# SIEMENS

# In Context Editor 2018

# Install Guide

02-033649-20180-E

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# Contents

# Chapter 1: System requirements

In Context Editor (ICE) is part of a system for working with AutoCAD drawings stored in Teamcenter. System requirements for ICE software are the same as for the underlying AutoCAD/Windows combination. Each machine where ICE is run must have a licensed copy of Autodesk® AutoCAD software.

## System components

| Component | Comment |
|---|---|
| AutoCAD | Hosts the ICE application used to edit BOM lines and attachments. |
| In Context Editor | Required to work with ICE data structures. Runs inside AutoCAD. |
| Teamcenter database | The database must be configured to exchange data with ICE. |
| A supported Teamcenter rich client application | Displays data contained in Teamcenter database. Provides means of creating seed BOM node for importing new ICE projects.<br><br>Manufacturing Process Planner<br>Plant Designer<br>Structure Manager<br>Multi-Structure Manager<br>Part Planner |

**Note**

- To exchange data with the Teamcenter database, the Teamcenter FMS/FCC data transfer mechanism must be established on the computer where ICE is used. That mechanism is automatically established through installation of a Teamcenter 4-Tier Rich Client.

- Users without access to the Teamcenter database can install just AutoCAD and ICE, and then use ICE to work with an ICE drawing supplied by an ICE user with access to the Teamcenter database.

- Refer to Teamcenter installation manuals for system requirements for Teamcenter components.

- Each machine or network where ICE is installed must have a licensed copy of AutoCAD. Because ICE works within the AutoCAD graphics environment and its requirements are negligible relative to AutoCAD, system requirements for ICE software are the same as for the underlying AutoCAD/Windows combination.

## Supported platforms

**Microsoft Windows operating systems 64 bit versions for factory 2018**

- Windows 10 (64 bit only)
- Windows 8.1 with Update KB2919355
- Windows 7 SP1

> **Note**
>
> Release 2018 does not support 32-bit operating systems.

**Autodesk packages, as supported by Autodesk on the underlying operating system**

- AutoCAD 2017 and 2018
- AutoCAD Architecture 2017 and 2018
- AutoCAD MEP 2017 and 2018

If you run the software on an unsupported platform and encounter a problem, and the problem can be duplicated on a supported platform, we will work to fix the problem on the supported platform. A fix developed for a supported platform might resolve a problem on an unsupported platform. However, we may not work on resolving problems that do not occur on supported platforms.

**Teamcenter database versions**

- Teamcenter 10.1
- Teamcenter 11.2

## Known issues

There is a known issue in Teamcenter 10 with PLMXML when creating an item of type **Item**. This is fixed in Teamcenter 10.1.3. Here is an example of the error message:

```
Creating Item BOM line [C] GUARDRAILS-TAY64 ...
Put Structure Error Code : 169 Level : 3 Message : Teamcenter server is
not reachable.
Starting a new client session might resolve the problem.Servers—side Exception:
COMM_FAILURE Number : 169
```

If the item of type **Item** already exists in Teamcenter, then it can be modified using ICE. (The only error we are seeing is on creation of new BOM Lines from ICE).

There are no known issues with creation of ME Item types. ME Item Types are the recommended types for Manufacturing.

## AutoCAD requirements

Autodesk recommends that non-English language versions of AutoCAD be installed on an operating system with a matching user interface language.

You must have administrative permissions to install AutoCAD.

For multi-user or floating license configurations, a Network interface card and TCP/IP or IPX support is required.

