Description: Resets a user's preferences.

**Service:** *User Service* (on page 1098)

Style: Document/literal wrapped

Input:

Message: ResetUserPreferences

Elements:

- ▶ UserObjectId

Required fields

You must supply the UserObjectId.

Output:

Message: SetUserPasswordResponse

Elements: Success

### User Fields

Field	Type	Read Only	Filterable Orderable	Description
AllResourceAccessFlag	boolean		X	The flag that determines whether the user has all resource access (TRUE) or restricted resource access (FALSE). Admin Superusers always have all resource access.

AssignmentStaffingPreference	string restricted to " 'New' 'Existing' 'Ask Me'			The value that determines whether the current or the new resource's Units per Time and Overtime factor is used to calculate costs when assigning the resource to an existing activity assignment. If the AssignmentStaffingPreference is set to 'Ask Me', the default value is then current resource.
CreateDate	dateTime	X	X	The date this user was created.
CreateUser	string	X	X	The name of the user that created this user.
CurrencyId	string restricted to maxLength(6)	X	X	The unique currency abbreviation for the currency associated with this user.

CurrencyName	string restricted to maxLength(40)	X	X	The name of the currency associated with this user.
CurrencyObjectId	int		X	The unique ID of the associated currency
CurrencyShowDecimals	boolean			The flag which when set to true will show decimal places for the currency, and when set to false will not Display decimal places. Possible values : 'True' or 'False'
CurrencyShowSymbol	boolean			The flag which when set to true will show Currency Symbol for the currency, and when set to false will not Display Currency Symbol. Possible values : 'True' or 'False'

DateFormatType	string restricted to "Month, Day, Year" "Day, Month, Year" "Year, Month, Day"			The date format type for the user: 'Month, Day, Year' , 'Day, Month, Year' or 'Year, Month, Day'.
DateSeparator	string restricted to "/" "-" "."			The date Separator for the user: '/' , '-' or '.'
DateShowFourDigitYear	boolean			The flag which when set to true will show four digit year for the Date format specified, and when set to false will not show four digit year. Possible values : 'True' or 'False'
DateShowMinutes	boolean			The flag which when set to true will show minutes value for the Time format specified, and when set to false will not show minutes value. Possible

				values : 'True' or 'False'
DateTimeFormatType	string restricted to "12 hour (1:30 PM)" "24 hour (13:30)" "Do not show time"			The date format type for the user: '12 hour (1:30 PM)' , '24 hour (13:30)' or 'Do not show time'.
DateUseLeadingZero	boolean			The flag which when set to true will show leading zero for the Date format specified, and when set to false will not show leading zero. Possible values : 'True' or 'False'
DateUseMonthName	boolean			The flag which when set to true will show month value for the Date format specified, and when set to false will not show month value. Possible values :

				'True' or 'False'
DoNotShowNewFeaturesAgain	boolean			The flag that, when set to true, will suppress the What's New dialog for the user until the next version change.
DurationDecimalCount	string restricted to "0" "1" "2"			The Duration Decimal count for the user is the number of decimal places to be displayed for the Duration. : '0', '1' or '2'.
DurationUnitType	string restricted to "Hour" "Day" "Week" "Month" "Year" "Day Hours" "Hours Minutes"			The Duration Unit Type for the user is the Display Time units In: 'Hour', 'Day', 'Week', 'Month' or 'Year'.
DurationUseFraction	boolean			The flag which when set to true will show units for the Duration, and when set to false will not



				show units. Possible values : 'True' or 'False'
EmailAddress	string restricted to maxLength(255)		X	The current user's return email address. This will be used in the "FROM" line for any email sent by this user. Example: "yourname@yourdomain.com". For MAPI users, this may just be the MAPI profile name or mailbox name.
EmailProtocol	string restricted to 'Internet Mail' 'MAPI Mail'		X	The email type for the user: 'Internet Mail' or 'MAPI Mail'.
EnableUserToModifyViewSettingsFlag	boolean		X	The flag that when set to true allows the user to change his or her personal view settings in P6. When a user changes the user interface view settings, the

				changes do not affect the settings of other users assigned to the same view.
FinancialPeriodEndObjectId	int			The unique ID generated by the system of the last financial period viewable in columns in Project Management.
FinancialPeriodStartObjectId	int			The unique ID generated by the system of the first financial period viewable in columns in Project Management.
GUID	string restricted to pattern '\{[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}\}'		X	The globally unique ID generated by the system.
GlobalProfileObjectId	int		X	The unique ID of the global security profile

				assigned to the user. See the GlobalProfile class for constants defining the fixed profiles of Admin Superuser and No Global Privileges.
LastUpdateDate	dateTime	X	X	The date this user was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this user.
MailServerLoginName	string restricted to maxLength(255)		X	The mail login name (profile name) for the current user to send outgoing email. If the email protocol is MAPI, this field should contain the MAPI profile name (e.g. "Microsoft Mail Settings"). This field is not required for Internet email users.

Name	string restricted to maxLength(255)		X	The user's login name.
NewProjectDurationType	string restricted to 'Fixed Units/Time' 'Fixed Duration and Units/Time' 'Fixed Units' 'Fixed Duration and Units'			the default duration type assigned to new activities. Valid values are 'Fixed Units/Time', 'Fixed Duration and Units/Time', 'Fixed Units', or 'Fixed Duration and Units'.
ObjectId	int		X	The unique ID generated by the system.
OfficePhone	string restricted to maxLength(32)		X	The work phone number of the user.
OutgoingMailServer	string restricted to maxLength(120)		X	The outgoing mail server (SMTP) address used to send outgoing email for this user. The address may be a host name or an IP

				address. This field is used only with the Internet email protocol, and is not required for MAPI. Example: "smtp.yourdomain.com".
PersonalName	string restricted to maxLength(255)		X	The user's personal or actual name.
RateSourcePreference	string restricted to " 'Resource' 'Role' 'Ask Me'			The value that determines which price/unit will be used by default to calculate costs for the assignment when both a resource and role are assigned. If the value is 'Resource', the resource's price/unit will be used. If the value is 'Role', the role's price/unit will be used. If the value is 'Ask me', the default is set to 'Resource'.

ReportingFlag	boolean		X	The flag that determines whether the user can access ODS database as a database user.
ResourceRequests	See the ResourceRequest table below			The resource requests used as search templates to search for qualified resources.
RespectActivityDurationType	boolean			the setting that indicates whether to recalculate the Duration, Units, or Units/Time for existing assignments based on the activity Duration Type (true) or to preserve the Duration, Units, or Units/Time for existing assignments (false) when adding or removing assignments on activities.

RoleLimitDisplayOption	string restricted to 'Custom Role Limit' 'Calculated Primary Resources Limit' 'Calculated Primary Active Resources Limit'		The option for how RoleLimit is displayed. This setting corresponds to the setting "Display the role limit based on" on the Resources section of the Global tab of the My Preferences Page.
ShowDurationTimeUnit	boolean		The flag which when set to true will show units for the Duration, and when set to false will not show units. Possible values : 'True' or 'False'
ShowTimeUnit	boolean		The flag which when set to true will show units for the Time, and when set to false will not show units. Possible values : 'True' or 'False'

<p>SmallScaleDecimalCount</p>	<p>string restricted to "0" "1" "2"</p>			<p>The Small Scale Decimal count for the user is the number of decimal places to be displayed for the Time. : '0','1' or '2'.</p>
<p>SmallScaleUnitType</p>	<p>string restricted to "Hour" "Day" "Week" "Month" "Year" "Day Hours" "Hours Minutes"</p>			<p>The Small Scale Unit Type for the user is the Display Time units In: 'Hour','Day','Week','Month' or 'Year'.</p>
<p>SmallScaleUseFraction</p>	<p>boolean</p>			<p>The flag which when set to true will show sub units for the Time units format specified, and when set to false will not show sub units. Possible values : 'True' or 'False'</p>
<p>TeamMemberActivityFilters</p>	<p>string</p>			<p>The Staturer activity filters for the Team Member application.</p>



TeamMemberActivitySortField	string	x		Select whether column name entries are sorted in ascending or descending order.
TeamMemberActivitySortOrder	string	x		From the Sort Order list, you can select to list projects in the scorecard in either ascending (e.g., A to Z) or descending (e.g., Z to A) order.
TeamMemberApplicationTheme	string			The user interface theme setting for P6 Team Member Web.
TeamMemberDateFormat	string			The date format setting for the P6 Team Member Web.
TeamMemberDisplayTimeFlag	boolean			The display hours setting for P6 Team Member Web.

