SmartPlant Interop Publisher
Installation and Setup Guide

PROCESS, POWER & MARINE

Version 2015 R1

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PART OF HEXAGON

INTERGRAPH®

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Preface SmartPlant Interop Publisher Installation Guide

This document is an installation guide for Intergraph® SmartPlant® Interop Publisher. The purpose of this document is to explain how to install and configure SmartPlant Interop Publisher and all necessary prerequisite software. The SmartPlant Interop Publisher (SPIOP) application provides a single solution to translate 3D model data from Intergraph and third-party sources for display in Intergraph Smart™ 3D, SmartPlant Review, and SmartPlant Foundation applications.

IMPORTANT This document does not cover basic Windows Server, Windows 7, Windows 8, Oracle© or Microsoft SQL Server operation. Refer to those products' printed documentation for basic operation information.

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Documentation Comments

For the latest support information for this product, comments or suggestions about this documentation, and documentation updates for supported software versions, please visit *Intergraph Smart Support* (*https://smartsupport.intergraph.com*).

What's New: SmartPlant Interop Publisher

Version 2015 R1

- After installation, upgrade your site database and projects to the current version. For more information, see *Upgrade Site Databases and Projects* (on page 20) and Upgrade a project.

- You can schedule translation, publish, and Smart Model update operations once or on a recurring basis. For more information, see Schedule Jobs.

- SmartPlant Interop Publisher performs scheduled translation and Smart Model update operations only if the associated source files have been changed. This allows you the flexibility to schedule recurring jobs with SmartPlant Interop Publisher making efficient use of system resources. For more information, see Schedule a translation job and Schedule a Smart Model update job.

- SmartPlant Interop Publisher supports the following SQL Server operations:

  - Remote SQL server access is provided for a multi-user environment.

  - All databases are created with SQL server data and log path settings by default. However, you can specify an alternate location for each data and log file. These locations and the database name are listed in the **Projects** grid.

- The following options have been added to the **Translation Settings** dialog box:

  - MicroStation: The **Keep construction text** option has been modified to **Keep construction elements**. This option allows you to turn on and off the translation of construction geometry.

  - PDMS: The **Conduit Specs** option allows you to filter conduit specifications.

  For more information, see MicroStation options and PDMS options.

- Civil objects such as trench runs, trench features, and trench parts in models are now supported. The required class, interface, and property information for civil objects has been added to the SmartPlant Interop Publisher (SPIOP) schema, and the Smart 3D default mapping files provided with SmartPlant Interop Publisher have been updated.

- SmartPlant Interop Publisher supports the creation of Smart Drawings. A Smart Drawing contains data and 2D graphics that are translated from Smart 3D-generated orthographic and isometric drawings. When you create a Smart Drawing in SmartPlant Interop Publisher, the graphics and data are extended so that they can be published to SmartPlant Foundation. You can publish Smart Drawings without revising them. For more information, see Drawings View and Use Drawing Source Files.

- You can show or hide columns in the **Source Files** and **Smart Models** grids in the **Models** view. For more information, see Customize the Views.

- The **IOP Home** button has changed and you can now click on the button to access the **Home** menu. For more information, see IOP Home menu.

- The **Open File Location** command has been added to the shortcut menus in the **Source Files** and **Smart Models** grids so that you can immediately go to the location of a selected file. For more information, see Open file locations.

- The CADWorx 2014 Plant Object Enabler utility is included in the SmartPlant Interop Publisher DVD. This utility allows you to view CADWorx Plant 2014 components stored in an AutoCAD drawing (.dwg) file. For more information, see the *Requirements* section in the *SmartPlant Interop Publisher Installation and Setup Guide* and also Supported 3D Model Formats: What source files can I use?.

- SmartPlant Interop Publisher can translate the PDMS DATAL format for the Intergraph target applications. For more information, see Define Translation Settings and Translate PDMS source files.

- For .rvm files created from PDMS 12.0 SP5 or later, obstruction objects are translated as transparent if they are exported with **Representation** enabled. For more information, see PDMS options.

- In the error message display, click on blue Information icon to see additional information about the error and possible ways to resolve it. For more information, see Status and Error Messaging.

- For generic mapping, if you have used the GenerateMapping tool to generate a GenericToR3DMapping.xls file, SmartPlant Interop Publisher recognizes the existing mapping file and appends any new classes and properties from the input .drv files to this mapping file. The existing GenericToR3DMapping.xls file must be in the output folder you designate when using the GenerateMapping tool. For more information, see Use the GenerateMapping tool.

- SmartPlant Interop Publisher includes a **PDS 3D** setting for configuring the translation of PDS-published and PDS legacy source files to Smart Models. The PDS-published source files are .zvf, .xml, and .xrg files. The PDS legacy files are .dgn and .drv files in which you can define nozzle-to-equipment, and pipe parts-to-pipeline relationships. For more information, see PDS 3D options.

- SmartPlant Interop Publisher has been integrated with the Intergraph SmartPlant Fusion product so that you can translate source files and then use SmartPlant Fusion to publish them. For more information, see Supported 3D Model Formats: What source files can I use? and Use 3D Model Source Files.

- A .vue source file with a supporting property data .mdb2 file is identified in the **Source Files** grid with the **Source File Type** specified as **Intergraph Visualization File**. Previously, the source file type was listed as **SPRDirect** for .vue source files. For more information, see Source Files Grid (Models View) and Supported 3D Model Formats: What source files can I use?.

- A new worksheet has been added to the PDMSToR3DMapping default and custom mapping files to provide equipment nozzle properties. This new worksheet allows you to get additional nozzle properties from your PDMS catalog so that they are available in the translated Smart Model. For more information, see Create a custom mapping of PDMS equipment nozzles.

- For the SmartPlant Review target application, the **Keep Project Database** option allows you to update Smart Model object data without overwriting the project database (.mdb) file that is generated by the initial translation. SmartPlant Review uses this project .mdb file to store features and settings such as display set definitions, measurements, animations, and so

forth. If this option is not checked, the project database file gets overwritten. For more information, see Update Smart Models.

- Mechanical Computer-aided Design (MCAD) support:

  - Install the Mechanical Computer-aided Design (MCAD) module to translate source files from third party MCAD applications. The MCAD module provides defeaturing translation settings that allow you to simplify your model for loading and reviewing in the Intergraph target applications. For more information, see Translate MCAD files with defeaturing options and Mechanical CAD (MCAD) defeaturing options.

  - SmartPlant Interop Publisher supports MCAD assemblies. You can select only the required assembly files for translation. For more information, see Define Translation Settings and Translate MCAD assembly files.

  - SmartPlant Interop Publisher supports translation of property data from MCAD CATIA and NX formats. Document level (part and assembly) and Instance level user-defined properties are supported. Feature or body level user-defined properties are not supported. Default and custom mapping spreadsheet files have been added to support CATIA and NX MCAD data translation.

- SmartPlant Interop Publisher supports the graphic translation for Parasolid files (.x_t,.x_b,.xmt_txt,and .xmt_bin). For more information, see Supported 3D Model Formats: What source files can I use?.

- A command line argument text box has been added to the MicroStation translation settings. This allows you to enter MicroStation-specific arguments to further refine the translation of .dgn source files.For more information, see MicroStation options.

- SmartPlant Interop Publisher no longer requires multiple licenses to translate a .dri file containing .dgn or .rvm files. You can have a single license for .dri file translation. For more information on translating, see Translate to Smart Models.

- SmartPlant Interop Publisher can translate source files that are in read-only folders.

- Generated .drv files are now placed in the [*Smart Model Location*]\Supporting Files folder. For more information on translating, see Translate to Smart Models.

- You can create a Smart Model for one or all design models in a MicroStation V8 .dgn file. SmartPlant Interop Publisher provides options in the MicroStation translation settings that allow you to:

  - Translate the active design model in a V8 .dgn file,

  - Translate the individual design models in the V8 .dgn file to create separate Smart Models.

  - Translate all design models in the V8 .dgn file into one Smart Model.

  For more information, see MicroStation options.

- You can select and edit just one project at a time in the **Projects** view. Also, the toolbar and shortcut menu commands in the **Projects** view are available or enabled when specific conditions are met. For example, if you select a 2014 or 2014R1 project in the grid, the **Upgrade** command is enabled and the **Register**, **Project Settings**, and **Translation Settings** commands are not available. For more information on projects, see Organize Your Work with Projects and Projects View.

- An **Occlusion** translation setting reduces the translated model size by removing internal objects, or any blocked objects that are not visible from the outside. You can   use hardware

acceleration to perform occlusion during model translation. For more information, see Define Translation Settings.

- The **Occlusion** translation setting, along with general graphic options, have been grouped together in a **Common** translation section. Common translation options can be applied to all file formats you are using. The following options have been moved from **Project Settings** to the **Common** page in the **Translation Settings** dialog box:

  - **Keep lines and line strings**

  - **Turn on validation**

  For more information, see Define Translation Settings.

- The **Translate** view has been renamed to the **Models** view. For more information about this view, see Models View.

Welcome to SmartPlant Interop Publisher

The SmartPlant Interop Publisher (SPIOP) application provides a single solution to translate 2D drawings and 3D model data from Intergraph and third-party sources. You can take the translated 3D model data and display it in Intergraph Smart™ 3D, SmartPlant Review, and SmartPlant Foundation applications. For translated 2D drawings, you can publish and review them in SmartPlant Foundation. You can translate data from a variety of sources such as PDMS, Tekla, AutoCAD, or MicroStation files.

SmartPlant Interop Publisher provides the following key features:

- Local and remote SQL server access offers a multi-user environment. Multiple users can work on the same projects at the same time.

- You can run translations immediately or schedule translations to run at later, timed intervals.

- Use projects to organize your work and register into SmartPlant Foundation.

- Attach as a reference model and then position, rotate, and scale it to the active plant so that you can:

    - View the reference model data graphically and model against it.

    - Use multiple reference files from different sources.

- Translate a variety of common formats so that the resulting property labels are common in all Intergraph applications.

- Scale and position models relative to the active plant so that you can attach the reference model as required in Smart 3D. In an environment using Smart 3D and SmartPlant Review, you can change the position in one application and see the results in the other applications.

- Extend the delivered Smart 3D mapping to support custom classes, interfaces, and properties.

- Create viewable files of common plant formats for reviewing separately or as a composite. For example, you can merge a PDS and a Smart 3D project into the same viewing session.

- Use a disconnected workshare. Because the software translates the data to files at the source site and attaches them as a reference at the target site, live connection between the databases is not required. Periodic publish and update of the Smart Models allows multiple partners to work on a joint venture product.

- Maintain better security in joint venture projects. Network connectivity is not required. You can transfer the translated files using any appropriate method.

- Design projects in parallel. If a project has many similar units, only one unit has to be modeled and translated. This translated unit can then be attached multiple times with the required positioning.

Supported Model Source Formats and Requirements

General Summary

▪ MicroStation is required for any non-V7 format DGN files.

▪ SmartSolids contained in the MicroStation V8 files are also supported and translated. To *open MicroStation V8 projects in SmartPlant Interop Publisher, you must have MicroStation V8 installed on the client system.*

▪ MicroStation V8i SS3 and RealDWG 2013 SP1 are required for DWG files containing proxy objects.