| AutoCAD 2018 System Requirements | |
|---|---|
| Operating System | • Microsoft® Windows® 10 (64-bit only)<br>• Microsoft® Windows® 8.1 with Update KB2919355<br>• Microsoft® Windows® 7 SP1 |
| CPU Type | • 1 gigahertz (GHz) or faster 64 bit (x64) processor |
| Network | • Deployment via Deployment Wizard<br>• The license server and all workstations that will run applications dependent on network licensing must run TCP/IP protocol.<br>• Either Microsoft® or Novell TCP/IP protocol stacks are acceptable. Primary login on workstations may be Netware or Windows.<br>• In addition to operating systems supported for the application, the license server will run on the Windows Server® 2012, Windows Server 2012 R2, Windows Server 2008, Windows 2008 R2 Server editions.<br>• Citrix® XenApp™ 7.6, Citrix® XenDesktop™ 7.6 |
| Memory | 4 GB (8GB recommended) |
| Display Resolution | 1360 x 768 (1920 x 1080 recommended) with True Color.<br><br>For High Resolution & 4K Displays: Resolutions up to 3840 x 2160 supported on Windows 10 (with capable display card) |
| Display Card | Windows display adapter capable of 1360 x 768 with True Color capabilities and DirectX® 9. DirectX 11 compliant card recommended.<br><br>For High Resolution & 4K Displays: Windows display adapter capable of resolutions up to 3840 x 2160 and manufacturer-recommended for high resolution applications with True Color capabilities and DirectX9. DirectX11 card recommended. |
| Disk Space | Installation 4.0 GB |
| Pointing Device | MS-Mouse compliant |
| Digitizer | WINTAB support |
| Media (DVD) | Download and installation from DVD |
| Browser | Internet Explorer® 11 (or later) |
| ToolClips Media Player | Adobe Flash Player v10 or up |
| .NET Framework | .NET Framework Version 4.6 |

| AutoCAD 2017 System Requirements | |
|---|---|
| Operating System | • Microsoft® Windows® 10<br>• Microsoft Windows 8.1 with Update KB2919355<br>• Microsoft Windows 7 SP1 |
| CPU Type | • 1 gigahertz (GHz) or faster 64-bit processor |

| AutoCAD 2017 System Requirements | |
|---|---|
| Network | • Deployment via Deployment Wizard<br>• The license server and all workstations that will run applications dependent on network licensing must run TCP/IP protocol.<br>• Either Microsoft® or Novell TCP/IP protocol stacks are acceptable. Primary login on workstations may be Netware or Windows.<br>• In addition to operating systems supported for the application, the license server will run on the Windows Server® 2012, Windows Server 2012 R2, Windows Server 2008, Windows 2008 R2 Server editions.<br>• Citrix® XenApp™ 7.6 FP1, Citrix® XenDesktop™ 7.6 |
| Memory | 4 GB (8GB recommended) |
| Display Resolution | 1360 x 768 (1600x1050 or higher recommended) with True Color.<br><br>125% Desktop Scaling (120 DPI) or less recommended. |
| Display Card | Windows display adapter capable of 1360 x 768 with True Color capabilities. DirectX® 9. DirectX 11 compliant card recommended. |
| Disk Space | Installation 10.0 GB |
| Pointing Device | MS-Mouse compliant |
| Media (DVD) | Download and installation from DVD |
| Browser | Windows Internet Explorer® 9.0 (or later) |
| .NET Framework | .NET Framework Version 4.6 |

| Additional requirements for large datasets, point clouds, and 3D modeling with AutoCAD 2017 and 2018 | |
|---|---|
| Memory | 8 GB RAM or more |
| Disk Space | 6 GB free hard disk space available, not including installation requirements |
| Display Card | 1920 x 1080 or greater True Color video display adapter, 128 MB VRAM or greater, Pixel Shader 3.0 or greater, Direct3D®-capable workstation class graphics card. |

Notes:

# Chapter 2: Configure the Teamcenter database to use ICE

The Teamcenter database must be configured to use ICE. Configuration via Teamcenter Environment Manager (TEM) is supported and recommended. Example configuration scripts are included on the installation disk for customer use, but are not supported.

> **Note**
>
> If local database customizations have been made to item types used by ICE, manual configuration changes may be required after the ICE TEM package or configuration script has been applied.

## Add ICE and AutoCAD features via TEM

1. Run TEM on the server.

   > **Example**
   >
   > Choose **Start→Programs→TC [version]→Environment Manager**.

   > **Caution**
   >
   > Do not try to install the templates via **Business Modeler Templates**

2. On the **Maintenance** panel, choose **Configuration Manager** and click **Next**.

3. On the **Configuration Maintenance** panel, choose **Perform Maintenance on an existing configuration** and then click **Next**.

4. On the **Configuration Selection** panel, select the configuration you want to modify and click **Next**.

5. On the **Features** panel, choose **Add/Remove Features** and then click **Next**.

6. On the **Select Features** panel, click **Browse**. Locate the **feature_**feature-name**.xml** files in the software distribution image for ICE and AutoCAD.

