

Oracle
Primavera Cloud
SDEF Conversion Guide

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Oracle Primavera Cloud SDEF Conversion Guide

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About This Guide

This guide explains how to create SDEF files from your Primavera Cloud projects, including information about how to structure data in Primavera Cloud to ensure it is converted correctly to SDEF format.

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.

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 exporting projects to P6 EPPM's Proprietary Exchange Format (XER). You can then convert data between the XER and SDEF formats using the following utilities:

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

To learn how to convert SDEF files to XER, and where to find the utilities, see My Oracle Support article (DOC ID: **902710.1**

(<https://support.oracle.com/epmos/faces/DocumentDisplay?id=902710.1>)).

Use these SDEF conversion utilities 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.

Considerations When Converting a Project to SDEF

Primavera Cloud 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 Primavera Cloud enables you to apply a resource to an activity repeatedly using assignment lags and durations.

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

The following explains what you should expect and how you should structure your data when exchanging projects between Primavera Cloud and SDEF formats.

Restrictions Relating to Fields and Data Types

- ▶ **Activity description:** The SDEF file structure only allows activity descriptions up to 30 characters long. When converting XER files exported from Primavera Cloud 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 Primavera Cloud 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, ensure projects do not contain activity IDs longer than ten characters. If activity IDs must be longer than ten characters in Primavera Cloud, 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:** Calendar names 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. SDEF calculates the cost per unit as the activity's budget cost divided by its budget quantity. The Oracle Primavera SDEF conversion conforms to this standard.
- ▶ **Durations:** The SDEF standard does not support durations longer than 999 days. If your Primavera Cloud 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.
- ▶ **Suspend and resume dates:** The SDEF standard does not recognize suspend and resume dates, so suspend and resume dates are not exported to SDEF.

Data mapping

The following table describes how some XER data is converted to SDEF.

SDEF Field	XER Field or Calculation
Total Qty	Planned Units for the activity assignment.
Cost Per Unit	Planned Cost divided by the Planned Units for the activity assignment.
Qty to Date	Actual Units for the activity assignment.
Activity Cost	Planned 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 Configured Fields for more information.

Required Configured Fields

Some data fields required by the SDEF format do not exist in the XER format by default. You must create these fields as configured fields Primavera Cloud. These configured fields will be exported to user-defined Fields (UDFs) in the XER file.

When converting an SDEF file to XER, if these fields do not exist as UDFs in the XER project, they will be created automatically during the import process. If the configured fields were previously defined in Primavera Cloud (to be used for a different purpose), you should rename the pre-existing configured fields before importing an SDEF file.

When converting an XER file to SDEF, if these fields do not exist as UDFs in the XER, the SDEF fields will be blank when you convert the exported XER file to an SDEF file.

Configured Field Name	Data Type	Description
STMA	Number	The stored material cost data associated with an activity.
Contract Number	Text	The identifying number of the contract. Note This field cannot be longer than six characters. If any values in this field are longer than six characters, the data will be truncated to the first six characters when you convert to SDEF.

Contractor Name	Text	The name of the contractor. Note This field cannot be longer than 36 characters.
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Required Codes

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 Primavera Cloud 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

Note

- 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 an activity code in the workspace to which the project belongs.
 - 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.
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Generating a Project in SDEF Format

Generating an SDEF file from Primavera Cloud is a two-step process. First you must export the project to an XER file, then you can convert the XER to SDEF format.

To export and convert an XER project to SDEF:

- 1) In Primavera Cloud, 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 **Export Oracle Primavera Cloud Data to P6 XML or XER** (https://docs.oracle.com/cd/E80480_01/help/en/user/144609.htm) topic in *Primavera Cloud Help*.
- 2) Double-click **XERP330Convert.exe** to run the conversion utility.
Refer to **SDEF Conversion Utilities** (on page 5) for information about where to get the utility.
- 3) In the XER to SDEF Project Conversion dialog:
 - a. Click **Browse** to select the XER file you want to convert to SDEF, then click **Next**.
 - b. Enter the path and filename for the SDEF file you want to create, then click **Next**.
 - c. Select the **Don't transfer costs** option if applicable, then click **Finish**.

Note The Don't transfer costs option is used primarily on cost reimbursement contracts where a firm fixed price does not exist.

Tip

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

Importing a Project in SDEF Format

Importing an SDEF file to Primavera Cloud is a two-step process. First you must convert the SDEF file to XER, then you can import the XER file into Primavera Cloud. Once the file is imported, the project is accessible using Primavera Cloud.

To convert and import an SDEF file:

- 1) Double-click **P330XERConvert.exe**.
Refer to **SDEF Conversion Utilities** (on page 5) for information about where to get the utility.
- 2) In the SDEF to XER Project Conversion dialog:
 - a. Choose **SDEF** as the conversion type, then click **Next**.
 - b. Click **Browse** to select the SDEF file you want to convert, then click **Next**.
 - c. Click **Browse** to select the XER file you want to overwrite or enter a new XER filename, then click **Next**.
 - d. Click **Finish**.
- 3) Import the XER file to Primavera Cloud.

For specific instructions on importing XER files, refer to the ***Import P6 XML or XER Data into Oracle Primavera Cloud*** (https://docs.oracle.com/cd/E80480_01/help/en/user/191098.htm) topic in *Primavera Cloud Help*.