Supported Formats

The following tables list the source files of Intergraph and the main third-party authoring tools supported by SmartPlant Interop Publisher. The **Source Files** column in each table lists the graphics or data and graphics file combinations used for translation. The **Notes/Requirements** column lists any information or requirements specific to a format type.

Intergraph Products	Version	Source Extension	Notes/Requirements
CADWorx Plant Professional, CADWorx Equipment	2015	.dwg	For .dwg files containing proxy objects, the following software is required: MicroStation V8i and RealDWG 2013 SP1 ▪ Install and activate MicroStation V8i SS3, and then install RealDWG 2013 SP1 to translate any proxy objects inside these files. For normal AutoCAD entities, the presence of MicroStation is ignored. However, if the file contains at least one proxy object and MicroStation V8i is installed, translation is done using MicroStation. CADWorx Plant 2014 Object Enabler: ▪ For CADWorx data, you must install the CADWorx Plant 2014 Object Enabler to view CADWorx Plant 2014 components stored in an AutoCAD drawing (.dwg) file. You can install the utility from the SmartPlant Interop Publisher DVD (Prerequisite Software), or go to the Intergraph Smart Support website and download this executable from CADWorx Freeware Tools and Utilities. SmartPlant Interop Publisher supports AutoCAD 2014 or earlier .dwg files. You can use CADWorx 2015 SP1 to export .vue and .mdb2 files that can be opened in SmartPlant Review.
CAESAR II	5.1 - 2014 SP1 (7.0) and later	.mdb	

Intergraph Products	Version	Source Extension	Notes/Requirements
Isogen® (IDF, PCF), SmartPlant Spoolgen, SmartPlant Isometrics	2014 R1 and earlier	.idf, .pcf, .idf	
PDS, FrameWorks® Plus	V7	Graphics: .dri, .dgn, .prp Data: .drv, .lin,.sld and .nmg	The .prp file can have accompanying data file types: .lin,.sld and .nmg.
Smart 3D (3D Model	2014 R1 and earlier using 3D Model Data Drawing	Graphics: .vue Data: .xml	Data is translated based on the P3DComponent.xml schema file and the RelationshipMapping.txt file.
Smart 3D SPRDirect	v2009.1 and later	Graphics: .vue Data: .mdb2	

Third Party Products	Version	Source Extension	Notes/Requirements
ACIS - Design model data from products such as AutoCAD Inventor, Creo, JT Open, Solid Edge, and SolidWorks	ACIS R25 and earlier	.sat	▪ The size of the SAT file to be translated should not exceed 2 GB. ▪ Graphics only.
AutoCAD	2014 and earlier	.dwg, .dxf	MicroStation V8i and RealDWG 2013 SP1 are required for DWG files containing proxy objects. ▪ Install and activate MicroStation V8i, and then install RealDWG 2013 SP1 to translate any proxy objects inside these files.
AutoPlant - SmartPlant Interop Publisher supports versions that can export .dwg, .dgn, and i.dgn files.			MicroStation V8i SS3 and RealDWG 2013 SP1 are required for AutoPLANT graphics files. ▪ Install and activate MicroStation V8i. Then download and install install RealDWG 2013 SP1 to translate any proxy objects inside the graphics files. ▪ Source files must be exported from AutoPlant using the Project Packager utility.

Third Party Products	Version	Source Extension	Notes/Requirements
CATIA	V5 (R8–R24) and V6 (V6 R2014x).	.CATPart, .CATProduct	For CATIA V6, you must export your database objects as CATIA V5 CATParts and CATProducts. You must have an MCD license and the Intergraph MCAD module installed with SmartPlant Interop Publisher to translate MCAD source files. You can set defeaturing options to reduce model complexity. For more information, see Define Translation Settings and Mechanical CAD (MCAD) defeaturing options. Graphics and data. Document level (part and assembly) and Instance level user-defined properties are supported. Feature or body level user-defined properties are not supported.
CIS/2 (design model data from products such as SDS/2, StruCAD, Tekla Structures, and ProSteel, among others)	203, 214	.stp, .step	Where possible, we recommend using the IFC format for data exchange. For more information on CIS/2 supported entities, see CIS/2 Entities and Cross-Section Data.
CREO Parametric (formerly Pro/Engineer), Siemens	16 - Creo 3.0	.prt, .prt.*, .asm, .asm.*	You must have an MCD license and the Intergraph MCAD module installed with SmartPlant Interop Publisher to translate MCAD source files. You can set defeaturing options to reduce model complexity. For more information, see Define Translation Settings and Mechanical CAD (MCAD) defeaturing options.
IGES (products that export IGES)	5.3 and earlier	.igs, .iges	The size of the file to be translated should not exceed 2 GB. Graphics only.
i-model	MicroStation V8i SS3 and earlier	.i.dgn	
Industry Foundation Classes (IFC)	2x3_TC1 schema version	.ifc	This is the recommended data exchange format for reading SDS/2, Tekla, and Revit projects. SmartPlant Interop Publisher only supports IFC 2x3_TC1 schema.
Inventor	V11 - 2015	.ipt, .iam	You must have the Intergraph MCAD module and MCD license installed with SmartPlant Interop Publisher to translate MCAD source files. You can set defeaturing options to reduce model complexity. For more information, see Define Translation Settings and Mechanical CAD (MCAD) defeaturing options.

Third Party Products	Version	Source Extension	Notes/Requirements
MicroStation J	V07.01.05.03 V07.02.00.00 (Required for supporting Smart Solids display)	.dgn	In the MicroStation **Translation Settings**, you can turn on the **Change SmartSolids to surfaces for V7 DGN files** option.
MicroStation V8:	V8.05	.dgn, .dtm	MicroStation V8 and later
MicroStation XM	V8.09	.dgn, .dtm	
MicroStation V8i	V8.11.09	.dgn, .dtm	MicroStation V8i SS3 and earlier
NX	NX 1 - NX 9	.prt	You must have the Intergraph MCAD module and MCD license installed with SmartPlant Interop Publisher to translate MCAD source files. You can set defeaturing options to reduce model complexity. For more information, see Define Translation Settings and Mechanical CAD (MCAD) defeaturing options. Graphics and data. Document level (part and assembly) and Instance level user-defined properties are supported. Feature or body level user-defined properties are not supported.
Parasolid	9.0 – 27.0	.x_t, .xmt_txt, x_b, .xmt_bin	You must have an MCD license and the Intergraph MCAD module installed with SmartPlant Interop Publisher to translate MCAD source files. You can set defeaturing options to reduce model complexity. For more information, see Define Translation Settings and Mechanical CAD (MCAD) defeaturing options.
PlantSpace	V8.05, V8.09, and V8.11.09	.dgn	
PlantSpace	AutoCAD 2014	.dwg	
PDMS	V12.1 and earlier	Graphics: .rvm (Binary only) Data: .att/.datal	When there is an .att and .datal file, SmartPlant Interop Publisher uses only the .att file. If the .rvm and .datal are used, not all objects can have properties. You might have to go back to your PDMS application and ensure that tags are written for all objects in the .datal file.

Third Party Products	Version	Source Extension	Notes/Requirements
ProStructures	v8i SELECTseries 6	.dwg, .dgn, .dxf	MicroStation V8i SS3 and the ProStructures v8i SELECTseries 6 plugin are required for ProStructures graphics files. ▪ Install and activate MicroStation V8i. Then download and install ProStructures v8i SELECTseries 6 plugin to translate any ProStructures proxy objects inside the graphics files.
Solid Edge	V18 - ST7	.par, .asm, .psm	You must have an MCD license and the Intergraph MCAD module installed with SmartPlant Interop Publisher to translate MCAD source files. You can set defeaturing options to reduce model complexity. For more information, see Define Translation Settings and Mechanical CAD (MCAD) defeaturing options.
SolidWorks	2003 - 2014	.sldprt, .sldasm	You must have an MCD license and the Intergraph MCAD module installed with SmartPlant Interop Publisher to translate MCAD source files. You can set defeaturing options to reduce model complexity. For more information, see Define Translation Settings and Mechanical CAD (MCAD) defeaturing options.
Speedikon, Tribon M2 / M3 - SmartPlant Interop Publisher supports versions that can export MicroStation .dgn files.			MicroStation V8i SS3 and RealDWG 2013 SP1 are required. MicroStation v8i SS3 must be installed and activated.
Tekla , StruCAD, Xsteel, SDS/2, Autodesk Revit, ProSteel	IFC: 2x3_TC1 schema version	.stp, .step, .ifc	For more information on CIS/2 supported entities, see CIS/2 Entities and Cross-Section Data. We recommend using the IFC format for data exchange. To find the schema version of an .ifc file, open the file in any text editor such as Windows Notepad, and check the FILE_SCHEMA version listed in the File Header section. For IFC files that are supported by SmartPlant Interop Publisher, the File Header has the FILE_SCHEMA(('IFC2X3')); entry. For more information, see Translate IFC source files.
XMpLant - SmartPlant Interop Publisher supports versions that can export .xml files.			Supports xml files that have the root node as "PlantModel".

See Also

SmartPlant Interop Publisher Requirements (on page 17)

Supported Drawing Source Formats and Requirements

SmartPlant Interop Publisher can work with orthographic and isometric drawing (.sha and .xml) files created in the Smart 3D Drawings and Reports task.

General Requirements

SmartPlant Interop Publisher and drawing source file translation require:

- SmartPlant License Manager (SPLM) Client 2010 and 2012; Server 2012 (depending on the SmartPlant Foundation setup)

- SmartPlant Interop Publisher translation license (SRP)

Products	Version	Source Extension	Notes
Smart 3D	2011 R1 - 2014 R1	.sha, .xml	Orthographic and isometric drawings files generated from the Smart 3D Drawings and Reports task.

For **Isometric Drawings, Composed Drawings,** or **Volume Drawings i**n Smart 3D, use the **SmartPlant Foundation (*.xml)** target file type to generate an .sha file and two XML files; an .xml data file and an .xml metadata file. The data .xml file is named ToolData_<*Drawing Name*>. The metadata file is named MetaData_<*Drawing Name*>. You can then add the .sha file in SmartPlant Interop Publisher for translation and publish to SmartPlant Foundation. For more information on generating the .sha and .xml files in Smart 3D, refer to the **Save as SmartPlant Foundation (*.xml)** topic in the *Smart 3D Reports User's Guide and Online Help.*

SmartPlant Interop Publisher Requirements

Hardware and Software Recommendations

- Intel Core i7 Processor or equivalent
- 8 GB RAM
- DVD drive access, either locally or through a network connection
- 400 MB minimum free disk space

Supported Operating Systems

- Microsoft Windows Standard/Datacenter Server 2012 (R2) (64-bit)
- Microsoft Windows 7 Professional and Enterprise Client (64-bit)
- Microsoft Windows 8.1 Professional and Enterprise Client (64-bit)

Licensing

- SRP - SmartPlant Interop Publisher translation license. You can purchase a single translation license, which enables the sequential translation of source files, or you can purchase multiple licenses to support concurrent translations. Contact your Intergraph Consultant for more information.
- SIP - SmartPlant Interop Publisher Adaptor-to-SmartPlant Foundation. In addition to translation, this license provides functionality to register, revise, and publish to a SmartPlant Foundation site.