   • **InContextEditor\Teamcenter\AutoCAD_ Template\feature_autocad.xml**

   • **InContextEditor\Teamcenter\ICE_Template\feature_ice.xml**

   Select both files.

   The two features appear in the **Miscellaneous** section at the end of the list.

7.  On the **Select Features** panel, select the **AutoCAD Foundation** and **In Context Editor** features.  Click **Next**.

8.  On the **Teamcenter Administrative User** panel, fill in the user name and password.  Click **Next** to proceed through the remaining panels.

9.  The **Database Template Summary** panel displays the list of templates to be installed by the selected features.  Click **Next**.

10.  On the **Confirm Selection** panel, click **Next** or **Start** as needed.

TEM installs the new features.

## Configure for non-English character sets

If the Teamcenter database uses non-English character sets, ensure that the iman_profilevars.bat file contains the following setting:

```
Set NLS_LANG=[character set]
```

The NLS_LANG variable should be set to the same value as the variable NLS_CHARACTERSET.

## Configure the default revision rule

Verify that the Teamcenter **Default Revision Rule** is sufficient for all ICE functionality you are going to use.

1.  In the Teamcenter rich client, choose **Edit→Options**.

2.  In the **Options** dialog box, choose **Product Structure**.

3.  Compare the **BOM Precision Option** and **Default Revision Rule** settings with the following ICE functionality descriptions.

| View | ICE uses the current Teamcenter Default Revision Rule to synchronize and display data. |
|---|---|
| Check out and modify | Teamcenter data must be checked out to you before you can modify it in ICE.<br><br>• If an Item Revision is in **Working** status and is not currently checked out by another user, and if you have Teamcenter permissions to check out the item, you can check out the Item Revision and its datasets from within ICE.<br><br>• In non-precise structures and in precise structures without an applicable "Precise" revision rule entry, if an Item Revision is in **Released** status, ICE can revise it (if the configuration file setting **Revise on Checkout** is set to True or Prompt) in order to create a **Working** revision and allow checking out of this new Working revision and its datasets. However, in a precise structure with an applicable "Precise" revision rule entry, you cannot use ICE to revise an Item Revision and then work with the new revision, since the configured structure will continue pointing to the old revision. |

| Revise | In a precise structure with an applicable "Precise" revision rule entry, even if ICE is configured to automatically revise an Item coincident to a checkout or publish operation, no updates to the structure will be brought into the ICE project. You will continue to see the precise structure that was originally loaded. |
|--------|--------|

**Example**

Consider a situation in which the Default Revision Rule has the **Precise** entry before **Working** and in the ICE configuration file, the option setting **Revise on Checkout** is set to **True**.

• A user checks out a BOM line that is currently **Released**.

ICE automatically revises the BOM line in Teamcenter and the new Item Revision is present in Teamcenter. However, since the Default Revision Rule is set to Precise, the original revision of the item is still present in your ICE structure. Since this revision in the ICE structure has Released status, it will not be available for modification.

In order to get the new Item Revision of the BOM line into ICE, you could do either of the following:

• From Teamcenter, create a new project from a BOM structure where the Revision Rule has Latest Working before Precise.

• From Teamcenter, create a new project from a precise BOM structure that points to the new Item Revision.

Since many Teamcenter environments only allow a single working revision, using Latest Working ensures that you will have the working revision of the data available for editing.

## Update the PLM XML transfer mode (as needed)

If an ICE template from an In Context Editor release earlier than Release 16 was deployed to Teamcenter, you must update the PLM XML transfer mode **ICE_Export_11_1**.

**Tip**

The transfer mode **ICE_Export_11_1** was updated between In Context Editor release 15 and 16. You can check the mode description in Teamcenter to determine whether or not an update is required.

| If the description for the PLM XML transfer mode ICE_Export_11_1 is this | The transfer mode is for these ICE versions |
|--------|--------|
| **Export for In Context Editor V11.1** | 15 and earlier |
| **Export for In Context Editor V16** | 16 and later |

Use the following steps to update transfer mode **ICE_Export_11_1**.

1.  On the installation disk, in the folder **...\InContextEditor\Teamcenter\ICE Template_xxx** (where xxx is your Teamcenter version), find the file **ice_install.zip** and extract **ice_export_transfer_mode_2007.xml**.

2.  Run the following command from the Teamcenter command prompt (replace `<TC_USER_PASSWD>` and `<FILE_PATH>` parameters with real values).

