Oracle
Primavera
P6 EPPM SDEF Conversion Guide for On-Premises

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SDEF Overview

In 1986, the US Army Corps of Engineers recognized the need for a Standard Data Exchange Format (SDEF) to facilitate the exchange of data among contractors using various project management tools. The format chosen was a 132-character per line, fixed-length ASCII file, with data items, field positions, and field lengths explicitly defined by the SDEF specification.

SDEF Specifications

The complete SDEF specification document is available online from the US Army Corps of Engineers official library for Engineer Regulation ER 1-1-11 dated June 15, 1995.

SDEF Conversion Utilities

You can exchange project data with other Primavera users by converting projects to the Oracle Primavera Proprietary Exchange Format (XER). Using the Primavera import/export features, you can then convert an XER file to an SDEF data file, and vice versa. Convert data between the XER and SDEF formats using the following utilities:

- SDEF to XER (P330XERConvert.exe)
- XER to SDEF (XERP330Convert.exe)

Use these SDEF conversion capabilities when you want to

- exchange project data with contractors and owners who do not use Oracle Primavera products.
- provide project data in the SDEF format whenever required by your contract.

> **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.

Conversion Considerations

XER projects can store far more data than the SDEF specification requires. For example, the SDEF file structure allows for only one application of a resource per activity, while XER enables you to apply a resource to an activity repeatedly using resource lags and durations.

XER projects intended for use with the SDEF interface should comply with the SDEF specification. There is no requirement to utilize the additional capabilities that XER offers because the SDEF file structure cannot store the additional data.

Consider the following items when exchanging data between the XER and SDEF formats:

- **Activity description**: The SDEF file structure only allows activity descriptions up to 30 characters long. When converting XER files to SDEF, only the first 30 characters of the description are exported.
- **Activity ID**: The SDEF standard does not support activity IDs longer than ten characters, while XER projects may contain activity IDs longer than ten characters. Activity IDs are truncated to the first ten characters when converting a project to SDEF. Due to this truncation, it is possible that duplicate activity IDs will be encountered during the conversion; if so, the conversion is aborted. To ensure that conversions to SDEF are not aborted, projects should not contain activity IDs longer than ten characters. If activity IDs must be longer than ten characters in XER, the first ten characters must be unique.
- **Activity limit**: SDEF files cannot contain more than 10,000 activities. When converting XER files to SDEF, only the first 10,000 activities are exported.
- **Activity totals**: The SDEF file structure does not store individual resource budgets as XER does. Instead, SDEF stores total budgeted cost and total budgeted units for each activity. The conversion utility totals costs and units for each activity's resources in conformance with the SDEF standard.
- **Calendars**: Calendars in SDEF are only one character; therefore, calendar names from XER are truncated to one character. You are limited to 36 calendars in SDEF (A through Z and 0 through 9).
- **Cost per unit**: The SDEF standard uses a calculated cost per unit for each activity defined as the activity's budget cost divided by its budget quantity. The Oracle Primavera SDEF conversion conforms to this standard.
- **Data mapping**: The following table describes how some XER data is converted to SDEF.

SDEF Field	XER Field or Calculation
Total Qty	Planned/Budgeted Units for the activity assignment
Cost Per Unit	Planned/Budgeted Cost divided by the Planned/Budgeted Units for the activity assignment
Qty to Date	Actual Units for the activity assignment
Activity Cost	Planned/Budgeted Cost for the activity assignment
Cost to Date	Actual Regular Cost for the assignment plus the Stored Material Cost (STMA) amount for the activity **Note**: The Stored Material Cost is derived from the Activity UDF named 'STMA'. Refer to "Required User-defined Field (STMA)" for more information

- **Durations**: The SDEF standard does not support durations longer than 999 days. If your XER project contains durations longer than 999 days, these durations will convert to zero in the SDEF file.
- **Expenses**: The SDEF standard does not support expenses, so expenses are not exported to SDEF.
- **Milestones**: The SDEF standard does not recognize the use of activities as milestones. If your project uses milestones, the converter stores these as zero-duration activities.
- **Required User-Defined Field Named STMA**: SDEF files use a numeric field named STMA for the stored material cost data associated with an activity. By default, this field does not exist in XER. When converting an SDEF file to XER, if the STMA field does not exist as a user-defined field (UDF) in the XER project, it will be automatically created during the import process. If the STMA UDF was previously defined in a project (to be used for a different purpose), you should rename the pre-existing UDF before importing an SDEF file.

