



▶▶ SSA® Product Data Management 8.0 SP4

Unigraphics NX® Integration Release Notes

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Table of Contents

Chapter 1 Usability and Setup	1-1
Performance considerations	1-1
Unigraphics part cleanup utility	1-2
ug_map.ini no longer used for mapping	1-2
PDF neutral file support with Unigraphics NX	1-3
Download and install the AFPL Ghostscript utility	1-3
Set printer group file	1-4
PDF setup troubleshooting	1-4
Chapter 2 System Requirements	2-1
Hardware and software requirements	2-1
Software component build tracking table	2-1
Chapter 3 New Functionality	3-1
Neutral file generation	3-1
PDF generation	3-1
TIFF Generation	3-2
Chapter 4 SSA PDM - Unigraphics NX Integration Issues	4-1
Closed issues	4-1
Limitations and issues	4-2

About this Guide

This document provides the following information about the SSA PDM 8.0 SP4 release of the integration for Unigraphics NX2, NX3, and NX4:

- Software component builds.
- A summary list of known defects and limitations.

For general release information in the SSA PDM 8.0 SP4 release, please refer to the *SSA PDM 8.0 SP4 Release Notes* (P3604A US).

For an overview of the functionality provided by this release of the SSA PDM Integration for Unigraphics NX, please refer to the relevant user documentation.

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In your e-mail, refer to the document number and title. More specific information will enable us to process feedback efficiently.

Performance considerations

Unigraphics NX generates internal bitmap representations, called thumbnails, of your CAD files. This has a significant impact on the performance of the integration when saving files to SSA PDM.

Turning off internal bitmap generation can reduce the time taken to save files to SSA PDM by up to 50%.

You can disable internal bitmap generation as follows:

- Open the UG-NX `ugii_env.dat` environment file, located in the <UG-NX install Directory>\UGII folder.
- Search for the following line:
- `# UGII_DISABLE_COMPONENT_PREVIEWS=ON`
- Make sure this line is not commented, that is, the `#` symbol must not appear at the beginning of the line.
- If the `#` symbol is present, delete it to turn off internal bitmap generation.

Note

Every time the setting is changed, Unigraphics NX must be stopped and restarted before the change will take effect.

Unigraphics part cleanup utility

You must use the unigraphics part cleanup utility if errors appear such as “Storage Manager out of Memory” when working with Unigraphics NX assemblies while the SSA PDM integration is disabled.

To run the part cleanup utility, proceed as follows:

- Open Unigraphics NX.
- Open the Unigraphics NX part file that requires fixing.
- From the **File** menu, select --> **Utilities** -> **Part Cleanup**.

For details, please refer to your Unigraphics NX user documentation.

If the problem persists, please contact your Unigraphics NX support representative.

ug_map.ini no longer used for mapping

The ug_map.ini file is no longer used for mapping. Until version 8.0 SP3, this file included mapping entries for the following fields:

- Material
- BPDM_Revision
- BPDM_Author
- BPDM_STATUS
- BPDM_CLASSIFICATION

To continue to map these fields, use generic mapping. For further information, refer to the *Unigraphics NX® Integration User's/Administrator's Guide* (U9040A US).

PDF neutral file support with Unigraphics NX

Due to changes between Unigraphics NX2 and NX3, the following instructions must be taken into account when creating PDF neutral files in the Unigraphics NX3 and NX4 integration.

Download and install the AFPL Ghostscript utility

The AFPL version 8.xx of the Ghostscript application can be downloaded from: <http://www.cs.wisc.edu/~ghost/doc/AFPL/index.htm>.

To create PDF neutral files also requires the use of the following environment variables:

- **BPDM_UG_PDF_WRITER_FILE**

This should be set to the full path of the file which converts the postscript file, for example:

```
BPDM_UG_PDF_WRITER_FILE =
[INSTALLDIR]\gs\gs8.xx\lib\ps2pdf.bat.
```

This path cannot contain spaces.

- **BPDM_UG_PDF_UTIL**

This environment variable is required in Unigraphics NX2, NX3, and NX4 to create PDF files.

```
BPDM_UG_PDF_UTIL =
[INSTALLDIR]\gs\gs8.xx\bin\gswin32.exe.
```

This path cannot contain spaces.

Note

The complete path in which Unigraphics NX file is saved and the Unigraphics NX file name should not contain the “.” character when the PDF neutral file is generated.

- **PATH**

The Ghostscript “lib” and “bin” directory locations must be added to your system PATH environment variable, for example:

```
[INSTALLDIR]\gs\gs8.xx\lib
```

[INSTALLDIR]\gs\gs8.xx\bin.
These paths cannot contain spaces.