  If you purchase a SIP license, SmartPlant Foundation, SmartPlant Client, and the SmartPlant Client Schema Component are supported.
- MCD - Mechanical Computer-Aided Design (MCAD) module license. This license is required if you purchase the MCAD module for SmartPlant Interop Publisher.
- SmartPlant License Manager:
  - Client 2010 and 2012
  - Server 2012 (depending on your SmartPlant Foundation setup)

Scheduling

- Intergraph Batch Services 2010 SP1 HF 06.01.09.00.

Software Compatibility

For the most current information on SmartPlant Interop Publisher and supported products, see the *PPM Compatibility Matrix - Product Report* on Intergraph Smart Support:

https://smartsupport.intergraph.com. Go to the website and type your Smart Support user name and password. From the **View Downloads** page, click the **Product Compatibility** link. Select **SmartPlant Interop Publisher**, and then the version number.

- Intergraph target applications:

    - Smart 3D 2011 R1 (HF 43), 2014 (HF 23), and 2014 R1

    - SmartPlant Review 2014 R1 and 2015 R1

    - SmartPlant Foundation/SmartPlant Client/SmartPlant Client Schema Component: 2014 R1(5.1) and 2014 R2 (5.2)

- Alias ISOPAC 2.x (included with SmartPlant Interop Publisher)

- Citrix XenApp 7.6 and XenServer 6.5

- Microsoft Office 2010 SP1 or later (32- and 64-bit)

- Microsoft SQL Server 2008 SP3 Express Edition (64-bit)
  Microsoft SQL Server 2008 SP3 Standard Edition (64-bit)
  Microsoft SQL Server 2008 SP3 Enterprise Edition (64-bit)
  Microsoft SQL Server 2012 SP2 Express Edition (64-bit)
  Microsoft SQL Server 2012 SP2 Standard Edition (64-bit)
  Microsoft SQL Server 2012 SP2 Enterprise Edition (64-bit)
  Microsoft SQL Server 2014 SP2 Express Edition (64-bit)
  Microsoft SQL Server 2014 SP2 Standard Edition (64-bit)
  Microsoft SQL Server 2014 SP2 Enterprise Edition (64-bit)

- Microsoft Visual C++ Redistributable Packages:

    - Microsoft Visual C++ 2008 SP1 (32-bit)

    - Microsoft Visual C++ 2010 SP1 (32-bit)

    - Microsoft Visual C++ 2013 with Update 2 (32-bit)

- Microsoft Data Access Components (MDAC) 2.8.1 (Available on the product CD.)

    IMPORTANT If you are running SmartPlant Interop Publisher on a non-English operating system and locale, you must download the appropriate locale-specific version of the Microsoft Data Access Components (MDAC) from Microsoft. SmartPlant Interop Publisher might not work correctly with multi-byte characters when using the English version of MDAC.

- Microsoft .NET Framework 4.5.1 (Installed during SmartPlant Interop Publisher installation)

- Microsoft Internet Explorer 7.0 or later (Required for viewing the online documentation delivered with the software.)

- A PDF reader (Required to view the License Agreement and printable guides.)

System Permissions

You must have administrator privileges to install SmartPlant Interop Publisher. Administrator privileges are not required to translate files.

How Do I Upgrade My Current Version?

If you already have a version of SmartPlant Interop Publisher, perform the following processes in the listed order:
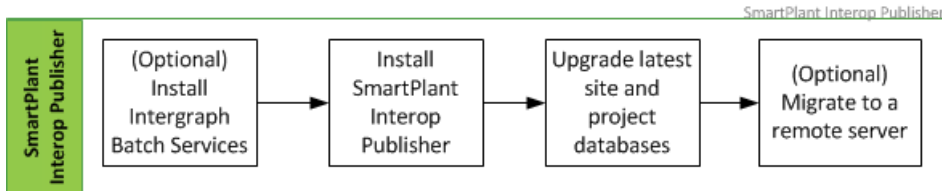
1. (Optional) If you require scheduling, install Intergraph Batch Services. After installation, you must set up batch services to work with SmartPlant Interop Publisher. For more information, see *Configuring Batch Services* (on page 41).

2. *Install Your New SmartPlant Interop Publisher* (on page 19). Run the SmartPlant Interop Publisher installation program from the delivered media.

3. Upgrade Site and Project Databases. Upgrade the SmartPlant Interop Publisher site databases and projects.

4. *Migrate a Database Server (Local to Remote)* (on page 24). This step is optional to migrate your local server to a remote, multi-user server.

If you are a first-time user, follow the instructions in the next section *How Do I Install for the First Time?* (on page 26).

See Also
SmartPlant Interop Publisher Requirements (on page 17)

In This Section

Install Your New SmartPlant Interop Publisher

1. If you have not installed and configured SmartPlant License Manager on your workstation, we recommend doing so before installing SmartPlant Interop Publisher.

2. Insert the SmartPlant Interop Publisher product DVD. If the installation does not start automatically, double-click **setup.exe** in the main folder.

3. Click **Prerequisite Software** and install the following:

   - Microsoft Data Access Components (MDAC)

   - .NET 4.5.1 Framework software

   - MS VC++ 2008 SP1 Redistributable Package

- MS VC++ 2010 SP1 Redistributable Package with MFC Security Update. This package is required for the installation process to continue.

4. Click **Installation for SmartPlant Interop Publisher**.

   NOTE If the MS VC++ 2010 SP1 Redistributable Package with MFC Security Update is not found on your system, you are prompted about the requirement. Click **Yes** to install this MS package and continue, or click **No** to return to the start page.

5. Click **Next**.

6. Type your name, company name, and the SmartPlant Interop Publisher serial number you received with your purchase.

7. Verify your information, and then click **Next**.

8. Click **Display** to read and accept the license agreement, and then click **Yes**.

   NOTE You must have a PDF reader to view the license agreement.

9. Specify the destination folder, and then click **Next**.

10. Click **Install**.

    *SmartPlant Interop Publisher displays the **Completed the Intergraph SmartPlant Interop Publisher Setup Wizard** page upon successful installation.*

11. Click **Finish**.

12. Close the **SmartPlant Interop Publisher** page.

See Also

How Do I Install SmartPlant Interop Publisher in Silent Mode? (on page 38)

Upgrade Site Databases and Projects

After you have installed the latest version of SmartPlant Interop Publisher, you must perform a database upgrade. At a minimum, you must either (a) upgrade your previous site databases, or (b) create a new site database. You can choose to upgrade your project databases at a later time. Follow the steps below to either upgrade or create a new site database.

Option A: Upgrade

1. Click the SmartPlant Interop Publisher icon on your desktop .
   OR
   From the **Start** menu, click **All Programs > Intergraph SmartPlant Interop Publisher**.

*SmartPlant Interop Publisher displays the **Upgrade Database** dialog box.*
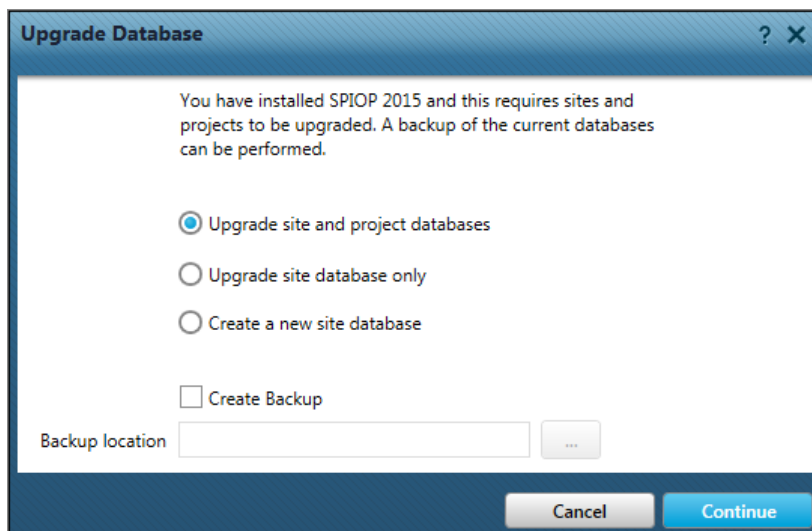

2. Select one of the following to upgrade:

    ▪   **Upgrade site and project databases** - Upgrades all your site and project databases on the current system.

    ▪   **Upgrade site database only** - Upgrades only the site databases without upgrading the projects contained within the site. If you choose to use the projects at a later time, you must run the **Upgrade Project** command in the **Projects** view.

3. Click **Create Backup**, and then browse to a location to store the backup.

4. Click **Continue**.

    SmartPlant Interop Publisher performs the backup and then the upgrade.
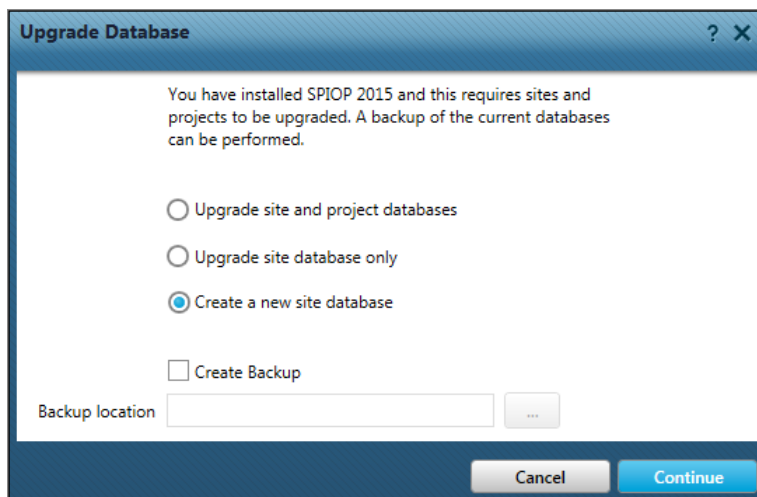
    *When the process finishes, SmartPlant Interop Publisher displays the **Projects** view.*
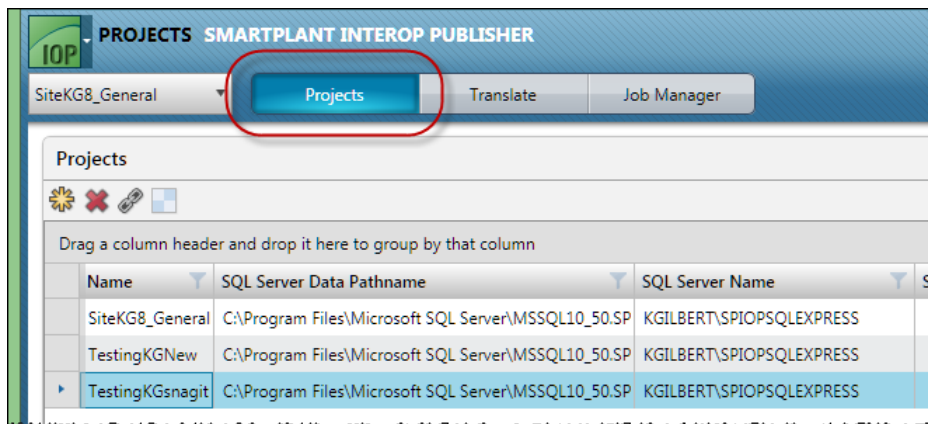
5. You can create new projects for the site database.
    OR
    Upgrade projects. For more information, see *Create a project* and *Upgrade a project* topics in the *SmartPlant Interop Publisher User's Guide*.

