Primavera v4.1 SDEF Conversion

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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.

Obtaining SDEF specifications

The complete SDEF specification document is available online from the US Army Corps of Engineers' Construction Engineering Research Laboratories homepage. To download the specification, go to **ftp://www.buildersnet.org/SDEFSpecs/**

You can also download the specification from the Corps official library for Engineer Regulation ER1-1-11 dated June 15, 1995, located at **http://www.usace.army.mil/inet/usace-docs/eng-regs/er1-1-11/toc.htm**

Primavera's SDEF Conversion Utilities

In Primavera's Project Management module v4.1 and later, you can exchange project data with other Primavera users by converting projects to Primavera's Proprietary Exchange Format (XER). Using Primavera's import/export capability, you can then convert an XER file to a P3 3.x project or an SDEF data file, and vice versa. Primavera converts data between the XER and SDEF formats using the following utilities:

- P3 3.x or SDEF to XER (P330XERConvert.exe)
- XER to P3 3.x or SDEF (XERP330Convert.exe)

Use Primavera's updated v4.1 SDEF conversion capabilities when you want to:

- exchange project data with contractors and owners who do not use Primavera products.
- exchange project data between P3 3.x and Project Management module users.
- provide project data in the SDEF format whenever required by your contract.

Conversion Considerations

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

Primavera projects intended for use with the SDEF interface should comply with the SDEF specification. You should not utilize the additional capabilities that Primavera offers because the SDEF file structure cannot store the additional data.

The following are items to consider when exchanging data between the XER and SDEF formats:

- **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 descriptions:** 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.
- **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 totals:** The SDEF file structure does not store individual resource budgets as Primavera 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.
- **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. Primavera's SDEF conversion conforms to this standard.
- **Milestones:** The SDEF standard does not recognize milestones as activities. If your Primavera project uses milestones, the converter stores these as zero-duration activities.

- **Calendars:** Calendars in SDEF are only one character; therefore, calendar names from Primavera are truncated to one character. You are limited to 36 calendars in SDEF (A through Z and 0 through 9).
- **Required User-defined Fields (Contract Number and Contractor Name):** SDEF files contain fields named Contract Number and Contractor Name. These fields do not exist in the Project Management module. When converting an SDEF file to XER, if the Contract Number and Contractor Name fields do not exist as user-defined fields (UDFs) in the Project Management module 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 the preexisting UDFs before importing an SDEF file.

  To store this data in a Project Management module project before you convert it to SDEF, you must 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.
- **Required User-defined Field (STMA):** SDEF files store activity stored material cost data in a field named STMA. This field does not exist in Primavera. When converting an SDEF file to XER, if the STMA field does not exist as a UDF in the Project Management module 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 preexisting UDF before importing an SDEF file.

  To store this data in a Project Management module project before you convert it to SDEF, you must create an Activity UDF named 'STMA'. This UDF must have a Data Type of Cost. If you do not create this UDF, the STMA field will be blank when you convert an XER file to an SDEF file.

- **Activity IDs:** The SDEF standard does not support activity IDs longer than ten characters, while Primavera projects may contain activity IDs longer than ten characters. Activity IDs are truncated to the first ten characters when converting a Primavera 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, Primavera projects should not contain activity IDs longer than ten characters. If activity IDs must be longer than ten characters in Primavera, the first ten characters must be unique.
- **Durations:** The SDEF standard does not support durations longer than 999 days. If your Primavera project contains durations longer than 999 days, these durations will convert to zero in the SDEF file.
- **Data mapping:** The following table describes how some Primavera data is converted to SDEF:

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

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 Primavera 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. The Project Management module does not support activity code descriptions. 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.

Note: 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.

Downloading and Using Primavera's SDEF Conversion Update

This section explains how to:

- download the updated SDEF conversion utilities.
- convert Project Management module projects to SDEF files or P3 3.x projects.
- convert SDEF files or P3 3.x projects to Project Management module projects.

Downloading the SDEF Conversion Utilities

Primavera's SDEF utilities are downloadable executables, which can be downloaded from Primavera's Knowledgebase at **http://www.primavera.com**.

You should copy P330XERConvert.exe and XERP330Convert.exe directly to your local machine and overwrite the existing executables in the `c:\Program Files\Common Files\Primavera Common\Convert` folder.

Note: You must have Primavera v4.1 or any v4.1 service pack installed on machines used to convert data between the XER and SDEF formats.

Convert a Project Management Module Project to SDEF

Complete the following steps to convert a Project Management module project to SDEF:

1. In the Project Management module, 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 *Primavera Administrator's Guide*.

2. Double-click XERP330Convert.exe in the `c:\Program Files\Common Files\Primavera Common\Convert` folder to run the conversion utility.
3. In the XER to P3/SDEF Project Conversion dialog, select SDEF as the conversion type, then click Next.
4. Click Browse to select the XER file you want to convert to SDEF, then click Next.
5. Enter the path and filename for the SDEF file you want to create, then click Next.
6. 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 a Project Management Module Project

Complete the following steps to convert an SDEF file to a Project Management module project:

1. Double-click P330XERConvert.exe in the `c:\Program Files\Common Files\Primavera Common\Convert` folder to run the conversion utility.
2. In the P3/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 Project Management module, choose File, Import. Follow the wizard prompts to import the XER file.

   For specific instructions on importing XER files in the Project Management module, refer to the *Primavera Administrator's Guide*.