TeamMemberDisplayTimeFormat	string			The display hours format setting for P6 Team Member Web.
TeamMemberLocale	string			The user-specific locale set for P6 Team Member Web.
TeamMemberProjectFilter	string			The project filter for P6 Team Member Web.
TeamMemberResourceFilter	string	X		The user-specific resource filter for P6 Team Member Web.
TeamMemberDisplayQRQuickAccess	string	X		The flag that is used to determine if a user has seen the QR quick access link in P6 Team Member Web.
TeamMemberTaskStatusFilter	string			The task status filter for P6 Team Member Web.
TeamMemberTimeframeFilter	string			The time frame filter for P6 Team Member Web.

TeamMember WBSFilter	string	X		The user-specific wbs filter for P6 Team Member Web.
TeamMember WorkUnitType	string restricted to 'Hour' 'Day' 'Week' 'Month' 'Year' 'Days Hours' 'Hours Minutes'			The work unit type user preference for P6 Team Member Web.
UnitsPerTime ShowAsPercentage	boolean			The flag which when set to true will show Units/Time as Percentage, and when set to false will display as Units/Duration. Possible values : 'True' or 'False'
UserInterface ViewObjectId	int		X	The unique ID of the associated user interface view.

### ResourceRequest Table

FinishDate	dateTime
MatchAllCriteria	boolean
Name	string
RequestedUnits	double
SequenceNumber	int
ShowOnlyLaborResources	boolean
ShowOverallocatedResources	boolean
SortResultsByAvailability	boolean
StartDate	dateTime
UseActivityDates	boolean

ResourceRequest Criterion	<ul style="list-style-type: none"> <li>▶ CriterionType string restricted to 'Primary Role' 'Role' 'Resource' 'Resource Code'</li> <li>▶ Proficiency string restricted to '1 - Master' '2 - Expert' '3 - Skilled' '4 - Proficient' '5 - Inexperienced'</li> <li>▶ ValueObjectId int</li> </ul>
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## GlobalProfile Service

### Operations:

**CreateGlobalProfiles Operation** (on page 1126)

**ReadGlobalProfiles Operation** (on page 1126)

**UpdateGlobalProfiles Operation** (on page 1127)

**DeleteGlobalProfiles Operation** (on page 1127)

**HasPrivilege Operation** (on page 1127)

**GetFieldLengthGlobalProfile Operation** (on page 1128)

### WSDL: GlobalProfile.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/GlobalProfile/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/GlobalProfileService?wsdl>

<https://<hostname>:<port number>/p6ws/services/GlobalProfileService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.globalprofile.GlobalProfileService`

### Description:

A global profile defines a set of privileges for access to global, or application-wide, information such as cost accounts, resources, and roles. To control user access to global information, you create global profiles, and then assign specific profiles to individual users. All users are required to have a global profile.

To allow complete access to all global information and all projects, a global profile called Admin Superuser is provided. You can assign the Admin Superuser profile to as many users as you like. However, since the Admin Superuser profile enables access to all information, you would typically restrict the number of users to whom you assign this profile.

### CreateGlobalProfiles Operation

Description: Creates multiple GlobalProfile objects in the database. You can create up to 1000 GlobalProfile objects with a single call.

**Service:** *GlobalProfile Service (on page 1125)*

Style: Document/literal wrapped

Input:

Message: CreateGlobalProfiles

Elements: GlobalProfile elements that contain **GlobalProfile Fields** (on page 1128) fields

Required fields: You must supply the Name field.

Output:

Message: CreateGlobalProfilesResponse

Output: Zero to many ObjectID elements

### ReadGlobalProfiles Operation

Description: Reads GlobalProfile objects from the database.

**Service:** *GlobalProfile Service (on page 1125)*

Style: Document/literal wrapped

Input:

Message: ReadGlobalProfiles

Elements: One to many field names from the **GlobalProfile Fields** (on page 1128) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadGlobalProfilesResponse

Output: Zero to many GlobalProfile elements that contain GlobalProfile fields.

## UpdateGlobalProfiles Operation

Description: Updates multiple GlobalProfile objects in the database. You can update up to 1000 GlobalProfile objects with a single call.

**Service:** *GlobalProfile Service (on page 1125)*

Style: Document/literal wrapped

Input:

Message: UpdateGlobalProfiles

Elements: GlobalProfile elements that contain **GlobalProfile Fields** (on page 1128) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateGlobalProfilesResponse

Output: boolean

## DeleteGlobalProfiles Operation

Description: Deletes multiple GlobalProfile objects in the database. You can delete up to 1000 GlobalProfile objects with a single call.

**Service:** *GlobalProfile Service (on page 1125)*

Style: Document/literal wrapped

Input:

Message: DeleteGlobalProfiles

Elements: One to many ObjectId elements

Output:

Message: DeleteGlobalProfilesResponse

Output: boolean

## HasPrivilege Operation

Description: Returns a boolean for whether or not a global profile has a specified privilege.

**Service:** *GlobalProfile Service (on page 1125)*

Style: Document/literal wrapped

Input:

Message: HasPrivilege

Elements:

- ▶ ProfileObjectId
- ▶ Privilege

Output:

Message: HasPrivilegeResponse

Element: boolean

### GetFieldLengthGlobalProfile Operation

Description: Returns length of variable character fields for a BO.

**Service:** *GlobalProfile Service (on page 1125)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthGlobalProfile

Elements: FieldLength

Output:

Message: GetFieldLengthGlobalProfileResponse

Elements: One to many FieldLengthRoleGlobalProfiles.

### GlobalProfile Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this Global Profile was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this Global Profile.
IsDefault	boolean		X	The flag that indicates this security profile is assigned to new users by default. When a GlobalProfile object is deleted from the database, all users assigned to that profile are reassigned to the default profile. You cannot not delete the default profile.
IsSuperUser	boolean	X	X	The flag that identifies the superuser profile. Superuser profiles are automatically



				granted all privileges.
LastUpdateDate	dateTime	X	X	The date this Global Profile was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this Global Profile.
Name	string restricted to maxLength(100)		X	The privileges that are turned on.
ObjectId	int		X	The unique ID generated by the system.
Privilege				The name of the global profile privilege. See <b>Global Privilege Definitions</b> (on page 1129) for additional details.
Has	boolean			
Name	string			

## Global Privilege Definitions

### Administration Privileges

#### Add/Edit/Delete OBS option

Determines whether the profile will enable users to create, modify, and remove hierarchical data for the global Organizational Breakdown Structure.

#### Add/Edit/Delete Security Profiles option

Determines whether the profile will enable users to create, modify, and remove global and project security profiles, which grant access to application-wide and project-specific information.

#### Add/Edit/Delete Users option

Determines whether the profile will enable users to create, modify, and remove P6 EPPM user data. To search the LDAP directory when provisioning, users must also have the Provision Users from LDAP global privilege.

#### Add/Edit/Delete User Interface Views option

Determines whether the profile will enable users to create, modify, and remove user interface views configurations, which control the functionality users can access in P6.