    ```
    plmxml_import -u=infodba -p=<TC_USER_PASSWD> -g=dba -xml_file=
    <FILE_PATH>/ice_export_transfer_mode_2007.xml -import_mode=overwrite
    ```

## ICE and SSO

If the installation of Teamcenter to be used with ICE is configured with Teamcenter Security Services, then when a user signs on to a Teamcenter application, Teamcenter opens the Teamcenter Security Agent.



As long as this window remains active, the user can launch additional Teamcenter applications without supplying further authentication. This persistent authentication is called SSO (Single Sign On). If a user sends data to ICE or launches ICE from AutoCAD while this window is active, no authentication dialog box appears before ICE starts.

## ICE and SSL

If Teamcenter is configured to use the Secure Sockets Layer (SSL) protocol, the appropriate Teamcenter SSL certificate file must be accessible to each client machine where ICE will be installed, and a **TEAMCENTER_SSL_CERT_FILE** system variable must exist on each client machine to point to the certificate file.

# Chapter 3: Prepare the license

Each machine where ICE software will be run must have access to a license. The license can be obtained from a license server or from a local license file. The following table lists some considerations for choosing a license location.

| License Location | Relative Characteristics |
|---|---|
| License server | • Can be readily managed and upgraded.<br><br>• Requires workstation connection to a network.<br><br>• License can be obtained by any workstation on the network.<br><br>• May reduce the number of licenses required.<br><br>• A license timeout value specifies the period of inactivity after which a checked out license is automatically checked back in to the license server. |
| Local file | • Does not require connection to a network<br><br>• For multi-user sites, may require more labor to manage and upgrade than a network license server.<br><br>• Software license cannot be used by another workstation. |

At the time of software purchase, a license file is provided to the license contact person. The license file is valid only for a specified machine (either a network server or a local workstation). The license file may include information and licensing for more than one product. For assistance with license issues, contact Global Technical Access Center (GTAC).

| In this situation | Do this |
|---|---|
| You do not want to use a license server. | Copy the license file to a drive on the workstation. |
| You already have a Siemens PLM license server (version 8.2.4 or newer) that you want to use to serve the Factory licenses. | Add the FEATURE and INCREMENT data from the supplied license file to your existing license file.<br><br>**Note**<br><br>You can only add your feature lines to an existing license file if all of the features have the same daemon. |

| In this situation | Do this |
|---|---|
| You want to install a new license server to serve the licenses. | 1.  Copy the license file to some location on the server.<br><br>**Note**<br><br>The first data line in the license file is typically the server line. The server line can contain hardware information or network information:<br><br>`SERVER YourHostname hardwareID port`<br><br>The second line is typically the vendor line:<br><br>`VENDOR daemonName pathToDaemon`<br><br>The rest of the license file typically contains FEATURE lines.<br><br>You can edit the following:<br><br>• On the server line, the hostname (first value) and the port address (third value)<br><br>• On the vendor line, the optional path to the daemon (second value)<br><br>2.  Copy the appropriate compressed server setup file from the installation disk folder **\License Server Installer\License Server Setups** to the server.<br><br>3.  Extract the server setup file and then run the setup executable, typically **setup.exe**.<br><br>4.  Follow the on-screen instructions. |

# Chapter 4:  Set up configuration files

Configuration files set values used by ICE, the Teamcenter Application Interface, and the Translate to JT module. While program operation requires that some settings are present in a configuration file, many configuration settings are optional.

The ICE installation disk contains configuration file templates **IceConfig.xml**, **TcApiConfig.xml**, and **TransToJtConfig.xml** in three corresponding folders within the **Config** folder. For convenience, you can combine the contents of the separate configuration files into one xml file.

## Configuration setting precedence

Configuration settings for program operation can be stored in either Local or Enterprise configuration files.

1.  If a setting is present in a Local configuration file, the Local setting value is used.

2.  When a setting is not present in a Local configuration file, but is present in an Enterprise configuration file, the Enterprise setting value is used.

3.  If a setting is not specified in either a Local or Enterprise configuration file, an internal default setting value is used.

4.  Some settings are available to change inside ICE in the Options dialog box. The settings are applied without restarting ICE.

As compared with Local configuration files, Enterprise configuration files enable consistent settings for multiple users and facilitate administration.