Option B: Create a New Site Database

1. Click the SmartPlant Interop Publisher icon on your desktop [IOP].
   OR
   From the **Start** menu, click **All Programs > Intergraph SmartPlant Interop Publisher**.

   *SmartPlant Interop Publisher displays the **Upgrade Database** dialog box.*

2. Select **Create a new site database** and then click **Continue**.

   *SmartPlant Interop Publisher displays the **Configure Site Database** dialog box.*
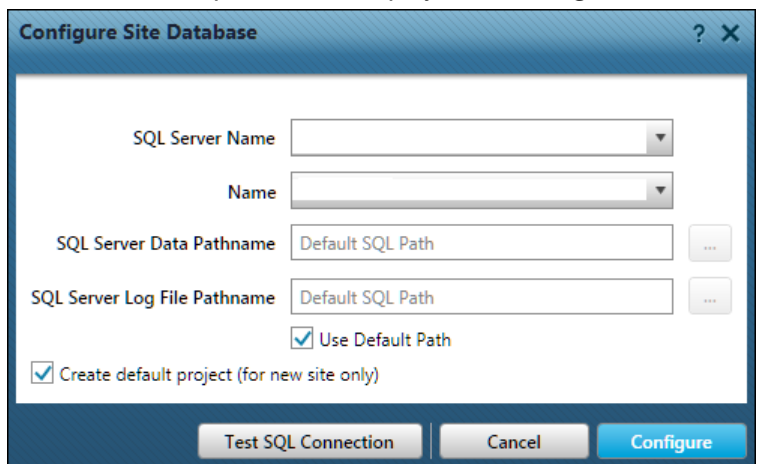
3. In the **SQL Server Name** box, select the SQL Server instance name you created for SmartPlant Interop Publisher.

4. Type a name for your site database **Name**.

   NOTES

   - Each site name must be unique.

   - The following characters cannot be used in a site database name:

     - Plus (+)

- Minus (-)
- Period (.)
- Comma (,)
- Question mark (?)
- Quotation mark (")
- Greater than (>)
- Less than (<)
- Pipe or bar (|)
- Forward slash (/)
- Back slash (\)
- Asterisk (*)
- Colon (:)
- Semicolon (;)
- Site names cannot start with a number.
- Do not insert spaces in the site name.
- Site names cannot be longer than 16 characters.

5. When you create a new SmartPlant Interop Publisher site or project database, you can use either the default SQL Server location or specify your own location. Clear **Default Path** to select different locations for **SQL Server Data Path** and **SQL Server Log File Path**.
OR
Keep the **Default Path** option selected to use the default location. **Default SQL Path** displays and the software uses the locations defined for these in SQL Server. **SQL Server Data Pathname** and **SQL Server Log File Pathname** become read-only and are not active.

NOTE After you create a database, you cannot change the **SQL Server Data** and **SQL Log File** locations.

6. To check the paths, open the SQL Server **Configuration Manager** and look at the site **Properties**.

7. In the **SQL Server Data Path Name** box, browse to the folder for the site database file.

8. In the **SQL Server Log File Path Name** box, browse to the full path of the SQL Server-generated log file.

9. Keep the **Create default project (new site only)** option checked for SmartPlant Interop Publisher to automatically create a project called [*site database name*]_**General**. Otherwise, you must create a project before you can add source files.

10. Click **Configure**.

*When the process finishes, SmartPlant Interop Publisher displays the **Projects** view.*

11. Use the default project.
OR
Create new projects.

For more information, see *Create a project* in the *SmartPlant Interop Publisher User's Guide.*

Migrate a Database Server (Local to Remote)

IMPORTANT Before you begin, make sure you have installed the latest SmartPlant Interop Publisher version and performed the database upgrade. For more information, see *How Do I Upgrade My Current Version?* (on page 19).

Follow the steps below to move your local database to a remote server for single and multi-user access. Otherwise, you can create a new database on your remote server and create new projects or add in projects created in previous versions of SmartPlant Interop Publisher.

TIPS

- For creation, the permissions must be set to the DBCreator role on the SQL Server instance level.
- To allow reading data only, use the db_datareader server role.
- To allow read and write, use the db_datawriter server role.

1. Designate a shared folder to contain Smart Model files and source files.
2. Use SQL Management Studio to back up your SmartPlant Interop Publisher project (.mdf) files.
3. Back up and then move your Smart Models and source files to that shared location.
4. Use SQL Management Studio to back up your site database files.
5. Make a list of your site database files and corresponding projects.
6. Create target folders on the remote server to contain the database files and project files.
7. If you have several files, make a list of your source files and Smart Models to include their name, old path, and then the new path of the folders you just created on the remote server:

   Name   Old Path   New Path

8. Connect to your remote serve and go to the new target folders.
9. Create new, empty site database files using the naming convention [*site file name*]_SSDB.mdf to replace each local site database file you have.
10. Create new, empty project files using the naming convention [*project name*] _SPDB to replace each project file.
    IMPORTANT You must use the "_SSDB" and "_SPDB" designation in the name. Otherwise, SmartPlant Interop Publisher cannot open these files.
11. Use the SQL Management Studio **Restore** command to restore the site database file first and then each project file contained in that site database. Repeat this step for each site database and project file to move.
12. Use the SQL Management Studio **New Query** to run the following queries to change the path of each source file and Smart Model in your list to the new shared location:

    Source Files

    ```
    Use <DatabaseName>;

    update SourceFiles
    ```

```
set Path = <NewPath>
where SourceFileName = <Name>
```

Smart Models

```
use <DatabaseName>;
update SmartModels
set Path = <NewPath>
where SmartModelName = <Name>
```

You are ready to use SmartPlant Interop Publisher with your remote database server.

How Do I Install for the First Time?

This section contains information and workflows to install SmartPlant Interop Publisher and all required Intergraph and third party components. The general steps to install SmartPlant Interop Publisher and set up a database are shown below. More detailed information about Microsoft SQL Server and SmartPlant Interop Publisher is provided in subsequent sections.

Installation
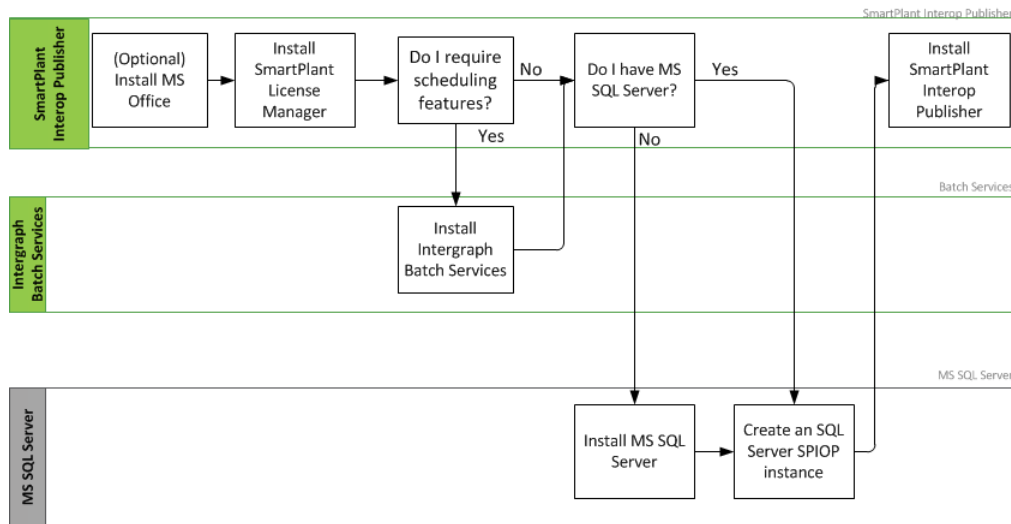
1. Set up your environment. Some of the settings you define in the SQL Server are based on your environment setup.

2. (Optional) Install Microsoft Office if you are working with mapping files or CIS/2 files.

3. Install SmartPlant License Manager (SPLM). SmartPlant Interop Publisher supports SPLM Client 2010 and SPLM Server 2010 or 2012. If you are publishing to SmartPlant Foundation, you need an SPLM 2012 Server. Refer to the *SmartPlant License Manager User's Guide and the SmartPlant Foundation Desktop Client User's Guide* for install and setup information.

4. (Optional) To use scheduling, install and configure Intergraph Batch Services. After installation, you must set up batch services to work with SmartPlant Interop Publisher. For more information, see *Configuring Batch Services* (on page 41).

5. Install the SmartPlant Interop Publisher-supported Microsoft SQL Server version, and then create an instance.

    See *Install and Configure (New SQL Server Setup)* (on page 27).
    OR
    If you have SQL Server installed, create an instance for SmartPlant Interop Publisher.

    See *Create an Instance and Configure (Existing SQL Server Setup)* (on page 32).

6. Perform any required network configuration.

7. Install SmartPlant Interop Publisher.

    See *Install SmartPlant Interop Publisher* (on page 37).

    ### In This Section

Work with SQL Server

There are two SQL Server installation options. Select the option that applies to your system.

▪ If you do not have Microsoft SQL Server installed, then you must download and install a Microsoft SQL Server edition supported by SmartPlant Interop Publisher, and then create a named instance.

    See *Install and Configure (New SQL Server Setup)* (on page 27)
    OR
    If you already have a supported SQL Server edition installed, create an instance for SmartPlant Interop Publisher.

    See *Create an Instance and Configure (Existing SQL Server Setup)* (on page 32).

See Also
SmartPlant Interop Publisher Requirements (on page 17)

Install and Configure (New SQL Server Setup)

Because SmartPlant Interop Publisher supports multiple versions of Microsoft SQL Server and system configurations can vary, use this section as a checklist instead of step-by-step instructions for SQL Server. The outline below describes the installation process for SQL Server 2012 (64-bit) Express edition. For detailed information about the installation process for SQL Server, you can download the corresponding SQL Server readme file or documentation provided by the Microsoft Download Center.

During the installation, you are going to create a site for SmartPlant Interop Publisher. When installation is completed, you must then configure your network and start the SQL Server service.

NOTES

▪ If you have a supported SQL Server Express edition installed, skip to the section **Create an Instance and Configure (Existing SQL Server Setup)** (on page 32).

▪ The current installation of SmartPlant Interop Publisher is only available for the local computer.
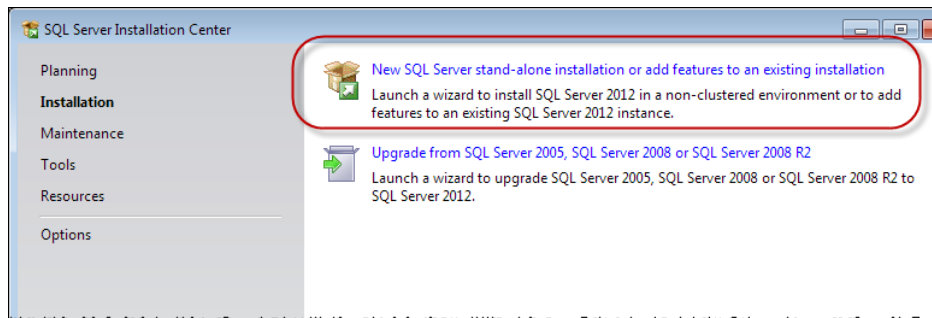
Installation and Site Creation

1. Verify that you have Administrator privileges on the computer.

2. Go to the Microsoft website. From their download center, locate the Microsoft SQL Server Express edition to install version 2012 (64-bit).