**Edit Application Settings** option

Determines whether the profile will enable users to modify application settings, which set global preferences for P6 EPPM.

**Provision Users from LDAP** option

Determines whether the profile will enable users to search the LDAP directory when provisioning. For users who do not have this privilege assigned to their profile, the option to load an LDIF file to provision users will still be enabled. To search the LDAP directory, users also must also have the 'Add/Edit/Delete Users' global privilege.

**View Published Audit Data** option

Determines whether the profile will enable users to view published table auditing data.

**Codes Privileges**

**Add Global Activity Codes** option

Determines whether the profile will enable users to create global activity codes and code values data. This privilege also selects the 'Edit Global Activity Codes' global privilege.

**Edit Global Activity Codes** option

Determines whether the profile will enable users to modify global activity codes data. This privilege also enables users to create, modify, and remove global activity code values.

**Delete Global Activity Codes** option

Determines whether the profile will enable users to remove global activity codes and code values data. This privilege also selects the 'Add Global Activity Codes' and 'Edit Global Activity Codes' global privileges.

**Add Global Issue Codes** option

Determines whether the profile will enable users to create global issue codes and code values data. This privilege also selects the 'Edit Global Issue Codes' global privilege.

**Edit Global Issue Codes** option

Determines whether the profile will enable users to modify global issue codes data. This privilege also enables users to create, modify, and remove global issue code values.

**Delete Global Issue Codes** option

Determines whether the profile will enable users to remove global issue codes and code values data. This privilege also selects the 'Add Global Issue Codes' and 'Edit Global Issue Codes' global privileges.

**Add Project Codes** option

Determines whether the profile will enable users to create project codes and code values data. This privilege also selects the 'Edit Project Codes' global privilege.

**Edit Project Codes** option

Determines whether the profile will enable users to modify project codes data. This privilege also enables users to create, modify, and remove project code values.

**Delete Project Codes** option

Determines whether the profile will enable users to remove project codes and code values data. This privilege also selects the 'Add Project Codes' and 'Edit Project Codes' global privileges.

**Add Resource Codes** option

Determines whether the profile will enable users to create resource codes and code values data. This privilege also selects the 'Edit Resource Codes' global privilege.

**Edit Resource Codes** option

Determines whether the profile will enable users to modify resource codes data. This privilege also enables users to create, modify, and remove resource code values.

**Delete Resource Codes** option

Determines whether the profile will enable users to remove resource codes and code values data. This privilege also selects the 'Add Resource Codes' and 'Edit Resource Codes' global privileges.

**Add Role Codes** option

Determines whether the profile will enable users to create role codes and code values data. This privilege also selects the 'Edit Role Codes' global privilege.

**Edit Role Codes** option

Determines whether the profile will enable users to modify role codes data. This privilege also enables users to create, modify, and remove role code values.

**Delete Role Codes** option

Determines whether the profile will enable users to remove role codes and code values data. This privilege also selects the 'Add Role Codes' and 'Edit Roles' global privileges.

**Add Assignment Codes** option

Determines whether the profile will enable users to create assignment codes and code values data. This privilege also selects the 'Edit Assignment Codes' global privilege.

**Edit Assignment Codes** option

Determines whether the profile will enable users to modify assignment codes data. This privilege also enables users to create, modify, and remove assignment code values.

**Delete Assignment Codes** option

Determines whether the profile will enable users to remove assignment codes and code values data. This privilege also selects the 'Add Assignment Codes' and 'Edit Assignment Codes' global privileges.

**Add/Delete Secure Codes** option

Determines whether the profile will enable users to create and remove all secure project codes, global and EPS-level activity codes, resource codes, role codes, issue codes, and code values data. This privilege also selects the 'Edit Secure Codes,' 'Assign Secure Codes,' and 'View Secure Codes' global privileges.

**Edit Secure Codes** option

Determines whether the profile will enable users to modify all secure project codes, global and EPS-level activity codes, resource codes, role codes, issue codes, and code values data. This privilege also selects the 'Assign Secure Codes' and 'View Secure Codes' global privileges.

**Assign Secure Codes** option

Determines whether the profile will enable users to assign all secure project codes, global and EPS-level activity codes, resource codes, role codes, issue codes, and code values data. This privilege also selects the 'View Secure Codes' global privilege.

**View Secure Codes** option

Determines whether the profile will enable users to display all secure project codes, global and EPS-level activity codes, resource codes, role codes, issue codes, and code values data.

## Global Data Privileges

**Add/Edit/Delete Categories and Overhead Codes** option

Determines whether the profile will enable users to create, modify, and remove categories and overhead codes data, which can be applied to all projects. Overhead codes are only available to P6 Team Member Web users.

**Add/Edit/Delete Cost Accounts** option

Determines whether the profile will enable users to create, modify, and remove cost accounts data.

**Add/Edit/Delete Currencies** option

Determines whether the profile will enable users to create, modify, and remove currencies data.

**Add/Edit/Delete Locations** option

Determines whether the profile will enable users to create, modify, and remove locations data.

**Add/Edit/Delete Financial Period Calendar** option

Determines whether the profile will enable users to create, modify, and remove financial period calendar data. To edit period data, users must also have the 'Edit Period Performance' project privilege assigned to their profile.

**Add/Edit/Delete Funding Sources** option

Determines whether the profile will enable users to create, modify, and remove funding source data.

**Add/Edit/Delete Global Calendars** option

Determines whether the profile will enable users to create, modify, and remove global calendars data.

**Add/Edit/Delete Global Portfolios** option

Determines whether the profile will enable users to create, modify, and remove global portfolio configurations in Manage Portfolios Views.

**Add/Edit/Delete Risk Categories, Matrices, and Thresholds** option

Determines whether the profile will enable users to create, modify, and remove risk categories, risk scoring matrices, and risk thresholds data.

**Add/Edit/Delete Timesheet Period Dates** option

Determines whether the profile will enable users to create, modify, and remove individual or batched timesheet periods.

**Add/Edit/Delete User Defined fields** option

Determines whether the profile will enable users to create, modify, and remove User Defined fields. Even without this privilege, users can still display User Defined fields information.

**Add/Edit/Delete Stored Images** option

Determines whether the profile will enable users to create, modify, and remove stored images in P6 EPPM and P6 Professional.

## Resources Privileges

**Add Resources** option

Determines whether the profile will enable users to create resource data. This privilege also selects the 'Edit Resources' global privilege.

**Edit Resources** option

Determines whether the profile will enable users to modify resource data. This privilege also enables users to assign, modify, and remove role assignments. To display resources' price/unit in reports, users must have this privilege and the 'View Resource and Role Costs/Financials' global privilege assigned to their profile. To display resource skill level (a resource's role proficiency) in the application and in reports, users must have this privilege and the 'View Resource Role Proficiency' global privilege assigned to their profile.

**Delete Resources** option

Determines whether the profile will enable users to remove resource data. This privilege also selects the 'Add Resources' and 'Edit Resources' global privileges.

**Note:** When a resource is deleted, all historical data for that resource and its assignments is also deleted. This includes resource costs and spreads from all projects to which that resource was assigned. Deleting resources can change the costs and units figures for all projects to which that resource was assigned. In most circumstances users should not delete resources, but clear the Active option for the resource on the Resources tab on the Resources Administration page.

Exercise extreme caution when assigning the Delete Resources privilege.

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**Add/Edit/Delete Resource Calendars** option

Determines whether the profile will enable users to create, modify, and remove resource calendars data. This privilege also enables users to edit Shifts in P6 Professional.

**Add/Edit/Delete Resource Curves** option

Determines whether the profile will enable users to create, modify, and remove resource distribution curves definitions.

**Add/Edit/Delete Roles** option

Determines whether the profile will enable users to create, modify, and remove roles data.