## Configuration file locations

ICE checks for **Local Configuration File** and **Enterprise Configuration File** file location string values in the following registry keys, which are created and populated during ICE program installation. The string values for enterprise configuration files can contain URL addresses as well as network or local paths. String values for local configuration files should point to files on the local machine.

```
HKEY_LOCAL_MACHINE\SOFTWARE\Siemens PLM Software\In Context Editor\[version]

HKEY_LOCAL_MACHINE\SOFTWARE\Siemens PLM Software\Teamcenter API\[version]

HKEY_LOCAL_MACHINE\SOFTWARE\Siemens PLM Software\Translate to JT for AutoCAD\[version]
```

# ICE configuration file

The ICE configuration file contains multiple sections, each of which is described on the following pages.

ImportBOMLines section

Datasets section

HideEntities section

ShowEntities section

Items section

Settings section

Data transfer settings

ProjectListColumns section

ProjectPaletteColumns section

FilterObjects section

## ImportBOMLines section

Specifications for importing files to the BOM structure via the **Create Multiple BOM Lines** dialog box.

```
▼<Configuration>
  ▼<ICE>
    ▼<ImportBOMLines>
      ▼<ImportBOMLinesDatasetTypes>
        <ImportBOMLinesDatasetType type="ACADDWG"/>
        <ImportBOMLinesDatasetType type="MSExcel"/>
        <ImportBOMLinesDatasetType type="PDF"/>
      </ImportBOMLinesDatasetTypes>
      <Setting name="Default BOM Line Type" value="Item"/>
      <Setting name="Default Occurrence Type" value=""/>
      <Setting name="DataFromDwg [Block/FileName]" value="FileName"/>
      <Setting name="Check Uniqueness [True/False]" value="False"/>
```

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|
| ImportBOM LinesDataset Types | Required only if the **Import BOM Lines** dialog box is used. Types of datasets that can be imported to a BOM line. The dataset types that can appear here are the one that have been defined in the **Datasets** section of the ICE configuration file. | Conditional | None |
| Default BOM Line Type | Default value for the BOM Line Type. The value specified here, if any, must be a type defined in the **Items** section of the ICE configuration file. | Optional | None |
| Default Occurrence Type | Default value for the Occurrence Type. The value specified here, if any, must be a type defined in the **Items** section of the ICE configuration file, and should correspond to the **Default BOM Line Type**. | Optional | None |
| DataFrom Dwg[Block/ FileName] | Source for data to automatically populate values in the **Create Multiple BOM Lines** dialog box.<br><br>• **Block** applies settings in the **BlockDataFrom** section of the ICE configuration file to collect data from a drawing block and use it to populate the dialog box. **Block** can be used when drawings consistently contain a standard block with values that identify the contents.<br><br>• **FileName** applies settings in the **FileNameDataFrom** section(s) of the ICE configuration file to parse the name of the file being imported and use it to populate the dialog box. **FileName** can be used when data files consistently have been named according to standard patterns. | Optional | None |

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|
| Check Uniqueness [True/False] | Check that values for datasets being imported with the **Import BOM Lines** dialog box are unique. Uses the UniquenessQuery setting in the SoaOnly section of the configuration file. Check occurs when **OK** is clicked. If any lines are not unique, the import stops and warns you to change or delete the non-unique BOM lines. | Optional | False |

```
▼<BlockDataFrom>
  ▼<BOMLineIDFormats>
    ▼<?BOMLineIDFormat
      blockName="RevisionBlock" attribute="Drawing Identifier"/
      ?>
      <?BOMLineIDFormat blockName="" attribute=""/?>
    ▼<?BOMLineIDFormat
      blockName="RevisionBlock" attribute="First Drawing Suffix"/
      ?>
    ▼<?BOMLineIDFormat
      blockName="RevisionBlock" attribute="Second Drawing Suffix"/
      ?>
    ▼<?BOMLineIDFormat
      blockName="RevisionBlock" attribute="Drawing Sheet Number"/
      ?>
      <?BOMLineIDFormat blockName="RevisionBlock" attribute="Mfg Version"/?>
    ▼<?BOMLineIDFormat
      blockName="RevisionBlock" attribute="Change Level"/
      ?>
    ▼<?BOMLineIDFormat
      blockName="RevisionBlock" attribute="ItemTypeCode"/
      ?>
    ▼<?BOMLineIDFormat
      blockName="RevisionBlock" attribute="Site Id Code"/
      ?>
  </BOMLineIDFormats>
  ▼<RevisionFormats>
    <RevisionFormat blockName="CHANGE_IN" attribute="SYM"/>
  </RevisionFormats>
  ▼<BOMLineNameFormats>
    <BOMLineNameFormat blockName="TITLE" attribute="PRIME"/>
    <BOMLineNameFormat blockName="TITLE" attribute="F"/>
    <BOMLineNameFormat blockName="TITLE" attribute="S"/>
    <BOMLineNameFormat blockName="TITLE" attribute="SHEET"/>
    <BOMLineNameFormat blockName=" " attribute="--"/>
    <BOMLineNameFormat blockName="CHANGE_IN" attribute="SYM"/>
    <BOMLineNameFormat blockName="TITLE" attribute="ITEM"/>
    <BOMLineNameFormat blockName="TITLE" attribute="LOC"/>
  </BOMLineNameFormats>
  ▼<BOMLineDescriptionFormats>
```