3. Click **Download**, and then select the executable file. We recommend downloading the SQLEXPRWT_x64 file.

4. Click **Next** to start the download.

   NOTE Depending on your security settings, you can be notified that you must allow the software to make changes to your computer as you download the program.

5. Save the file to your computer, and then run the file as Administrator.

6. Click **Installation > New SQL Server stand-alone installation or add features to an existing installation**.


7. Accept the licensing terms, and click **Next**.

8. From the **Setup Support Files** page, click **Install**.

9. From the **Setup Support Rules** page, correct any failures before continuing.
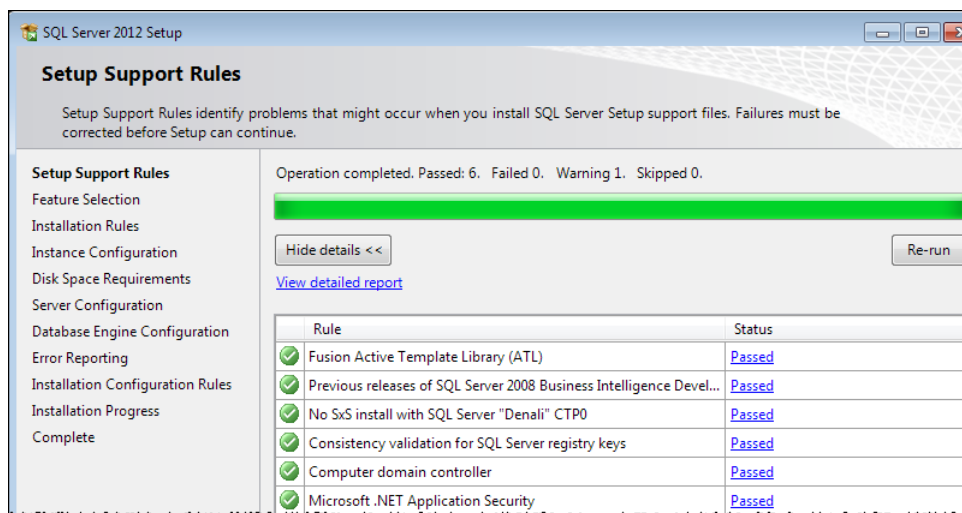
10. Click **Next**.

11. From the **Feature Selection** page, select the **Database Engine Services**.

12. For **Shared feature directory** and **Shared feature directory (x86)**, use the default paths, or choose a custom location.
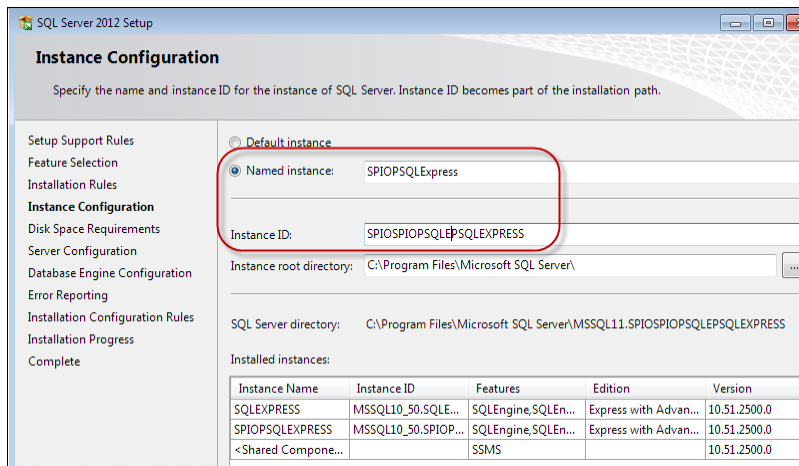
TIP We recommend that you use the default paths.
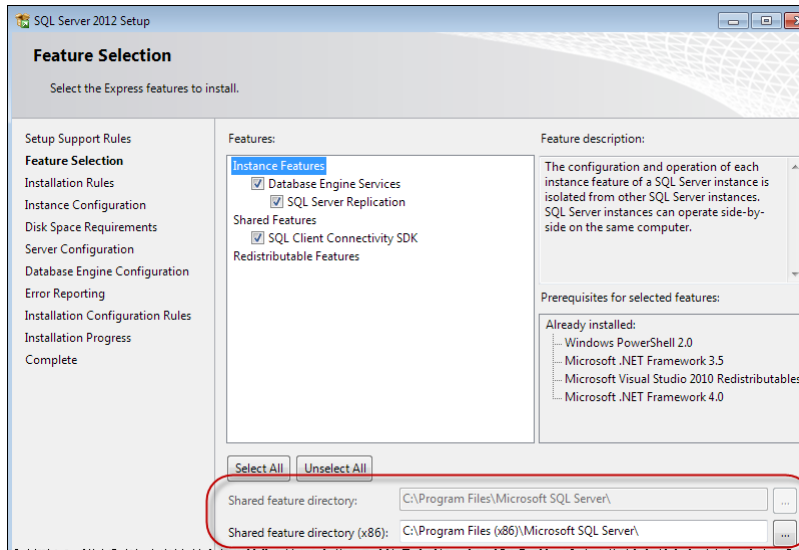
13. Click **Next**.

14. From the **Instance Configuration** page, we suggest the following names. You can use whatever name and ID is required for your system setup.

   - **Named instance**: SPIOPSQLExpress

   - **Instance ID**: SPIOPSQLExpress

15. Click **Next**.

16. From the **Server Configuration** page, select **NT AUTHORITY\NETWORK SERVICE** for the **Account name**, and then click **Next**.

17. From the **Database Engine Configuration** page:

   - Select **Windows authentication mode**.

   - In the **Specify SQL Server administrators**, click **Add Current User**.

- For other users or groups to access this database, click **Add** and then enter their names or group names.
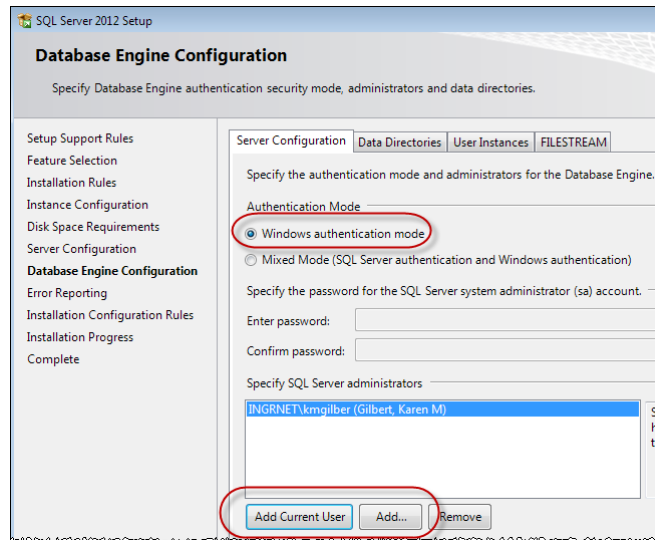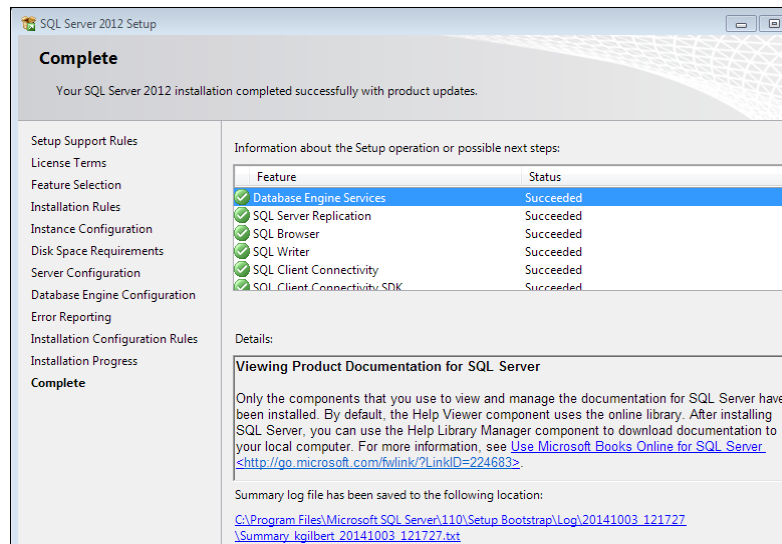

18. Click **Next**.

19. From the **Error and Usage Reporting** page, select options to send error reports to Microsoft; otherwise, click **Next**.
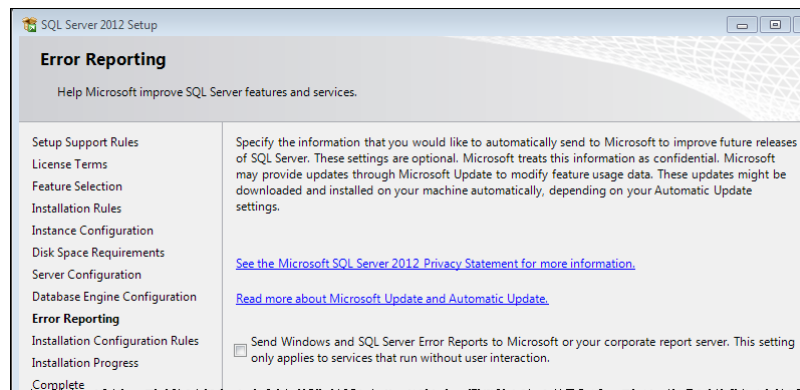
20. From the **Installation Progress** page, wait as the install process finishes.

21. From the **Complete** page, click **Close**.

Perform Network Configuration

Follow the steps below to configure your network for SmartPlant Interop Publisher.

1. Click **Start > All Programs > Microsoft SQLServer [***version number***] > Configuration Tools > SQL Server Configuration Manager**.

2. From the Configuration Manager, go to **SQL Server Network Configuration > Protocols for SPIOPSQLEXPRESS**.

   NOTE If you gave the server a different instance name, make sure you use that name here in place of SPIOPSQLEXPRESS.

3. Enable **Named Pipes** and **TCP/IP**.

4. Click **OK** at the prompt.

5. To restart the server, click **SQL Server Services**, and then click **SQL Server SPIOPEXPRESS** (or your instance name), and right-click to select **Restart**.

   Wait as the service restarts.

6. Close the SQL Server Configuration Manager.

7. Continue on to *Install SmartPlant Interop Publisher* (on page 37).

Create an Instance and Configure (Existing SQL Server Setup)

Follow the steps below if you have a supported edition of Microsoft SQL Server. We recommend that you create an instance for SmartPlant Interop Publisher, but you can skip this section to continue using your existing SQL Server instance.

NOTES

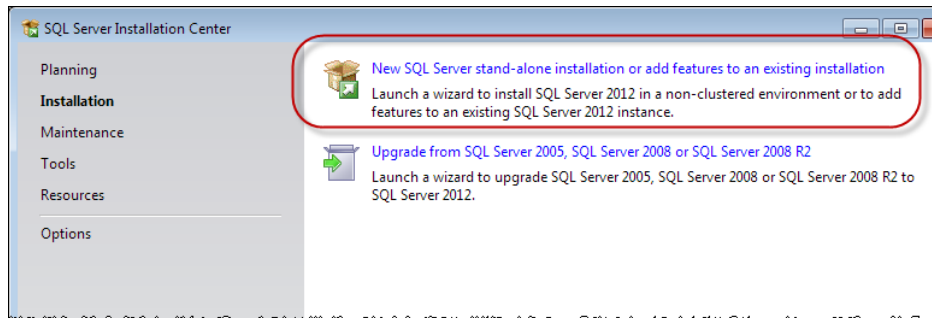- Verify that you have access to your original installation media. Otherwise, you cannot continue the configuration steps below.