Set printer group file

You must set the printer group file to point to the printer.txt file. This file is installed as part of the SSA PDM Unigraphics NX3 integration, and is located in:

C:\BPDM_UG_PDF\UGSettings\NX3

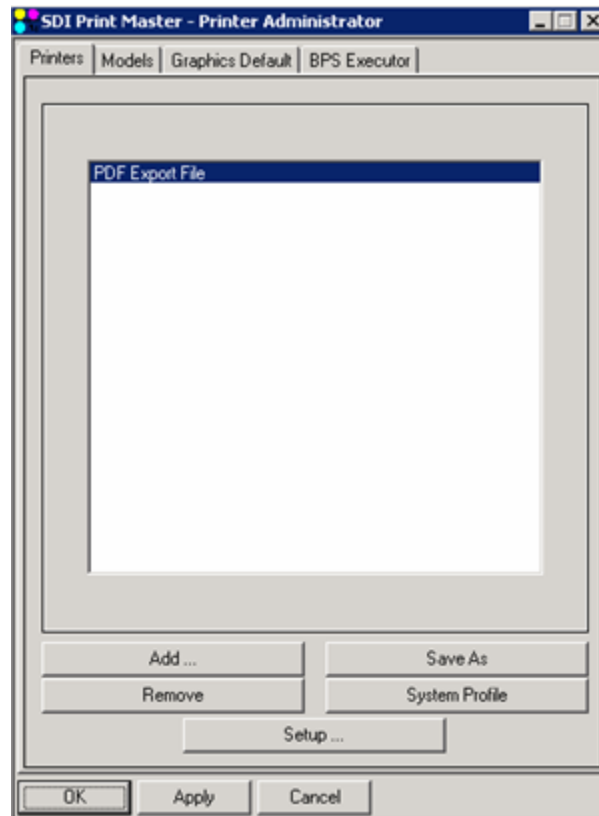
- 1 In Unigraphics NX3 or NX4, in the **File** menu select, **Utilities --> Customer Defaults**.
- 2 Select **Gateway --> Plotting**.
- 3 Select the **General** tab and in the **Printer group list file** attribute, browse to select the printer.txt file from the C:\BPDM_UG_PDF\UGSettings\NX3 directory.

PDF setup troubleshooting

If you experience problems generating PDF neutral files, proceed as follows:

- 1 Restart Unigraphics NX3 or NX4.
- 2 From the **File** menu, select **Utilities --> Printer Administration**.
- 3 Click **Edit Existing** and **Existing Printer Group**.
- 4 Click **OK**.

The **Printer Administrator** dialog box appears with **PDF Export File** displayed as one of the printers, as shown in the following picture.



- 5 Click **Setup...** and check that the path to the pdf_plot.bat file is set to:

C:\BPDM_UG_PDF\UGSettings\NX3\plot\pdf_plot.bat

If the PDF export file does not appear as one of the printers and/or the path to the pdf_plot.bat file is incorrect, please check that:

- The plotter file exists in the C:\BPDM_UG_PDF\UGSettings\NX3\plot directory and that it contains the following line:
 PDF Export
 File:CONNECT_RENDER_EXECUTE:C^\BPDM_UG_PDF\UGSettings\
 NX3\Plot\pdf_plot.bat :100001:::MM:::

Note

After the “C” character, the “^” symbol is used instead of the “:” character in the path.

The path must not contain any spaces.

- The printer.txt file exists in the C:\BPDM_UG_PDF\UGSettings\NX3 directory and that it contains the following lines:

```
GROUP_DIR :C:\BPDM_UG_PDF\UGSettings\NX3\plot  
JOBS_DIR C:\temp\plot  
HOME_DIR C:\temp\plot  
LABEL Printers
```

Note

These paths must not contain any spaces.

- The value of the “BPDM_UG_PLOT_GROUP_DIR” environment variable is set to “C:\BPDM_UG_PDF\UGSettings\NX3\Plot”. This must match the path defined in the printer.txt file.
- The value of the BPDM_UG_PLOT_JOBS_DIR environment variable is set to C:\temp\plot. This directory is used to store the temporary plot jobs files. This must match the path defined in the printer.txt file.
- The value of the BPDM_UG_PS_FILE_PATH environment variable is set to a temporary directory. This directory is used for temporary storage of the postscript files. These are deleted after the PDF file has been generated.
- The value of the BPDM_UG_PLOT_PRINTER environment variable is set to the value defined in the plotters file, that is, PDF Export File.
- The value of the BPDM_UG_PLOT_PROFILE environment variable is set to <System Profile>.