**Add/Edit/Delete Global Resource and Role Teams** option

Determines whether the profile will enable users to create, modify, and remove global Resource Teams and Role Teams. A Resource/Role Team is a collection of resources/roles.

**Add/Edit/Delete Rate Types and Units of Measure** option

Determines whether the profile will enable users to create, modify, and remove resource rate types and units of measure data.

**View Resource and Role Costs/Financials** option

Determines whether the profile will enable users to display all values for labor, material, and nonlabor resource costs, price/unit values for roles, and costs for resource and resource assignments User Defined fields. For users who do not have this privilege assigned to their profile, all areas that display monetary values for labor, material, and nonlabor resources and roles will display dashes and cannot be edited. For resources, such areas include resource price/unit, values in resource spreadsheets and histograms in Resource Analysis and Team Usage, and Cost data types for Resource User Defined fields. For roles, the area is the price/unit value in roles data. To display resources' price/unit, users must have this privilege and the 'Edit Resources' global privilege assigned to their profile.

**View Resource Role Proficiency** option

Determines whether the profile will enable users to display, group/sort, filter, search, and report on resource and role proficiency. To display resource skill level (a resource's role proficiency), users must have this privilege and the Edit Resources global privilege assigned to their profile.

**Approve Resource Timesheets** option

Determines whether the profile will enable users to approve or reject submitted timesheets as a Resource Manager.

## Templates Privileges

### **Add/Edit/Delete Activity Step Templates** option

Determines whether the profile will enable users to create, modify, and remove Activity Step Templates, which are used to add a set of common steps to multiple activities.

### **Add/Edit/Delete Issue Forms** option

Determines whether the profile will enable users to create, modify, and remove issue forms.

### **Add/Edit/Delete Microsoft Project and Primavera Templates** option

Determines whether the profile will enable users to create, modify, and remove templates that are used to import/export data from/to Microsoft Project or Primavera XML formats.

### **Add/Edit/Delete Project Templates** option

Determines whether the profile will enable users to create, modify, and remove templates that can be used when creating new projects. To create project templates, users must also have the 'Add Projects' project privilege assigned to their profile. To modify templates, you must have the same project privileges that are required to modify projects. To delete project templates, users must also have the 'Delete Projects' project privilege assigned to their profile.

## Tools Privileges

### **Administer Global External Applications** option

Determines whether the profile will enable users to create, modify, and remove entries in the list of global external applications in P6 Professional.

### **Administer Global Scheduled Services** option

Determines whether users have the privilege to modify settings on the Global Scheduled Services dialog box. You can modify the following publishing services if you have this privilege: Publish Enterprise Data, Publish Enterprise Summaries, Publish Resource Management, Publish Security. With this privilege, you can enable the service, choose how often the service will run, and at what time the service will run.

### **Administer Project Scheduled Services** option

Determines whether the profile will enable users to set up the Apply Actuals, Summarize, Schedule, and Level scheduled services to run at specific time intervals.

### **Edit Global Change Definitions** option

Determines whether the profile will enable users to create, modify, and remove Global Change specifications available to all users in P6 Professional.

### **Import P6 Professional XER and MPX** option

Determines whether the profile will enable users to import projects, resources, and roles from XER and MPX formats using P6 Professional. To create new projects when importing, users must also have the 'Create Project' project privilege assigned to their profile. Users must be an Admin or Project Superuser to update a project from an XER file.

**Import XLS** option

Determines whether the profile will enable users to import projects, resources, and roles from XLS files into P6 Professional and P6. P6 Professional users must also be a Project Superuser to update a project from XLS format. P6 users do not need to be a Project Superuser, but do require the Add/Edit Activities Except Relationships privilege.

**Import XML** option

Determines whether the profile will enable users to import projects from P6, P6 Professional, and Microsoft Project using XML format. To create new projects when importing, users must also have the 'Create Project' project privilege assigned to their profile.

**Enable Work Offline** option

Determines whether the profile will enable users to work offline in P6 Professional configured to a database with a P6 Pro Cloud Connect alias. To work offline, the database alias must have the Enable Client-side Cache option selected. To see this privilege, select the Enable offline mode option in the General pane of Application Settings.

## Views and Reports Privileges

**Add/Edit/Delete Global Activity and Assignment Layouts, Views and Filters** option

Determines whether the profile will enable users to create, modify, and remove global activity and resource assignment layouts, views, and filters.

**Add/Edit/Delete Global Dashboards** option

Determines whether the profile will enable users to create, modify, and remove global dashboards.

**Add/Edit/Delete Global Project, WBS and Portfolio Layouts, Views and Filters** option

Determines whether the profile will enable users to create, modify, and remove global project, WBS, and portfolio layouts, views, and filters. This privilege is required to save view changes made to the Portfolio Analysis page.

**Add/Edit/Delete Global Reports** option

Determines whether the profile will enable users to create, modify, and remove global reports, including editing report groups and global report batches and saving global reports created or modified in P6 Professional.

**Edit Global Tracking Layouts** option

Determines whether the profile will enable users to create, modify, and remove global tracking layouts in P6 Professional.

**Edit Projects from Scorecards** option



Determines whether the profile will enable users to create, modify, and remove projects from scorecards in the Portfolio View portlet and the Portfolio Analysis page. This privilege is required to save data changes made to the Portfolio Analysis page. The following project privileges are also required for scorecards: 'Edit Project Details Except Costs/Financials' to edit project data, 'View Project Costs/Financials' to view project cost data, 'Edit WBS Costs/Financials' to edit project cost data, 'Create Project' to add a project, and 'Delete Project' to delete a project.

#### **Add/Edit/Delete Global Visualizer Layouts** option

Determines whether the profile will enable users to create, modify, and remove global layouts in Visualizer.

#### **Add/Edit/Delete Global Visualizer Filters** option

Determines whether the profile will enable users to create, modify, and remove global filters in Visualizer.

## **ProjectProfile Service**

### **Operations:**

**CreateProjectProfiles Operation** (on page 1138)

**ReadProjectProfiles Operation** (on page 1138)

**UpdateProjectProfiles Operation** (on page 1139)

**DeleteProjectProfiles Operation** (on page 1139)

**GetFieldLengthProjectProfile Operation** (on page 1139)

### **WSDL: ProjectProfile.wsdl**

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ProjectProfile/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ProjectProfileService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ProjectProfileService?wsdl>

### **Java Client Stub Class:**

`com.primavera.ws.p6.projectprofile.ProjectProfileService`

### **Description:**

A project profile defines a set of privileges for access to project-specific information. Project profiles are assigned to users based on the OBS hierarchy. To control access to project-specific information, you create project profiles, and then assign specific OBS elements and associated project profiles to individual users. The assigned OBS element determines the EPS and WBS elements for which the user can access project information. The assigned project profile determines the type of access privileges the user has to that project information.

All WBS elements are required to have an assigned responsible OBS. If a user's project profile assignment includes a WBS element's responsible OBS, then the user can access all activities, risks, and issues related to that WBS element. Similarly, all thresholds and project issues also have an assigned responsible OBS. If a user's project profile assignment includes a threshold or issue's responsible OBS, then the user can access that threshold or issue.

A user is not required to have a profile for every project. However, unless a user's global profile is Admin Superuser, that user cannot access a project without a project profile. To allow complete access to a project/OBS assignment, a project profile is included named Project Superuser. You can apply the Project Superuser profile to as many users and for as many projects as you like.

### CreateProjectProfiles Operation

Description: Creates multiple ProjectProfile objects in the database. You can create up to 1000 ProjectProfile objects with a single call.

**Service:** *ProjectProfile Service (on page 1137)*

Style: Document/literal wrapped

Input:

Message: CreateProjectProfiles

Elements: ProjectProfile elements that contain **ProjectProfile Fields** (on page 1140) fields

Required fields: You must supply the Name field.