- Verify that you have Administrator privileges on the computer.

1. Click **Start > All Programs > Microsoft SQL Server [**_Version Number_**] > Configuration Tools > SQL Server Installation Center (64-bit)**.
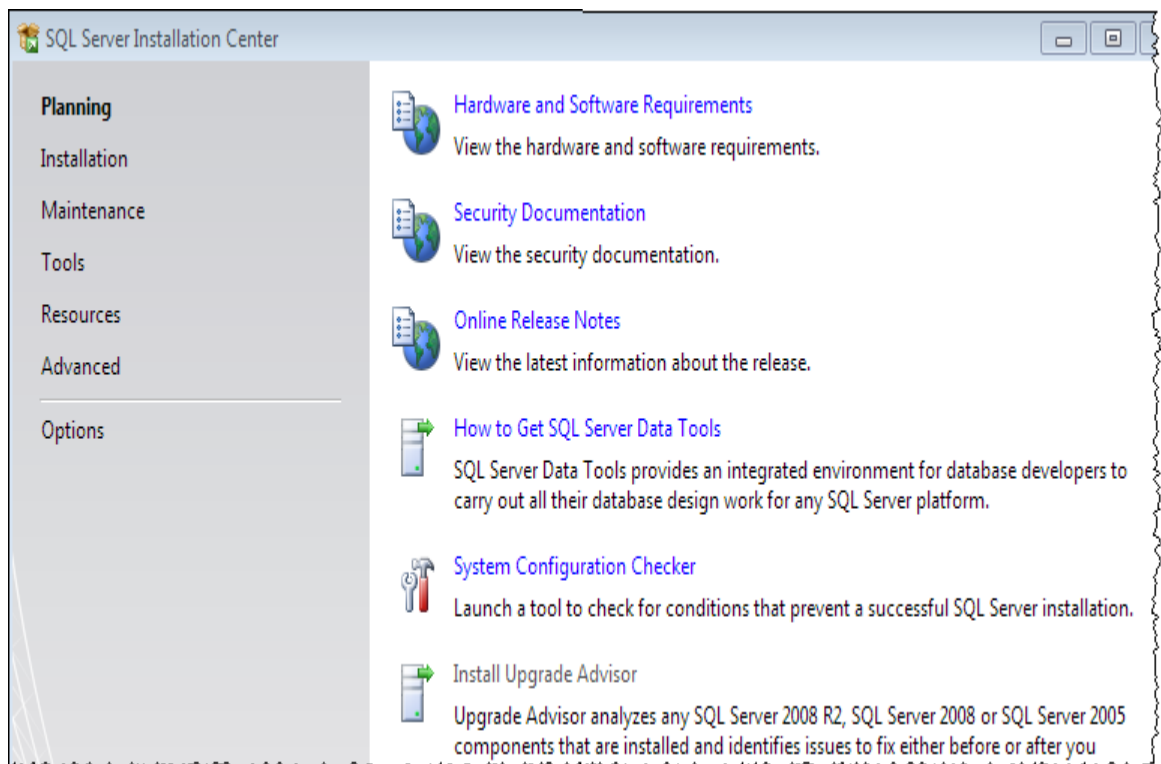
2.   Click **Installation > New SQL Server stand-alone installation or add features to an existing installation**.

3.   Accept the licensing terms, and click **Next**.

4.   From the **Setup Support Files** page, click **Install**.

5.   From the **Setup Support Rules** page, correct any failures before continuing.
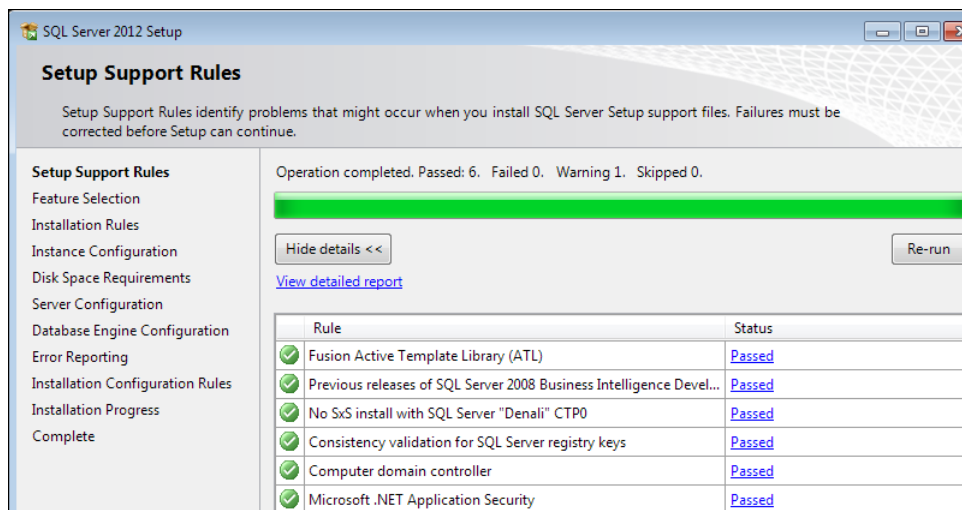
6.   Click **Next**.

7.   From the **Feature Selection** page, select the **Database Engine Services**.

8.   For **Shared feature directory** and **Shared feature directory (x86)**, use the default paths, or choose a custom location.

TIP We recommend that you use the default paths.
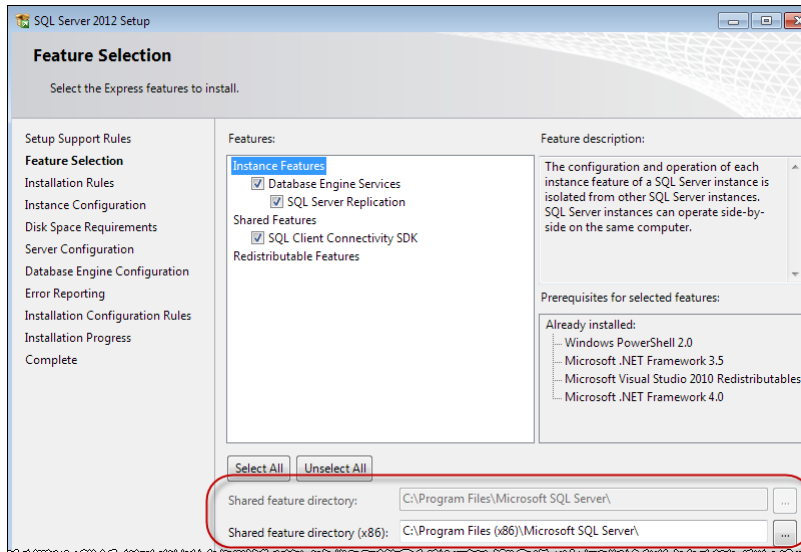
9. Click **Next**.

10. From the **Instance Configuration** page, we suggest the following names. You can use whatever name and ID is required for your system setup.

    ▪ **Named instance**: SPIOPSQLExpress

    ▪ **Instance ID**: SPIOPSQLExpress
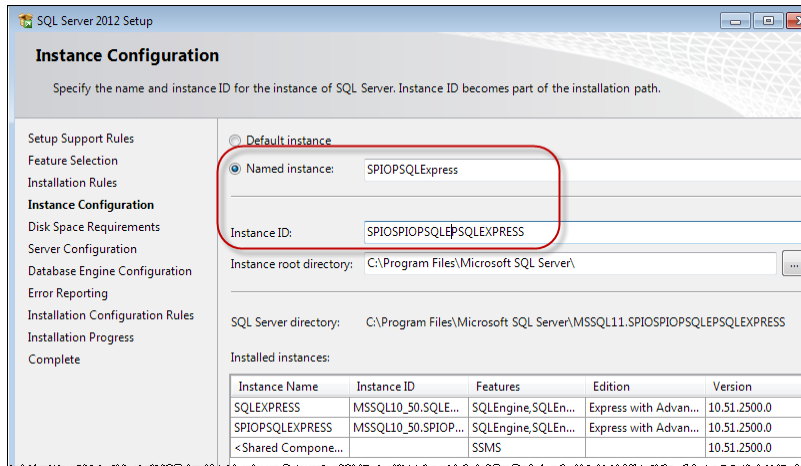
11. Click **Next**.

12. From the **Server Configuration** page, select **NT AUTHORITY\NETWORK SERVICE** for the **Account name**, and then click **Next**.

13. From the **Database Engine Configuration** page:

    ▪ Select **Windows authentication mode**.

    ▪ In the **Specify SQL Server administrators**, click **Add Current User**.

- For other users or groups to access this database, click **Add** and then enter their names or group names.
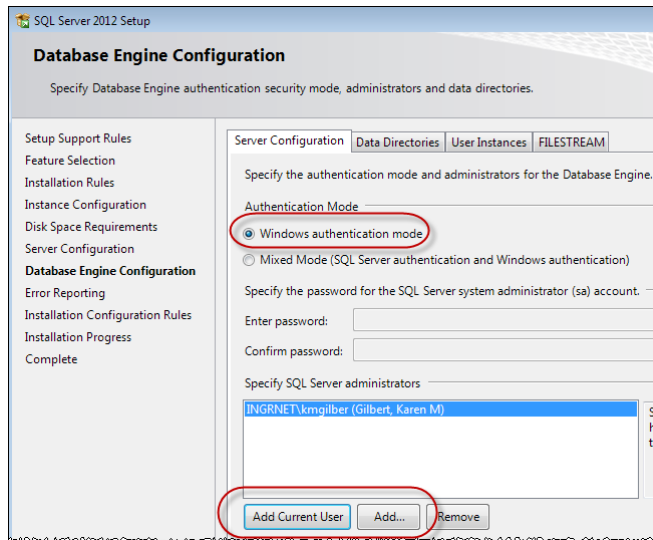
14. Click **Next**.

15. From the **Error and Usage Reporting** page, select options to send error reports to Microsoft; otherwise, click **Next**.
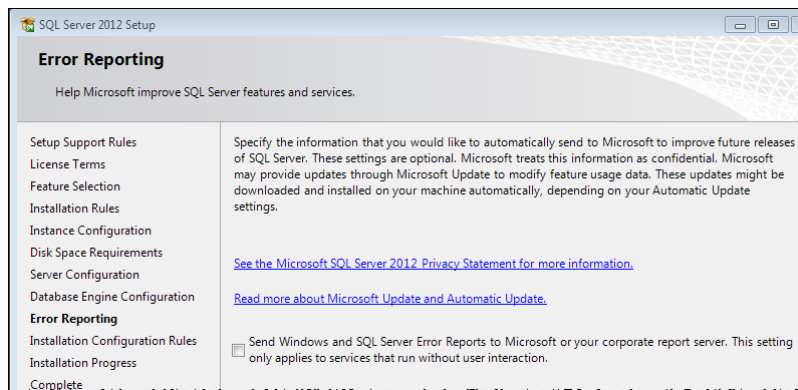
16. From the **Installation Progress** page, wait as the install process finishes.