  To store this data in an XER project before you convert it to SDEF, you must create an Activity UDF named STMA. This UDF must have a Data Type of Number. If you do not create this UDF, the STMA field will be blank when you convert an XER file to an SDEF file.
- **Required User-Defined Fields Named Contract Number and Contractor Name**: SDEF files contain fields named Contract Number and Contractor Name. These fields do not exist in XER by default. When converting an SDEF file to XER, if the Contract Number and Contractor Name fields do not exist as user-defined fields in the XER project, they will be automatically created during the import process. If the Contract Number and Contractor Name UDFs were previously defined in a project (to be used for a different purpose), you should rename them before importing an SDEF file.

  To store this data in a project before you convert it to SDEF, create Project UDFs named 'Contract Number' and 'Contractor Name'. These UDFs must have a Data Type of Text. If you do not create these UDFs, the Contract Number and Contractor Name fields will be blank when you convert an XER file to an SDEF file.

  In SDEF files, values in the Contract Number field cannot be longer than six characters. When a Contract Number UDF value is more than six characters, this value is truncated to the first six characters when you convert to SDEF.
- **Suspend and resume dates**: The SDEF standard does not recognize suspend and resume dates, so suspend and resume dates are not exported to SDEF.

Activity Code Structure Requirements

The US Army Corps of Engineers requires all projects to use a predefined activity code structure. This structure specifies the name and maximum length of each activity code in the project. The SDEF format adheres to this structure; therefore, all XER projects being exported to SDEF format must have an activity code structure that exactly matches the predefined structure.

The following table shows the required activity code structure:

Code	Max Length	Description
WRKP	3	Workers Per day

RESP	4	Responsibility
AREA	4	Area
MODF	6	MOD or Claim #
BIDI	6	Bid Item
PHAS	2	Phase
CATW	1	Category of work
FOW	30	Feature of work

Notes:

The Description column is for your information only. XER does not support activity code descriptions, and SDEF does not require them. When creating the activity code structure, you only need to create each code and specify the maximum length. You also need to make sure you define each activity code as a global activity code.

When converted, the code value for the “Feature of Work” activity code displays in the Activity Codes Description column of the XER file, and a unique code value is generated by the converter. For all other activity codes, the code value displays in the Activity Codes Code Value column of the XER file.

Using SDEF Conversion Utilities

This section explains how to:

- Convert XER projects to SDEF files
- Convert SDEF files to XER projects.

Note: In the following tasks, P6 client refers to **P6 Professional**.

Locate the conversion utilities folder here:

- **P6 Professional**:*<local drive>\Program Files (x86)\Oracle\Primavera P6\P6 Professional*
- **P6 Standalone**: *<local drive>\Oracle\Primavera P6\P6 Professional*

Convert an XER Project to SDEF

Complete the following steps to convert an XER project to SDEF:

1) In the P6 client, open the project you want to convert and export it to an XER file.
   For specific instructions on exporting projects to an XER file, refer to the P6 client help.

2) Locate your conversion utilities folder and double-click **XERP330Convert.exe** to run the conversion utility. (If you changed the default installation folder, you will have to locate the file in the location you selected.)
3) In the XER to SDEF Project Conversion dialog, click **Browse** to select the XER file you want to convert to SDEF, then click **Next**.
4) Enter the path and filename for the SDEF file you want to create, then click **Next**.
5) Select the **Don't transfer costs** option if desired, then click **Finish**. The Don't transfer costs option was added to the program for use primarily on cost reimbursement contracts where a firm fixed price does not exist.

When the conversion is complete, the utility creates a log file named [filename]_ConversionFromP3e.log. View the log file to obtain information about the conversion, including problems that were encountered during the conversion.

Convert an SDEF File to an XER Project

Complete the following steps to convert an SDEF file to an XER project:

1) Locate your conversion utilities folder and double-click **P330XERConvert.exe** (If you changed the default installation folder, you will have to locate the file in the location you selected.)
2) In the SDEF to XER Project Conversion dialog, choose SDEF as the conversion type, then click **Next**.
3) Click **Browse** to select the SDEF file you want to convert, then click **Next**.
4) Click **Browse** to select the XER file you want to overwrite or enter a new XER filename, then click **Next**.
5) Click **Finish**.
6) In the P6 client, choose **File, Import**. Follow the wizard prompts to import the XER file.
   For specific instructions on importing XER files refer to the P6 client help.

Once the file is imported, the project is accessible using a P6 client.

Copyright

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