Output:

Message: CreateProjectProfilesResponse

Output: Zero to many ObjectId elements

### ReadProjectProfiles Operation

Description: Reads ProjectProfile objects from the database.

**Service:** *ProjectProfile Service (on page 1137)*

Style: Document/literal wrapped

Input:

Message: ReadProjectProfiles

Elements: One to many field names from the **ProjectProfile Fields** (on page 1140) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadProjectProfilesResponse

Output: Zero to many ProjectProfile elements that contain ProjectProfile fields.

### UpdateProjectProfiles Operation

Description: Updates multiple ProjectProfile objects in the database. You can update up to 1000 ProjectProfile objects with a single call.

**Service:** *ProjectProfile Service (on page 1137)*

Style: Document/literal wrapped

Input:

Message: UpdateProjectProfiles

Elements: ProjectProfile elements that contain **ProjectProfile Fields** (on page 1140) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateProjectProfilesResponse

Output: boolean

### DeleteProjectProfiles Operation

Description: Deletes multiple ProjectProfile objects in the database. You can delete up to 1000 ProjectProfile objects with a single call.

**Service:** *ProjectProfile Service (on page 1137)*

Style: Document/literal wrapped

Input:

Message: DeleteProjectProfiles

Elements: One to many ObjectId elements

Output:

Message: DeleteProjectProfilesResponse

Output: boolean

### GetFieldLengthProjectProfile Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ProjectProfile Service (on page 1137)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthProjectProfile

Elements: FieldLength

Output:

Message: GetFieldLengthProjectProfileResponse

Elements: One to many FieldLengthRoleProjectProfiles.

### ProjectProfile Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this project profile was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this project profile.
IsDefault	boolean		X	The flag that indicates this security profile is the default profile assigned to UserOBS objects. When a ProjectProfile object is deleted from the database, all UserOBS objects assigned to that profile are reassigned to the default profile. You cannot not delete the default profile.
IsSuperUser	boolean	X	X	The flag that indicates this is the project superuser profile, which gives a user read/write privileges for all project and OBS specific information and features
LastUpdateDate	dateTime	X	X	The date this project profile was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this project profile.
Name	string restricted to maxLength(10)		X	The unique name of this project profile

	0)			
ObjectId	int		X	The unique ID generated by the system.
Privilege				The name of the global profile privilege. See <b>Project Privilege Definitions</b> (on page 1141) for additional details.
Has	boolean			
Name	string			

## Project Privilege Definitions

### Activities Privileges

#### Add/Edit Activities Except Relationships option

Determines whether the profile will enable users to create and modify all activity information in projects, except activity relationships. Users assigned a profile with this privilege can also designate another user as an activity owner and be assigned as a status reviewer for reviewing status updates from P6 Team Member interface users. Users assigned Team Member work distribution filters must have this privilege assigned. To modify activity IDs, users must also have the Edit Activity ID project privilege assigned to their profile. To use the Recalculate Assignment Costs feature, users must also have the 'View Project Costs/Financials' project privilege assigned to their profile.

#### Delete Activities option

Determines whether the profile will enable users to remove activities from projects.

#### Add/Edit/Delete Activity Relationships option

Determines whether the profile will enable users to create, modify, and remove activity relationships assigned to projects.

#### Edit Activity ID option

Determines whether the profile will enable users to modify activity IDs. To modify activity IDs, users must also have the 'Add/Edit Activities Except Relationships' project privilege assigned to their profile.

#### Add/Edit/Delete Expenses option

Determines whether the profile will enable users to create, modify, and remove expenses assigned to projects.

#### Delete Discussion Comments option

Determines whether the profile will enable users to delete discussion comments assigned to activities.

## Codes Privileges

### **Add Project Activity Codes** option

Determines whether the profile will enable users to create project activity codes and code values data. This privilege also selects the 'Edit Project Activity Codes' project privilege.

### **Edit Project Activity Codes** option

Determines whether the profile will enable users to modify project activity codes data. This privilege also enables users to create, modify, and remove project activity code values.

### **Delete Project Activity Codes** option

Determines whether the profile will enable users to remove project activity codes and code values data. This privilege also selects the 'Add Project Activity Codes' and 'Edit Project Activity Codes' project privileges.

### **Add EPS Activity Codes** option

Determines whether the profile will enable users to create EPS-level activity codes and code values. This privilege also selects the 'Edit EPS Activity Codes' project privilege.

### **Edit EPS Activity Codes** option

Determines whether the profile will enable users to modify the name of EPS-level activity codes. This privilege also enables users to create, modify, and remove EPS-level activity code values.

### **Delete EPS Activity Codes** option

Determines whether the profile will enable users to remove EPS-level activity codes and code values data. This privilege also selects the 'Add EPS Activity Codes' and 'Edit EPS Activity Codes' project privileges.

## EPS and Project Privileges

### **Add/Edit/Delete EPS Except Costs/Financials** option

Determines whether the profile will enable users to create, modify, and remove EPS hierarchy nodes, edit EPS notebook, and edit all EPS-related data except financial information.

### **Edit EPS Costs/Financials** option

Determines whether the profile will enable users to modify EPS budget logs, funding sources, and spending plans.

### **Add Projects** option

Determines whether the profile will enable users to create, copy, and paste projects within the EPS node. To create project templates, users must also have the 'Add/Edit/Delete Project Templates' global privilege assigned to their profile.

### **Delete Projects** option

Determines whether the profile will enable users to delete, cut, and paste projects within the EPS node. To delete project templates, users must also have the 'Add/Edit/Delete Project Templates' global privilege assigned to their profile.

**Edit Project Details Except Costs/Financials** option

Determines whether the profile will enable users to set Project Preferences and to edit project-level data. This privilege also enables users to assign or remove a risk scoring matrix to a project in the Risk Scoring Matrices page in Enterprise Data.

Certain Project Preferences, such as editing Publication Priority, require additional privileges. To assign a project baseline, users must also have the 'Assign Project Baselines' project privilege assigned to their profile. To edit cost UDFs, users must also have the 'Edit WBS Costs/Financials' project privilege assigned to their profile.

**Add/Edit/Delete WBS Except Costs/Financials** option

Determines whether the profile will enable users to create, modify, and remove WBS hierarchy nodes and other WBS level data including notebook entries, earned value settings, milestones, and dates. This privilege does not allow users to edit cost and financial data at the WBS level.

**Edit WBS Costs/Financials** option

Determines whether the profile will enable users to modify Project or WBS budget logs, funding sources, spending plan, and financial data at the project level. To edit costs and financials at the WBS level, including cost UDFs, users must also have the 'Add/Edit/Delete WBS Except Costs/Financials' project privilege assigned to their profile. The 'Edit WBS Costs/Financials' privilege also selects the 'View Project Costs/Financials' project privilege.

**View Project Costs/Financials** option

Determines whether the profile will enable users to display all monetary values for projects. For users who do not have this privilege assigned to their profile, all areas that display monetary values will display dashes and cannot be edited. To use the Recalculate Assignment Costs feature, users must also have the 'Add/Edit Activities Except Relationships' project privilege assigned to their profile. To display the resource price/unit, users must have the 'View Resource and Role Costs/Financials' global privilege assigned to their profile.

**Delete Project Data with Timesheet Actuals** option

Determines whether the profile will enable users to delete activities and resource assignments for projects that have timesheet actuals. This includes cutting an activity with timesheet actuals and pasting the activity to another project. To delete project data at all different levels (activity, WBS, project, and EPS), users must also have the appropriate privileges assigned to their profile. For example, to delete activities with timesheet actuals, users must also have the 'Delete Activities' project privilege assigned to their profile. To delete activities and WBS nodes with timesheet actuals, users must additionally have the 'Add/Edit/Delete WBS Except Costs/Financials' project privilege assigned to their profile.