Hardware and software requirements

For details of hardware and software requirements, please refer to the *SSA PDM 8.0 Sizing and Prerequisites Guide*.

Software component build tracking table

Software component	Build/service pack number
SSA PDM Unigraphics NX2 (2.0.6.2_MP4) Integration	Build 196
SSA PDM Unigraphics NX3 (3.0.4.2 MP3) Integration	Builds 193 and 194
SSA PDM Unigraphics NX3 (3.0.0.21) Integration	Builds 193 and 194
SSA PDM Unigraphics NX4 (4.0.0.25) Integration	Build 194
SSA PDM Development Toolkit	Build 124

Note

This was tested with build 2.0.6.2_MP4 of Unigraphics NX2. For Unigraphics NX3, builds 3.0.0.21 and 3.0.4.2 MP3 were tested, and for Unigraphics NX4, build 4.0.0.25 was tested. The integration may encounter problems with other builds because frequently, for new builds the Unigraphics NX APIs are changed, which may cause problems.

This chapter describes the new functionality of the Unigraphics NX integration version 138.187 and upwards.

Neutral file generation

PDF generation

To generate PDF files for drawing sheets, the following options have been introduced:

- Create a single PDF file containing all the sheets of a drawing.
- Create a separate PDF file for each drawing sheet. This applies to drawing documents created in Unigraphics NX3 and NX4.

To select these options, proceed as follows:

- 1 In the **Save** tab of the **SSA PDM Preferences** dialog box, select the **Create neutral File for Drawing** check box.
- 2 In the **File Types** group box, select **PDF**. As a result, in the **PDF Generation for Drawing Sheets** group box, the **Single PDF File** and **Separate PDF File** options become available.
- 3 To generate single PDF files that contain all of the sheets of a drawing, select **Single PDF File**.

- 4 To generate separate PDF files for each drawing sheet of a drawing, select **Separate PDF File**.

The **Save** tab of the **SSA PDM Preferences** dialog box is displayed in the following picture.

TIFF Generation

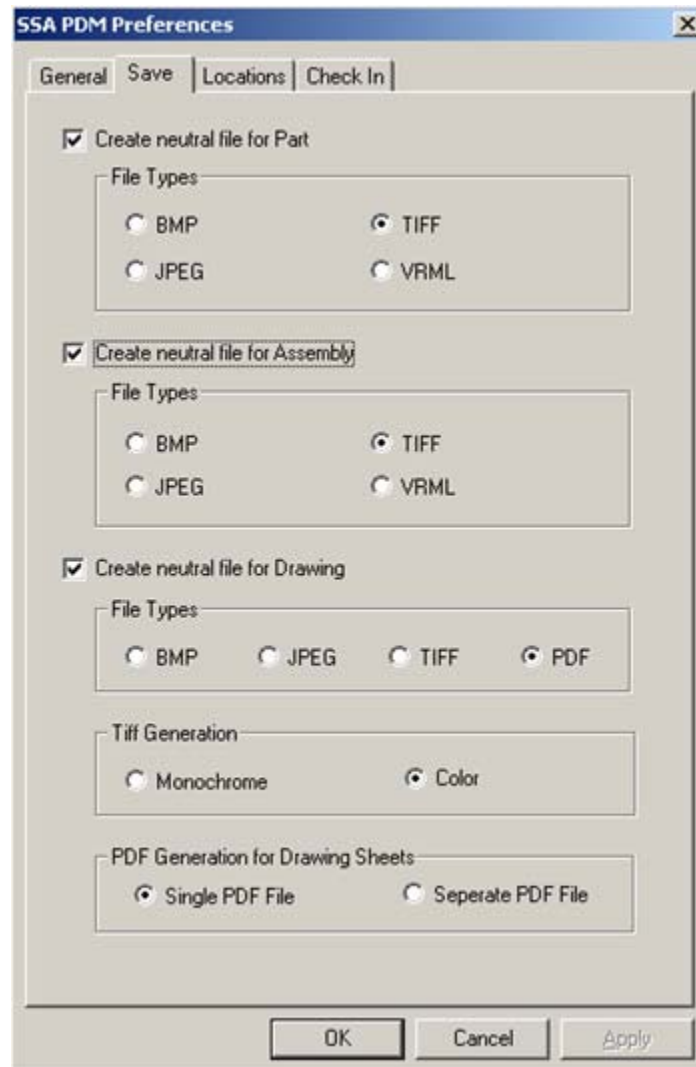
To generate files in neutral formats for part, assembly, and drawing documents, the option to generate color or monochrome files in TIFF format is added.