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|
| | ```xml
</BOMLineDescriptionFormats>
▼<DataSetNameFormats>
  <DataSetNameFormat blockName="TITLE" attribute="PRIME"/>
  <DataSetNameFormat blockName="TITLE" attribute="F"/>
  <DataSetNameFormat blockName="TITLE" attribute="S"/>
  <DataSetNameFormat blockName="TITLE" attribute="SHEET"/>
  <DataSetNameFormat blockName=" " attribute="--"/>
  <DataSetNameFormat blockName="CHANGE_IN" attribute="SYM"/>
  <DataSetNameFormat blockName="TITLE" attribute="ITEM"/>
  <DataSetNameFormat blockName="TITLE" attribute="LOC"/>
</DataSetNameFormats>
▼<DataSetDescriptionFormats>
  ▼<?DataSetDescriptionFormat
    blockName="TitleBlock" attribute="Drawing Identifier"/
  ?>
  <?DataSetDescriptionFormat blockName="" attribute=""/?>
  ▼<?DataSetDescriptionFormat
    blockName="TitleBlock" attribute="First Drawing Suffix"/
  ?>
  ▼<?DataSetDescriptionFormat
    blockName="TitleBlock" attribute="Second Drawing Suffix"/
  ?>
  ▼<?DataSetDescriptionFormat
    blockName="TitleBlock" attribute="Drawing Sheet Number"/
  ?>
  <?DataSetDescriptionFormat blockName="TitleBlock" attribute="Mfg Version"/?>
  <?DataSetDescriptionFormat blockName="TitleBlock" attribute="Change Level"/?>
  <?DataSetDescriptionFormat blockName="TitleBlock" attribute="ItemTypeCode"/?>
  <?DataSetDescriptionFormat blockName="TitleBlock" attribute="Site Id Code"/?>
</DataSetDescriptionFormats>
</BlockDataFrom>
``` | | |
| BlockData From | Settings for collecting data from a drawing block and using it to populate the dialog box. Applies when **DataFromDwg** is set to **Block**.

The **BOMLineIDFormats** tag contains a series of **BOMLineIDFormat** block attribute specifications. When a drawing is imported, ICE reads the values of the block attributes in the drawing and connects the values to create a BOM Line ID. An empty blockName value can be specified in the series, in which case the specified attribute name is applied. Similarly, if the drawing does not contain a specified block/attribute value, the specified attribute name is applied.

The **RevisionFormats**, **BOMLineNameFormats**, **BOMLineDescriptionFormats**, **DataSetNameFormats**, and **DataSetDescriptionFormats** tags contain similar series of block attribute definitions for collecting data and populating the respective Revision, Name, and Description values in the dialog box. | Optional | None |

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|