**Delete Published Project Data** option

Determines whether the profile will enable users to delete published project data using the Delete Published Data action on the EPS page.

**Export Project Data** option

Determines whether the profile will enable users to export project data and download data to Excel using the Download link below grids.

**Project Data Privileges**

**Add/Edit/Delete Issues and Issue Thresholds** option

Determines whether the profile will enable users to create, modify, and remove thresholds and issues assigned to projects. The privilege also enables users to assign issue codes to project issues.

**Add/Edit/Delete Project Baselines** option

Determines whether the profile will enable users to create, modify, and remove baselines for projects.

**Add/Edit/Delete Project Calendars** option

Determines whether the profile will enable users to create, modify, and remove calendars assigned to projects.

**Add/Edit/Delete Risks** option

Determines whether the profile will enable users to create, modify, and remove risks assigned to projects.

**Add/Edit/Delete Template Documents** option

Determines whether the profile will enable users to create, modify, remove project template documents. If the content repository is installed and configured, this privilege also enables P6 users to check out and start reviews for project template documents. P6 Professional users cannot open documents added via a P6 installation with a configured content repository. A profile must be assigned the 'Add/Edit/Delete Work Products and Documents' project privilege before you can select this privilege.

**Add/Edit/Delete Work Products and Documents** option

Determines whether the profile will enable users to create, modify, and remove project documents that do not have a security policy applied. Document security policies are available only in P6 and only for documents stored in the content repository. When the content repository is installed and configured, this privilege also enables users to create document folders in P6.

**Assign Project Baselines** option

Determines whether the profile will enable users to assign project baselines to projects. To assign project baselines, users must also have the 'Edit Project Details Except Costs/Financials' project privilege assigned to their profile.

**Approve Timesheets as Project Manager** option

Determines whether the profile will enable users to approve or reject submitted timesheets as a Project Manager in Timesheet Approval.



## Related Applications Privileges

### **Administer Project External Applications** option

Determines whether the profile will enable users to modify entries in the External Applications feature in P6 Professional.

### **Exchange Project Data with Primavera Unifier** option

Determines whether the profile will enable users to exchange project data with a linked Primavera Unifier project.

### **Exchange Project Data with Oracle Primavera Cloud** option

Determines whether the profile will enable users to exchange project data with a linked Oracle Primavera Cloud project.

### **Exchange Project Data with Gateway** option

Determines whether the profile will enable users to exchange project data with a project linked via Primavera Gateway.

## Resource Assignments Privileges

### **Add/Edit Activity Resource Requests** option

Determines whether the profile will enable users to create and modify resource requests for activities.

### **Add/Edit/Delete Resource Assignments for Resource Planning** option

Determines whether the profile will enable users to add, edit, or delete resource assignments on the Planning Page of the Resources Section.

### **Add/Edit/Delete Role Assignments for Resource Planning** option

Determines whether the profile will enable users to add, edit, or delete role assignments on the Planning Page of the Resources Section.

### **Edit Committed Flag for Resource Planning** option

Determines whether profile will enable the users to edit the committed flag on the Planning Page of the Resources Section.

### **Edit Future Periods** option

Determines whether the profile will enable users to enter, modify, and delete future period assignment values in the Planned Units and Remaining (Early) Units fields of the Resource Usage Spreadsheet using P6 Professional. The 'Add/Edit Activities Except Relationships' project privilege is also required for this functionality.

### **Edit Period Performance** option

Determines whether the profile will enable users to modify period performance values for labor and nonlabor units as well as labor, nonlabor, material, and expense costs using P6 Professional. The 'Add/Edit Activities Except Relationships' and 'View Project Costs/Financials' project privileges are also required for this functionality.

## Tools Privileges

### **Apply Actuals** option

Determines whether the profile will enable users to apply actuals to activities in projects.

### **Check In/Check Out Projects and Open Projects Exclusively** option

Determines whether the profile will enable users to check projects out to work remotely and then check them back in using P6 Professional, and whether users can open projects exclusively. Opening a project exclusively places a lock on the project allowing only the user who opened the project to make changes to the project. Other users can view project data, but cannot make updates until the exclusive lock is released.

### **Level Resources** option

Determines whether the profile will enable users to level resources in projects. This privilege also selects the 'Schedule Project' project privilege.

### **Schedule Projects** option

Determines whether the profile will enable users to schedule projects.

### **Monitor Project Thresholds** option

Determines whether the profile will enable users to run the threshold monitor for projects in P6 Professional.

### **Store Period Performance** option

Determines whether the profile will enable users to track actual this period values for actual units and costs in projects. The 'Add/Edit Activities Except Relationships' project privilege is also required for this functionality.

### **Summarize Projects** option

Determines whether the profile will enable users to summarize data for all projects in the EPS.

### **Edit Publication Priority** option

Determines whether the profile will enable users to edit the Publication Priority for the project. This privilege should be granted only to administrators to optimize the flow of projects through the service queue.

### **Run Baseline Update** option

Determines whether the profile will enable users to update baselines assigned to projects with new project information using the Update Baseline tool.

### **Run Global Change** option

Determines whether the profile will enable users to run Global Change specifications to update activity detail information in P6 Professional.

### **Allow Integration with Primavera Unifier** option

Determines whether the profile will enable users to link projects to Primavera Unifier projects and schedule sheets.

### **Perform Global Search & Replace** option

Determines whether the profile will enable users to use Global Search & Replace to update project, WBS, and activity information in P6.

## Views and Reports Privileges

### Add/Edit Project Level Layouts option

Determines whether the profile will enable users to create, modify, and remove project level layouts in the Activities, Assignments, or WBS windows in P6 Professional.

### Edit Project Reports option

Determines whether the profile will enable users to modify reports, modify report batches, and export reports for projects in P6 Professional.

### Publish Project Website option

Determines whether the profile will enable users to publish a Web site for projects in P6 Professional.

### Add/Edit/Delete Project Visualizer Layouts option

Determines whether the profile will enable users to create, modify, and remove project layouts in Visualizer.

## ResourceAccess Service

### Operations:

**CreateResourceAccess Operation** (on page 1148)

**ReadResourceAccess Operation** (on page 1148)

**DeleteResourceAccess Operation** (on page 1149)

**GetFieldLengthResourceAccess Operation** (on page 1149)

### WSDL: ResourceAccess.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/ResourceAccess/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/ResourceAccessService?wsdl>

<https://<hostname>:<port number>/p6ws/services/ResourceAccessService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.resourceaccess.ResourceAccessService`

### Description:

Resource access allows you to restrict a user's ability to access resources. If the User.AllResourceAccessFlag is True, the user has access to all resources and resource access does not apply. If the User.AllResourceAccessFlag is False, the user has restricted resource access. In this case, the user is assigned to a resource in the resource hierarchy and that resource becomes the user's root resource access node. The position of the user's root resource access node in the hierarchy determines the user's resource access. The user has access to that root resource access node and all of its children, but no other resources above in the hierarchy. If the user is not assigned to any resources, that user does not have access to resources. Admin Superusers always have all resource access.

Note that project access overrides resource access. If a user can access a project, the user is able to see all resources assigned to that project. The user can then assign these resources anywhere but will only be able to edit them if the user has resource access to them.

Resource Access business objects may not be updated. To change the values on a Resource Access object, create a new object with the desired values and delete the old object.

### CreateResourceAccess Operation

Description: Creates multiple ResourceAccess objects in the database. You can create up to 1000 ResourceAccess objects with a single call.