Note

To enable files to be generated in monochrome TIFF format in Unigraphics NX3, you must complete the setup described in "Set printer group file" and "PDF setup troubleshooting," in chapter 1, "Usability and Setup."

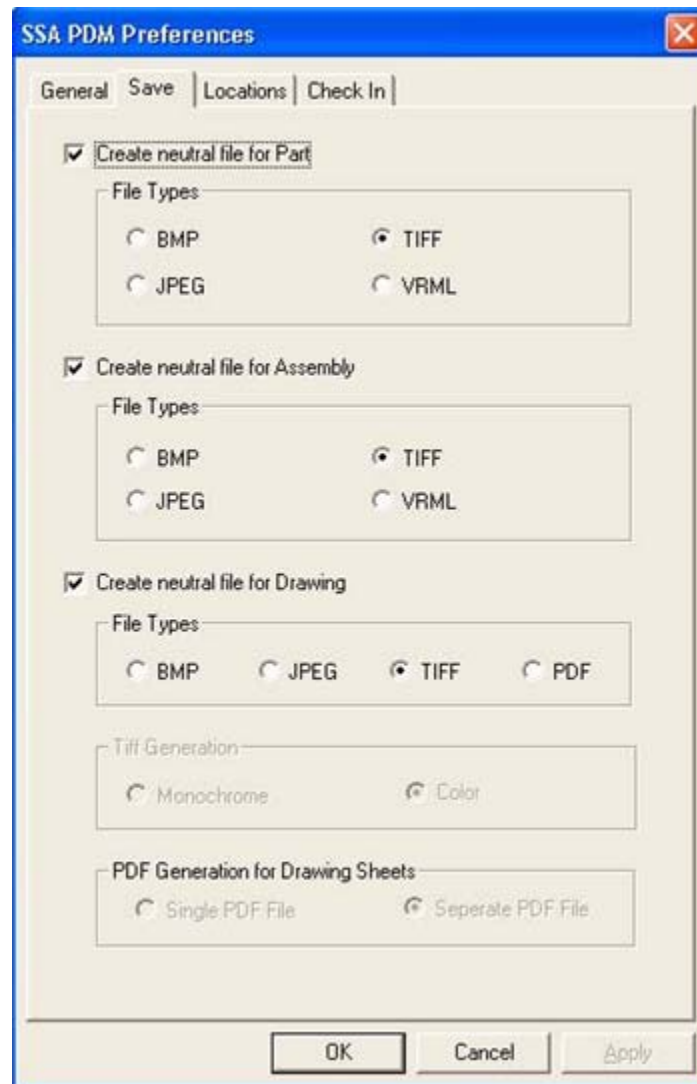
To create neutral files in TIFF format for parts, assemblies, or drawings, in the **Save** tab of the **SSA PDM Preferences** dialog box, proceed as follows:

- 1 Select the **Create neutral file for Part**, **Create neutral file for Assembly**, and/or **Create neutral file for Drawing** as required.
- 2 In the relevant **File Types** group box, select **TIFF**.
- 3 In the **Tiff Generation** group box, select **Color** or **Monochrome** as required.



Note

For Unigraphics NX2, only the color TIFF format is supported. Therefore, in the Unigraphics NX2 integration, the **SSA PDM Preferences** dialog box looks as displayed in the following picture.



Chapter 4

SSA PDM - Unigraphics NX

Integration Issues

4

Closed issues

Functional Area	SSA Support System/ Internal ID	Description
Top down load	Inquiry 404771	The Top Down Load command opens parts in Unigraphics NX using inches to show the part dimensions.
	Request PLM-00000-00324	This problem is now resolved
Edit file in integration	Inquiries 382738, 316521, 299045	If the user opens a part in SSA PDM by means of the Edit File in Integration command and SSA PDM finds identical parts in the user's local folders, SSA PDM asks the user whether or not to overwrite the local parts.
	Request PLM-00000-00290	The user is now enabled to select No to All , so that none of the local files are overwritten.

Functional Area	SSA Support System/ Internal ID	Description
Log file	Internal	The toolkit log file did not support unicode characters. It is now changed in order to use the binary unicode format. As a result, all character types are supported.