17. From the **Complete** page, click **Close**.

Perform Network Configuration

Follow the steps below to configure your network for SmartPlant Interop Publisher.

1. Click **Start > All Programs > Microsoft SQLServer [***version number***] > Configuration Tools > SQL Server Configuration Manager**.

2. From the Configuration Manager, go to **SQL Server Network Configuration > Protocols for SPIOPSQLEXPRESS**.

   NOTE If you gave the server a different instance name, make sure you use that name here in place of SPIOPSQLEXPRESS.

3. Enable **Named Pipes** and **TCP/IP**.

4. Click **OK** at the prompt.

5. To restart the server, click **SQL Server Services**, and then click **SQL Server SPIOPEXPRESS** (or your instance name), and right-click to select **Restart**.

   Wait as the service restarts.

6. Close the SQL Server Configuration Manager.

7. Continue on to *Install SmartPlant Interop Publisher* (on page 37).

Install SmartPlant Interop Publisher

1. If you have not installed and configured SmartPlant License Manager on your workstation, we recommend doing so before installing SmartPlant Interop Publisher.

2. Insert the SmartPlant Interop Publisher product DVD. If the installation does not start automatically, double-click **setup.exe** in the main folder.

3. Click **Prerequisite Software** and install the following:

   - Microsoft Data Access Components (MDAC)

   - .NET 4.5.1 Framework software

   - MS VC++ 2008 SP1 Redistributable Package

   - MS VC++ 2010 SP1 Redistributable Package with MFC Security Update. This package is required for the installation process to continue.

4. Click **Installation for SmartPlant Interop Publisher**.

   NOTE If the MS VC++ 2010 SP1 Redistributable Package with MFC Security Update is not found on your system, you are prompted about the requirement. Click **Yes** to install this MS package and continue, or click **No** to return to the start page.

5. Click **Next**.

6. Type your name, company name, and the SmartPlant Interop Publisher serial number you received with your purchase.

7. Verify your information, and then click **Next**.

8. Click **Display** to read and accept the license agreement, and then click **Yes**.

   NOTE You must have a PDF reader to view the license agreement.

9. Specify the destination folder, and then click **Next**.

10. Click **Install**.

    *SmartPlant Interop Publisher displays the **Completed the Intergraph SmartPlant Interop Publisher Setup Wizard** page upon successful installation.*

11. Click **Finish**.

12. Close the **SmartPlant Interop Publisher** page.

See Also
How Do I Install SmartPlant Interop Publisher in Silent Mode?

How Do I Install SmartPlant Interop Publisher in Silent Mode?

Silent mode installations can be performed using command-line arguments executed from a command prompt, a batch file, or a third-party software deployment tool. Silent installations are performed with no user interaction or with pre-filled values requiring minimal interaction. This section provides the setup command and describes the available command-line arguments that can be used to perform silent installations for SmartPlant Interop Publisher using the provided setup executable.

TIP It is helpful if you are also familiar with the normal installation process. For more information, see Installation Overview.

Before you begin

Before creating a silent setup of SmartPlant Interop Publisher, make sure that the following conditions exist:

- All prerequisites are loaded. For more information, see *SmartPlant Interop Publisher Requirements* (on page 17). The silent installations do not automatically check for prerequisites.

- Any previous versions of SmartPlant Interop Publisher on the target machine have been uninstalled.

- The target machine meets the free disk space recommendations.

Command-line install with all arguments

```
msiexec.exe /i "<path>\<msifilename>.msi" <SLAACCEPT=yes> USERNAME=<name>
COMPANYNAME=<company_name> SERIALNUMBER=<assigned_serial_number>
[INSTALLDIR=<path>] [/Lv*x<path_to_log_file>] /qn
```

NOTE If any names or paths contain one or more spaces, enclose the name in quotation marks. For example:

```
USERNAME= "Pat Smith"
```

Required Arguments:	
`/i <Path>\<msi file name>`	Set up for installation.
`SLAACCEPT=yes`	Accepts the Software License Agreement for all users on whose computers you are installing the product.
`USERNAME=<name>`	Specifies the user name.

COMPANYNAME=<company name>	Specifies your company name.
SERIALNUMBER=<assigned _serial_number>	Specifies the serial number provided by Intergraph for SmartPlant Interop Publisher only.
Optional Arguments:	
/qn	Runs the Windows Installer setup file (.msi) in silent mode.
INSTALLDIR=<path>	Specifies that the application installs to another location other than the default Windows application folder, To change the location, enter a different path such as: INSTALLDIR=D:\Interop
/Lv*x <path>\Logfilename	Creates a Windows Installer installation log file. Enter an existing path for the log file such as: /Lv*x "C:\Installer Log Files\InstallLog.log" There are other configurable logging options that can be entered. See the Windows Installer help documentation for more details.

Examples Using the Windows Installer

This section shows how to call the MSI from the Windows Installer.

NOTE You must use the /i argument when using the Windows Installer (msiexec.exe).

Example 1: Installation with Pre-Filled Values

```
msiexec.exe /i E:\SPIOP\SPIOP.msi SLAACCEPT=yes USERNAME="Pat Smith"
COMPANYNAME=Intergraph SERIALNUMBER=0123456789
```

This command-line example installs SmartPlant Interop Publisher from E:\SPIOP, agrees to the license agreement, and registers the software to Pat Smith at Intergraph with a serial number of 0123456789.

Example 2: Silent installation

```
msiexec.exe /i E:\SPIOP\SPIOP.msi SLAACCEPT=yes USERNAME="Pat Smith"
COMPANYNAME=Intergraph SERIALNUMBER=0123456789 /qn
```

This command-line uses the same parameters as described in Example 1, but it installs without displaying any prompts or messages.

Example 3: Custom Folder and Log File Creation

```
msiexec.exe /i E:\SPIOP\SPIOP.msi SLAACCEPT=yes USERNAME="Pat Smith"
COMPANYNAME=Intergraph SERIALNUMBER=0123456789 INSTALLDIR="D:\Program
Files\SPIOP" /Lv*x C:\sprlog.txt /qn
```

This command-line uses the same parameters as in Example 1. It also performs a silent install to the custom folder D:\Program Files\SPIOP, and creates the C:\sprlog.txt log file.

Configuring Batch Services

If you are using scheduling, you must install Intergraph Batch Services on all client systems running SmartPlant Interop Publisher. Refer to the requirements and steps provided in the *Intergraph Batch Services Quick Start Guide*.

After you have installed Batch Services, you must perform the following:

- *Configure batch services account mappings* (on page 41)
- *Grant Jobs Access to the Desktop* (on page 42)

Configure batch services account mappings

If you did not set up account mapping during Batch Services installation, follow the steps provided in this section.

Batch Services requires an account name and password to use when running jobs. The process of determining the account name to use is called account mapping. You can use Batch Manager to enter and modify account-mapping information for your system. An account mapping entry comprises two parts: the user information to match (the "from" user), and whom that user maps to (the "to" user). Account mapping entries allow users submitting a job to assume the environment and permissions of the user to whom they are mapped.

To perform account mapping, the batch server tries to match the job owner with an account mapping entry, using the following order (items are listed on the account mapping dialog box in the order in which they are applied):

1. The batch server first tries to find an exact match, matching the job owner's domain or computer name and username with the "from" user in the account mapping entries.

2. If the batch server cannot find an exact match, the batch server then searches the account mapping entries using the job owner's domain or computer name, with "*" (meaning any user) as the username.

3. If no match is found, the batch server then searches the account mapping entries using "*" (meaning any computer or domain) as the domain name, with the job owner's username.

4. Finally, if a match still has not been found, the batch server searches with "*" as the domain name and "*" as the username.

Configure Account Mapping

NOTE In the **Map To Account Domain/Hos**t box listed below, you can also give the domain and user name for the person submitting batch job. For example, to run all batch jobs as a single user, type ***** for **Account Domain/Host** and the **User**.

1. Click **Start > All Programs > Intergraph Smart Batch Services > Intergraph Batch Manager**.

2. Select the computer name in the tree view.

3. Select **Server > Account Mapping**.

---

4. Type * for the **Map From Account Domain/Host** and the **User**.

5. In the **Map To Account Domain/Host** box, select the domain of the Windows user account you want to run jobs as.

6. In the **Map To Account User box**, type the user name to use.

7. Click **Add**.

8. Type and confirm the password for the "to account" user name.

9. Click **OK**.

Grant Jobs Access to the Desktop

If required, batch jobs can have access to the desktop. If jobs are allowed to have access to the desktop, a window that is iconified and non-active displays on the screen while a job is running. These windows will only be seen when a user is logged in.

NOTE Windows Vista, Windows 7, and Windows 2008 Server do not allow jobs access to the desktop.

Granting jobs access to the desktop depends on your site's security requirements. If jobs are granted access to the desktop, a logged in user will be able to interact with batch jobs that are running, even if the batch job is running as a different user. If security is not a concern, sites where batch jobs may require some user input should configure Batch Services to allow jobs to have access to the desktop. Sites where security is a main concern should configure Batch Services not to allow jobs to have access to the desktop. When you install Batch Services software, you are given the option of whether or not jobs may have access to the desktop. After installation, if you want to change the way Batch Services is currently configured, do the following:

1. Open **Control Panel > Administrative Tools > Services**.

2. Right-click on **Intergraph Batch Server** in the list, and then click **Properties**.

3. Select the **Log On** tab.

4. The **Allow service to interact with desktop** checkbox determines whether or not jobs may access the desktop. If you want jobs to have access to the desktop, make sure the checkbox is selected. If you do not want jobs to access the desktop, make sure the checkbox is cleared.

5. Click **Apply** to reconfigure the startup parameters.

   The Intergraph Batch Server service must be stopped and restarted for the change to take effect.

6. Select the **General** tab.

7. Click **Stop**.

8. Click **Start** to restart Batch Services.

9. Click **OK** to close the properties window.

Exit the Services window.

S ECTION 7

Troubleshooting

This section contains general troubleshooting information for SmartPlant Interop Publisher.

Commands and Options are Unavailable

Change SmartSolids to Surfaces for V7 DGN files Option

- This option displays for .dgn source files, but is disabled if you do not have MicroStation J (7.01) installed. This option also does not display for any other versions of MicroStation. Install MicroStation J, and select this option to translate the display of SmartSolids from wireframe to surface mode. If you do not select this option, SmartSolids are automatically translated to display in wireframe mode.

Mechanical CAD translation options

- Make sure you have the SmartPlant License Manager client installed on the same computer on which SmartPlant Interop Publisher is installed.
- Make sure you have an MCAD (MCD) license.

Open in SmartPlant Review Command

- Make sure you have SmartPlant Review loaded on the same computer on which SmartPlant Interop Publisher is installed.

Register with SmartPlant Command

- Make sure you have the following:
    - SmartPlant License Manager client (installed on the same computer on which SmartPlant Interop Publisher is installed)
    - SmartPlant Interop Publisher Adaptor to SmartPlant Foundation module
    - SmartPlant Client
    - SmartPlant Schema Component

Revise, Publish, and Publish All Commands

- You must register the project to SmartPlant Foundation using the **Register with SmartPlant** command. For more information, see Register with SmartPlant.
- These commands are not applicable to .svf Smart Models.
- Make sure you have the following:
    - SmartPlant License Manager client (installed on the same computer on which SmartPlant Interop Publisher is installed)
    - SmartPlant Interop Publisher Adaptor to SmartPlant Foundation license

- SmartPlant Client
- SmartPlant Schema Component

Schedule Button

- SmartPlant Interop Publisher requires version 2010 SP1 HF 06.01.09.000 of Intergraph Batch Services. If you do not have this version, contact your Intergraph support representative for upgrade information.