**Service:** *ResourceAccess Service (on page 1147)*

Style: Document/literal wrapped

Input:

Message: CreateResourceAccess

Elements: ResourceAccess elements that contain **ResourceAccess Fields** (on page 1150) fields

Required fields:

- ▶ UserObjectId
- ▶ ResourceObjectId

Output:

Message: CreateResourceAccessResponse

Output: Zero to many ObjectId elements

### ReadResourceAccess Operation

Description: Reads ResourceAccess objects from the database.

**Service:** *ResourceAccess Service (on page 1147)*

Style: Document/literal wrapped

Input:

Message: ReadResourceAccess

Elements: One to many field names from the **ResourceAccess Fields** (on page 1150) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadResourceAccessResponse

Output: Zero to many ResourceAccess elements that contain ResourceAccess fields.

### DeleteResourceAccess Operation

Description: Deletes multiple ResourceAccess objects in the database. You can delete up to 1000 ResourceAccess objects with a single call.

**Service:** *ResourceAccess Service (on page 1147)*

Style: Document/literal wrapped

Input:

Message: DeleteResourceAccess

Elements: One to many ObjectId elements

Output:

Message: DeleteResourceAccessResponse

Output: boolean

### GetFieldLengthResourceAccess Operation

Description: Returns length of variable character fields for a BO.

**Service:** *ResourceAccess Service (on page 1147)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthResourceAccess

Elements: FieldLength

Output:

Message: GetFieldLengthResourceAccessResponse

Elements: One to many FieldLengthResourceAccesses.

## ResourceAccess Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this resource security was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this resource security.
LastUpdate Date	dateTime	X	X	The date this resource security was last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this resource security.
ResourceId	string restricted to maxLength(20)	X	X	The short code that uniquely identifies the resource.
ResourceName	string restricted to maxLength(100)	X	X	The name of the resource.
ResourceObjectId	int		X	The unique ID of the associated resource.
UserName	string restricted to maxLength(255)	X	X	The user's login name.
UserObjectId	int		X	The unique ID of the associated user.

## UserConsent Service

### Operations:

- CreateUserConsent Operation** (on page 1151)
- ReadUserConsent Operation** (on page 1152)
- UpdateUsersConsent Operation** (on page 1152)
- DeleteUserConsent Operation** (on page 1100)
- GetFieldLengthUserConsent Operation** (on page 1153)

### WSDL: UserConsent.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/UserConsent/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/UserConsent?wsdl>
- <https://<hostname>:<port number>/p6ws/services/UserConsent?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.userconsent.UserConsentService`

### Description:

Consent notices inform users how personal information (PI) is collected, processed, stored, and transmitted, along with details related to applicable regulations and policies. Consent notices also alert users that the action they are taking may risk exposing PI.

## CreateUserConsent Operation

Description: Creates multiple UserConsent objects in the database.

**Service:** *UserConsent Service* (on page 1151)

Style: Document/literal wrapped

Input:

Message: CreateUserConsent

Elements: User elements that contain **UserConsent Fields** (on page 1153) fields

Required fields:

- ▶ UserId
- ▶ ConsentType

Output:

Message: CreateUserConsentResponse

Output: Zero to many ObjectId elements

## ReadUserConsent Operation

Description: Reads UserConsent objects from the database.

**Service:** *UserConsent Service (on page 1151)*

Style: Document/literal wrapped

Input:

Message: ReadUserConsent

Elements: One to many field names from the ***UserConsent Fields*** (on page 1153)  
Fields field list

Output:

Message: ReadUserConsentResponse

Output: Zero to many UserConsent elements that contain UserConsent fields.

## UpdateUsersConsent Operation

Description: Updates multiple UserConsent objects in the database.

**Service:** *UserConsent Service (on page 1151)*

Style: Document/literal wrapped

Input:

Message: UpdateUserConsent

Elements: User elements that contain ***UserConsent Fields*** (on page 1153) fields.

Required fields:

- ▶ UserId
- ▶ ConsentType

Output:

Message: UpdateUserConsentResponse

Output: boolean

## DeleteUserConsent Operation

Description: Deletes multiple UserConsent objects in the database.

**Service:** *UserConsent Service (on page 1151)*

Style: Document/literal wrapped

Input:

Message: DeleteUserConsent

Elements: One to many ObjectId elements

Output:



Message: DeleteUserConsentResponse

Output: boolean

### GetFieldLengthUserConsent Operation

Description: Returns length of variable character fields for a BO.

**Service:** *UserConsent Service (on page 1151)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthUserConsent

Elements: FieldLength

Output:

Message: GetFieldLengthUserConsentResponse

Elements: One to many FieldLengthUserConsent.

### UserConsent Fields

Field	Type	Read Only	Filterable Orderable	Description
ConsentAcceptanceDate	dateTime			The date and time of the most recent change of the consent status of the associated user.
ConsentAcceptanceStatus	int			The consent status of the associated user.
ConsentType	int			The context in which the consent acceptance is recorded. Possible values are 1-7 and correspond to the following consent types: 1 = Login consent 2 = Add User consent 3 = Add Resource consent 4 = Add Module

				consent 5 = Download consent 6 = TeamMember login consent 7 = Visualizer login consent
UserId	int			The unique ID of the associated user.

## UserInterfaceView Service

### Operations:

***ReadUserInterfaceViews Operation*** (on page 1154)

***GetFieldLengthUserInterfaceView Operation*** (on page 1155)

### WSDL: UserInterfaceView.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/UserInterfaceView/V1>

Default Transport URLs:

<http://<hostname>:<port number>/p6ws/services/UserInterfaceViewService?wsdl>

<https://<hostname>:<port number>/p6ws/services/UserInterfaceViewService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.userinterfaceview.UserInterfaceViewService`

### Description:

A user interface view is a customized view of P6 Web Access that enables and disables access to P6 Web Access functionality. You can assign a single user interface view to multiple users. However, every user has exactly one user interface view. The system assigns a default user interface view if one has not been specified for the user.

If you set the `EnableUserToModifyViewSettingsFlag` field in the User object to true, users can modify their copy of the user interface view. When a user changes the user interface view settings, the changes do not affect the settings of other users assigned to the same view.

When you assign a user interface view to a user, the new view replaces the user's current user interface view, including any modifications they may have made to the view.

## ReadUserInterfaceViews Operation

Description: Reads UserInterfaceView objects from the database.

**Service: *UserInterfaceView* Service (on page 1154)**

Style: Document/literal wrapped

Input:

Message: ReadUserInterfaceViews

Elements: One to many field names from the ***UserInterfaceView Fields*** (on page 1155) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadUserInterfaceViewsResponse

Output: Zero to many UserInterfaceView elements that contain UserInterfaceView fields.

**GetFieldLengthUserInterfaceView Operation**

Description: Returns length of variable character fields for a BO.

**Service: *UserInterfaceView* Service (on page 1154)**

Style: Document/literal wrapped

Input:

Message: GetFieldLengthInterfaceView

Elements: FieldLength

Output:

Message: GetFieldLengthUserInterfaceViewResponse

Elements: One to many FieldLengthUserInterfaceViews.

**UserInterfaceView Fields**

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this user interface view was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this user interface view.

LastUpdate Date	dateTime	X	X	The date this user interface view was last updated.
LastUpdate User	string	X	X	The name of the user that last updated this user interface view.
Name	string	X	X	The name of the user interface view.
ObjectId	int	X	X	The unique ID generated by the system.
StatusUpdatesApproval	boolean	X		Status Update page access flag in the Approvals section of the Content page of the User Interface View.
TimesheetApproval	boolean	X		Timesheets page access flag in the Approvals section of the Content page of the User Interface View.
UIViewId	ObjectId	X	X	The unique ID generated by the system
UIViewName	string	X	X	The name of the user interface view.
UserId	ObjectId	X	X	The unique ID of the associated user.
UserObjectId	int	X	X	The unique ID of the associated user.