Limitations and issues

Functional Area	ID	Description
Unigraphics NX2 incompatible with Windows 2000		Due to a defect in a Unigraphics NX2 API, the Unigraphics NX2 version of the integration is only available for Windows XP. It will not work correctly on Windows 2000.
Loading the SSA PDM integration toolbar in Unigraphics NX3		<p>Due to a technical limitation, the SSA PDM toolbar does not appear when Unigraphics NX3 is launched for first time.</p> <p>To display the SSA PDM toolbar, in Unigraphics NX, select Customize from the Toolbar menu and select the check box for displaying the SSA PDM toolbar.</p> <p>You must do this only once for each of the following: part, assembly and drawing.</p>

Functional Area	ID	Description
Design variant regeneration support in Unigraphics NX2		<p>An issue currently exists with design variant regeneration for assemblies of more than 100 MB that include hundreds of parts.</p> <p>As a temporary precaution, a setting has been created to allow design variant regeneration to be switched on and off as required. By default, design variant regeneration is disabled.</p> <p>To enable design variant regeneration, an empty text file named DVpresent.txt must be placed in the c:\temp directory.</p>
Neutral file creation	3764	Neutral files are only created for the assembly or part file being directly saved to SSA PDM.
Opening a part that is already loaded	5507	The integration cannot open a part from SSA PDM in Unigraphics NX if a local copy of the part being opened is currently loaded in Unigraphics.
Edit and view in integration	12966/ 19385	<p>Due to a limitation in Unigraphics NX, if Unigraphics NX is not connected to SSA PDM, clicking Edit File in Integration or View File in Integration in SSA PDM will not open the selected file in Unigraphics NX. To open the selected file in Unigraphics NX, the user must click the SSA PDM connect icon in Unigraphics NX.</p> <p>In addition, if you do not connect to SSA PDM, each time you use the Edit File in Integration or View File in Integration in SSA PDM results in the activation of a new instance of Unigraphics NX.</p>

Functional Area	ID	Description
Modification of assembly variant file	13734	<p>If a component of an <i>open</i> assembly design variant file is modified, the assembly design variant file is flagged as modified by Unigraphics NX. As a result, a message appears saying that the assembly design variant file has changed and must be saved. However, because the assembly design variant file is read-only, the user can only perform a “save as” operation.</p> <p>This only occurs if the assembly design variant file is open when one of its components is modified. To avoid this, users should ensure that the parent assembly design variant file of components being modified is closed before modifying the component.</p> <p>This is standard Unigraphics NX behavior, independent of the integration.</p>
Linking design Variants to UNDER_CHANGE items	13735	<p>Users must not link the default design variant to the UNDER_CHANGE revision of an item. Doing so results in an error message indicating that the related details in the design variant table will be removed the next time the design variant is checked out.</p> <p>This message is incorrect, because the information is not removed.</p> <p>However, when this action involves a design variant other than the default, the information is removed from the design variant table.</p>

Functional Area	ID	Description
Balloon/find numbers and leading zeros	Doc#303	<p>SSA PDM find numbers that are derived from balloon numbers defined in Unigraphics NX are always saved without leading zeros.</p> <p>If find numbers are also created in SSA PDM, where leading zeros are maintained, you can end up with find numbers that are different only because of leading zeros, for example 99 and 0099.</p>
Configuration specific mapping reserved names	16932	Users should not define configuration specific mapping for the following attributes: Item_ID, Revision and Status. These are reserved for internal use by the application.
Mapping and template associations	17677	Sometimes, the association between a file and the related mapping template is lost. To resolve this problem, the association between the file and the template should be removed and then restored.
Mapping	17746 17747 17761	<p>It is not possible to map configuration specific attributes.</p> <p>Volume and area property attributes cannot be mapped.</p> <p>File specific attributes cannot be mapped.</p>
Environment variable name change	Doc#457	The environment variable BPDM_CAD_TRACE has been renamed BPDM_UG_CAD_TRACE.

Functional Area	ID	Description
Mapping boolean values.	19484	<p>It is not possible to map any boolean attribute of PDM to a custom attribute in Unigraphics NX.</p> <p>To allow mapping of boolean values, you must add the following line to the cfeMappingTool.xml file:</p> <pre><MAP FROM="Boolean" TO="Boolean" ALLOWED="1" /></pre> <p>The cfeMappingTool.xml file is located in:</p> <p>SSA_PLMClients\Config\Settings\</p>
Mapping Unigraphics NX dimension values.	19548	<p>The value of the Dimensions attribute in Unigraphics NX is always returned to the SSA PDM integration as a type string.</p> <p>This means that you cannot map dimensions from Unigraphics NX to a numeric field in SSA PDM, you can only map dimensions to an SSA PDM string field.</p>
Top down load	19397	<p>The Excel report file contains the following entry after successfully performing top down load:</p> <pre>"#ERROR CAD API Init returned fault(hr = 0)"</pre> <p>The same message appears if an error occurs, but the hr value is then set to a non-zero value.</p>
Top down load	14735	<p>The Unigraphics NX application opens for a second time if you use the Top Down Load command while Unigraphics NX is opened already.</p>