Translate Command

- Make sure you have the SmartPlant License Manager client installed on the same computer on which SmartPlant Interop Publisher is installed.

Upgrade Command

- Indicates a project that requires upgrading. The command is not active after you have upgraded the project.

Register Project Command

- You must upgrade the selected project for the **Register** command to be available.

Project Settings and Translation Settings Commands

- You must upgrade the selected project for the shortcut menu **Project Settings** and **Translation Settings** commands to be available.

Install the Mechanical Computer-Aided Design (MCAD) Module

You can install the MCAD module to allow SmartPlant Interop Publisher to translate and publish files created from MCAD software applications. MCAD applications are three-dimensional (3D) products for developing accurate and dynamic mechanical models. You can use the interactive install or the silent install for the MCAD module.

Prerequisites

The following requirements apply to both interactive and silent installations.

- SmartPlant Interop Publisher Version 2015 R1 must be installed on your computer before you can install the MCAD module. For more information, refer to the *SmartPlant Interop Publisher Installation Guide*.

- The MCAD module version number and the SmartPlant Interop Publisher version must match before the MCAD module can be installed. For example, for SmartPlant Interop Publisher version 11.0, you can only install the MCAD module version 11.0. You can refer to the Intergraph Smart Support website for the latest compatibility information.

- For .dwg source files containing proxy objects, and V8 .dgn, and i-model i.dgn files, you must install MicroStation V8i.

- SmartPlant License Manager:

  - Client 2010

  - Server 2010 and 2012 (depending on your SmartPlant Foundation setup)

- You must obtain an MCAD (MCD) module license key and serial number.

- You must have a minimum of 700 MB free disk space.

Interactive Installation

1. Insert the MCAD Module DVD into your DVD drive. If the installation does not start automatically, double-click **setup.exe** in the main folder.

2. From the **Welcome** page, click **Next**.

3. Type your name, company name, and the MCAD Module serial number.

   NOTE The serial number is used for installation purposes only. The MCD license key is required to run the MCAD Module with SmartPlant Interop Publisher.

4. Verify your information, and then click **Next**.

5. Click **Display** to read and accept the license agreement, and then click **Yes**.

   NOTE You must have a PDF reader to view the license agreement.

6. Note the destination folder, and then click **Next**.

7. Click **Install**.

    *The MCAD Module setup displays the **Completed** page upon successful installation.*

8. Click **Finish** to exit the setup.

Silent Installation

Silent mode installations can be performed using command-line arguments executed from a command prompt, a batch file, or a third-party software deployment tool. Silent installations are performed with no user interaction or with pre-filled values requiring minimal interaction. This section provides the setup command and describes the available command-line arguments that can be used to perform silent installations for the MCAD module using the provided setup executable.

Command-line install with all arguments:

```
msiexec.exe /i "<path>\<msifilename>.msi" <SLAACCEPT=yes> USERNAME=<name>
COMPANYNAME=<company_name> SERIALNUMBER=<assigned_serial_number>
[/Lv*x<path_to_log_file>] /qn
```

NOTE If any names or paths contain one or more spaces, enclose the name in quotation marks. For example: USERNAME= "Pat Smith".

Required Arguments:	
/i <Path>\<msi file name>	Set up for installation.
SLAACCEPT=yes	Accepts the Software License Agreement for all users on whose computers you are installing the product.
USERNAME=<name>	Specifies the user name.
COMPANYNAME=<company name>	Specifies your company name.
SERIALNUMBER=<assigned _serial_number>	Specifies the serial number provided by Intergraph for the SmartPlant Interop Publisher MCAD module.
Optional Arguments:	
/qn	Runs the Windows Installer setup file (.msi) in silent mode.
INSTALLDIR=<path>	The MCAD module detects the SmartPlant Interop Publisher installation path so you do not have to enter a path. The MCAD module automatically installs to that path.
/Lv*x	Creates a Windows Installer installation log file. Enter an existing path for the log file

`<path>\Logfilename`	such as: `/Lv*x "C:\Installer Log Files\InstallLog.log"` There are other configurable logging options that can be entered. See the Windows Installer help documentation for more details.

After MCAD module installation, you can open SmartPlant Interop Publisher to add your MCAD source files for translation. The MCAD module also provides translation settings for defeaturing to simplify your model during the translation. For more information on MCAD translations, refer to the *Define translation settings* topic in the *SmartPlant Interop Publisher User's Guide* and online Help.

SmartPlant Interop Publisher and Citrix

Performance Issues

A Citrix Presentation Server implements a virtualization environment that uses an emulated graphics card instead of a native hardware 3D CAD Workstation graphics card. This means that all clients running SmartPlant Interop Publisher in Citrix will notice a severe degradation in performance because SmartPlant Interop Publisher cannot take advantage of full hardware acceleration on this emulated graphics card.

SmartPlant Enterprise Prerequisites

To run SmartPlant Interop Publisher on a Citrix server, you must install the same prerequisite software that is required for the product to run on a desktop client system. Make sure that any prerequisite software installations are matched to the operating system. All patches or products should be in accordance with administrative guidance.

IMPORTANT

- To install software on a Citrix server, you must log on with an account that has *administrator* level access.

- SmartPlant Interop Publisher requires SQL Server to be loaded on the Citrix server. Each user must have their own unique database location also on this server.

Special Hardware Requirements

See the Citrix documentation for system hardware for the Citrix server. SmartPlant Interop Publisher requires at least 4 GB of RAM for each concurrent user. This is in addition to the RAM required for Windows and Citrix. These are minimum requirements. Large work environments will require additional RAM.

Configuring SmartPlant Interop Publisher for Citrix

When SmartPlant Interop Publisher is installed, you must perform the following operations to configure it for use with a Terminal Server or Citrix.

Unique Database Location Per User

Multiple site and project databases can reside in a single instance name. However, each user must have a location on the server where they can create unique site and project databases. The databases cannot reside on a share and cannot be mapped back to your local computer.

SmartPlant Review Loaded on the Server

SmartPlant Review must be loaded on the XenApp Server for integration with SmartPlant Interop Publisher. Models can still be opened locally if SmartPlant Review is loaded locally, but a local copy of SmartPlant Review cannot be launched from a XenApp installation of SmartPlant Interop Publisher.

Additionally, a XenApp-installed copy of SmartPlant Review does not use any hardware acceleration by default. Therefore, performance might not be optimal. Use the information provided in the *SmartPlant Review Installation* guide to install SmartPlant Review on a XenApp server.

Integration

Follow the information in the *SmartPlant Enterprise Citrix Configuration Guide* to install SmartPlant Foundation on a XenApp server.

Adding Application Path Statements to the System Path

Windows stores system path statements for individual executable files under the following registry path (depending on the platform):

- 32-bit O/S: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\App Paths*App_name.exe*

- 64-bit O/S: HKLM\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\App Paths*App_name.exe*

When a program registers an application path this way, Windows adds the path statement to the search path whenever the application is run. This path information becomes part of the System Search Path search order.

When applications are launched through Terminal Services (or Citrix), these path statements are not automatically added. If an application requires this path, then the path information from the appropriate AppPath registry key must be added to the path variable of the System Environment.

CAUTION Ensure that you back up the current value of the system path to a file for later reference if there is an issue. Making a mistake during the modification of the system path variable can render the computer unusable. It is essential to know the path contents prior to the modification to bring the computer back with any real confidence if there is a problem.

1. In the Registry, copy the data of the **Path** value for the application executable:

   ▪ 32-bit O/S: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\App Paths*App_name.exe*

   ▪ 64-bit O/S: HKLM\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\App Paths*App_name.exe*
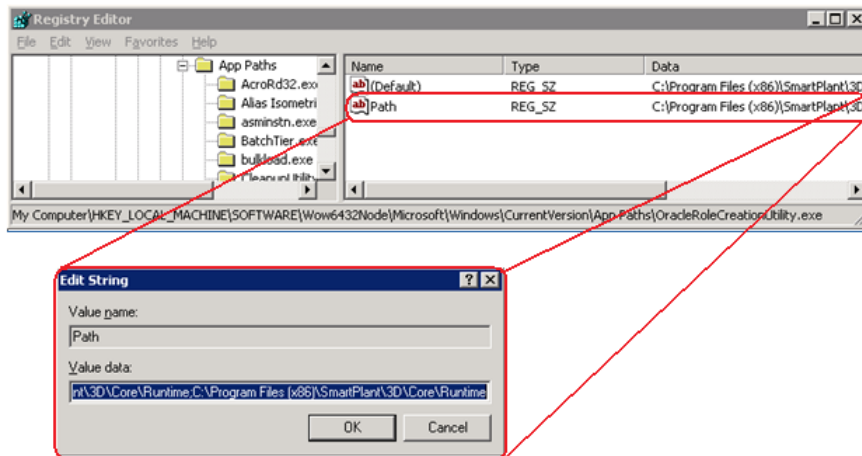
2. Display the **System Properties** window via the Control Panel.

3. Click the **Advanced** tab.

4. Click **Environment Variables**.

5. In the **System variables** list, select **Path** and click **Edit**.

6. Paste the value data from the Registry to the end of the Path string.
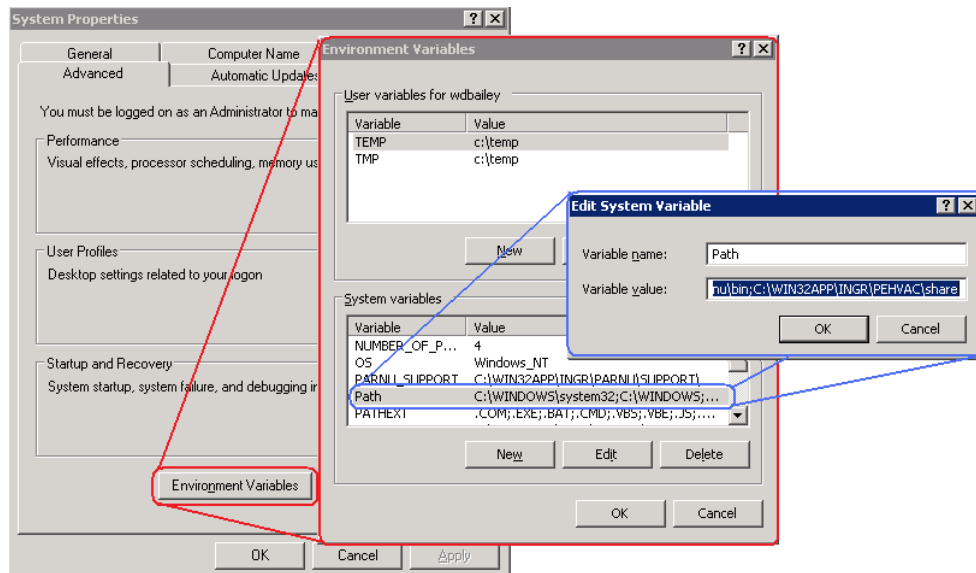
7. Click **OK** to dismiss all windows.

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