## UserLicense Service

### Operations:

**CreateUserLicenses Operation** (on page 1157)

**ReadUserLicenses Operation** (on page 1157)

**DeleteUserLicenses Operation** (on page 1158)

**GetFieldLengthUserLicense Operation** (on page 1158)

### WSDL: UserLicense.wsdl

Primary Key Field: ObjectId

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/UserLicense/V1>

Default Transport URLs:

http://<hostname>:<port number>/p6ws/services/UserLicenseService?wsdl  
https://<hostname>:<port number>/p6ws/services/UserLicenseService?wsdl

**Java Client Stub Class:**

com.primavera.ws.p6.userlicense.UserLicenseService

**Description:**

A user license grants access to applications within the Primavera suite.

UserLicense business objects may not be updated. To change the values on a UserLicense object, create a new object with the desired values and delete the old object.

**CreateUserLicenses Operation**

Description: Creates multiple UserLicense objects in the database. You can create up to 1000 UserLicense objects with a single call.

**Service:** *UserLicense Service* (on page 1156)

Style: Document/literal wrapped

Input:

Message: CreateUserLicenses

Elements: UserLicense elements that contain **UserLicense Fields** (on page 1158) fields

Required fields:

- ▶ UserObjectId
- ▶ LicenseType

Output:

Message: CreateUserLicensesResponse

Output: Zero to many ObjectId elements

**ReadUserLicenses Operation**

Description: Reads UserLicense objects from the database.

**Service:** *UserLicense Service* (on page 1156)

Style: Document/literal wrapped

Input:

Message: ReadUserLicenses

Elements: One to many field names from the **UserLicense Fields** (on page 1158) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadUserLicensesResponse

Output: Zero to many UserLicense elements that contain UserLicense fields.

### DeleteUserLicenses Operation

Description: Deletes multiple UserLicense objects in the database. You can delete up to 1000 UserLicense objects with a single call.

**Service:** *UserLicense Service* (on page 1156)

Style: Document/literal wrapped

Input:

Message: DeleteUserLicenses

Elements: One to many ObjectId elements

Output:

Message: DeleteUserLicensesResponse

Output: boolean

### GetFieldLengthUserLicense Operation

Description: Returns length of variable character fields for a BO.

**Service:** *UserLicense Service* (on page 1156)

Style: Document/literal wrapped

Input:

Message: GetFieldLengthUserLicense

Elements: FieldLength

Output:

Message: GetFieldLengthUserLicenseResponse

Elements: One to many FieldLengthUserLicenses.

### UserLicense Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this user license was created.
CreateUser	string restricted to	X	X	The name of the user that created

	maxLength(255)			this user license.
LastUpdateDate	dateTime	X	X	The date this user license was last updated.
LastUpdateUser	string restricted to maxLength(255)	X	X	The name of the user that last updated this user license.
LicenseType	string restricted to 'Contributor' 'Enterprise Reports' 'Integration API' 'P6 Analytics' 'P6 Professional' 'Portfolios' 'Timesheet Interfaces' 'Projects' 'Resources' 'Team Member Interfaces' 'Web Services'		X	The property that permits you to configure access to different functional areas of the application suite.
ObjectId	int		X	The unique ID generated by the system.
UserName	string restricted to maxLength(255)	X	X	The user's login name.
UserObjectId	int		X	The unique ID of the associated user.

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## UserOBS Service

### Operations:

- CreateUserOBS Operation** (on page 1160)
- ReadUserOBS Operation** (on page 1161)
- UpdateUserOBS Operation** (on page 1161)
- DeleteUserOBS Operation** (on page 1162)
- GetFieldLengthUserOBS Operation** (on page 1162)

### WSDL: UserOBS.wsdl

Primary Key Field: ObjectID

Target Namespace: <http://xmlns.oracle.com/Primavera/P6/WS/UserOBS/V1>

Default Transport URLs:

- <http://<hostname>:<port number>/p6ws/services/UserOBSService?wsdl>
- <https://<hostname>:<port number>/p6ws/services/UserOBSService?wsdl>

### Java Client Stub Class:

`com.primavera.ws.p6.userobs.UserOBSService`

### Description:

A UserOBS object represents an association between a user object and an OBS object. Users are assigned to global OBS elements to define the scope of project and EPS security for the users. For a user to have access to a project or EPS, the user must be assigned to an OBS element within that project or EPS. (Or, the user must have Admin Superuser privileges.) This gives the user access to any WBS areas their assigned OBS is responsible for.

## CreateUserOBS Operation

Description: Creates multiple UserOBS objects in the database. You can create up to 1000 UserOBS objects with a single call.

**Service:** *UserOBS Service* (on page 1160)

Style: Document/literal wrapped

Input:

Message: CreateUserOBS

Elements: UserOBS elements that contain **UserOBS Fields** (on page 1162) fields

Required fields:



- ▶ UserObjectId
- ▶ OBSObjectId

Output:

Message: CreateUserOBSResponse

Output: Zero to many ObjectId elements

### ReadUserOBS Operation

Description: Reads UserOBS objects from the database.

**Service:** *UserOBS Service (on page 1160)*

Style: Document/literal wrapped

Input:

Message: ReadUserOBS

Elements: One to many field names from the **UserOBS Fields** (on page 1162) field list

You may also include an optional element that contains a filter clause and an optional element that contains an OrderBy clause. Warning: If you do not specify a filter, all business objects of this data type will be returned. Refer to the Filters topic in the *P6 EPPM Web Services Programming Guide* for additional details.

Output:

Message: ReadUserOBSResponse

Output: Zero to many UserOBS elements that contain UserOBS fields.

### UpdateUserOBS Operation

Description: Updates multiple UserOBS objects in the database. You can update up to 1000 UserOBS objects with a single call.

**Service:** *UserOBS Service (on page 1160)*

Style: Document/literal wrapped

Input:

Message: UpdateUserOBS

Elements: UserOBS elements that contain **UserOBS Fields** (on page 1162) fields.

Required fields: The ObjectId must be specified.

Output:

Message: UpdateUserOBSResponse

Output: boolean

### DeleteUserOBS Operation

Description: Deletes multiple UserOBS objects in the database. You can delete up to 1000 UserOBS objects with a single call.

**Service:** *UserOBS Service (on page 1160)*

Style: Document/literal wrapped

Input:

Message: DeleteUserOBS

Elements: One to many ObjectID elements

Output:

Message: DeleteUserOBSResponse

Output: boolean

### GetFieldLengthUserOBS Operation

Description: Returns length of variable character fields for a BO.

**Service:** *UserOBS Service (on page 1160)*

Style: Document/literal wrapped

Input:

Message: GetFieldLengthUserOBS

Elements: FieldLength

Output:

Message: GetFieldLengthUserOBSResponse

Elements: One to many FieldLengthUserOBSs.

### UserOBS Fields

Field	Type	Read Only	Filterable Orderable	Description
CreateDate	dateTime	X	X	The date this association was created.
CreateUser	string restricted to maxLength(255)	X	X	The name of the user that created this association.
LastUpdate Date	dateTime	X	X	The date this association was

				last updated.
LastUpdate User	string restricted to maxLength(255)	X	X	The name of the user that last updated this association.
OBSName	string restricted to maxLength(100)	X	X	The name of the person/role in the organization, sometimes referred to as the "responsible manager".
OBSObjectid	int		X	The unique ID of the OBS to which the user is granted access.
ProfileName	string restricted to maxLength(100)	X	X	The name of security profile.
ProjectProfileObjectid	int		X	The unique ID of the project profile with which the user is granted access to the project and OBS. See the ProjectProfile class for a constant defining the fixed profile of Project Superuser.
UserName	string restricted to maxLength(255)	X	X	The user's login name.
UserObjectid	int		X	The unique ID of the user who is assigned to the project OBS.

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