```
▼<FileNameDataFrom length="26">
  ▼<BOMLineIDFormats>
     <?BOMLineIDFormat start="0" length="10"/?>
     <?BOMLineIDFormat start="" length=""/?>
     <?BOMLineIDFormat start="10" length="1"/?>
     <?BOMLineIDFormat start="11" length="1"/?>
     <?BOMLineIDFormat start="12" length="4"/?>
     <?BOMLineIDFormat start="16" length="2"/?>
     <?BOMLineIDFormat start="18" length="3"/?>
     <?BOMLineIDFormat start="21" length="3"/?>
     <?BOMLineIDFormat start="24" length="2"/?>
  </BOMLineIDFormats>
  ▼<RevisionFormats>
     <?RevisionFormat start="18" length="3"/?>
  </RevisionFormats>
  ▼<BOMLineNameFormats>
     <BOMLineNameFormat start="0" length="10"/>
     <BOMLineNameFormat start="-1" length="--"/>
     <BOMLineNameFormat start="10" length="1"/>
     <BOMLineNameFormat start="11" length="1"/>
     <BOMLineNameFormat start="12" length="4"/>
     <BOMLineNameFormat start="16" length="2"/>
     <BOMLineNameFormat start="18" length="3"/>
     <BOMLineNameFormat start="21" length="3"/>
     <BOMLineNameFormat start="24" length="2"/>
  </BOMLineNameFormats>
  ▼<BOMLineDescriptionFormats>
     <?BOMLineDescriptionFormat start="0" length="10"/?>
     <?BOMLineDescriptionFormat start="" length=""/?>
     <?BOMLineDescriptionFormat start="10" length="1"/?>
     <?BOMLineDescriptionFormat start="11" length="1"/?>
     <?BOMLineDescriptionFormat start="12" length="4"/?>
     <?BOMLineDescriptionFormat start="16" length="2"/?>
     <?BOMLineDescriptionFormat start="18" length="3"/?>
     <?BOMLineDescriptionFormat start="21" length="3"/?>
     <?BOMLineDescriptionFormat start="24" length="2"/?>
  </BOMLineDescriptionFormats>
  ▼<DataSetNameFormats>
     <DataSetNameFormat start="0" length="10"/>
     <DataSetNameFormat start="10" length="1"/>
     <DataSetNameFormat start="11" length="1"/>
     <DataSetNameFormat start="12" length="4"/>
     <DataSetNameFormat start="16" length="2"/>
     <DataSetNameFormat start="18" length="3"/>
     <DataSetNameFormat start="21" length="3"/>
     <DataSetNameFormat start="24" length="2"/>
  </DataSetNameFormats>
  ▼<DataSetDescriptionFormats>
     <?DataSetDescriptionFormat start="0" length="10"/?>
     <?DataSetDescriptionFormat start="" length=""/?>
     <?DataSetDescriptionFormat start="10" length="1"/?>
     <?DataSetDescriptionFormat start="11" length="1"/?>
     <?DataSetDescriptionFormat start="12" length="4"/?>
     <?DataSetDescriptionFormat start="16" length="2"/?>
     <?DataSetDescriptionFormat start="18" length="3"/?>
     <?DataSetDescriptionFormat start="21" length="3"/?>
     <?DataSetDescriptionFormat start="24" length="2"/?>
  </DataSetDescriptionFormats>
</FileNameDataFrom>
```

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|

```xml
▼<FileNameDataFrom length="30">
  ▼<BOMLineIDFormats>
      <?BOMLineIDFormat start="0" length="10"/?>
      <?BOMLineIDFormat start="" length=""/?>
      <?BOMLineIDFormat start="10" length="1"/?>
      <?BOMLineIDFormat start="11" length="1"/?>
      <?BOMLineIDFormat start="12" length="4"/?>
      <?BOMLineIDFormat start="16" length="2"/?>
      <?BOMLineIDFormat start="18" length="3"/?>
      <?BOMLineIDFormat start="21" length="3"/?>
      <?BOMLineIDFormat start="24" length="2"/?>
  </BOMLineIDFormats>
  ▼<RevisionFormats>
      <?RevisionFormat start="18" length="3"/?>
  </RevisionFormats>
  ▼<BOMLineNameFormats>
      <BOMLineNameFormat start="0" length="10"/>
      <BOMLineNameFormat start="" length=""/>
      <BOMLineNameFormat start="10" length="1"/>
      <BOMLineNameFormat start="11" length="1"/>
      <BOMLineNameFormat start="12" length="4"/>
      <BOMLineNameFormat start="16" length="2"/>
      <BOMLineNameFormat start="18" length="3"/>
      <BOMLineNameFormat start="21" length="3"/>
      <BOMLineNameFormat start="24" length="2"/>
  </BOMLineNameFormats>
  ▼<BOMLineDescriptionFormats>
      <?BOMLineDescriptionFormat start="0" length="10"/?>
      <?BOMLineDescriptionFormat start="" length=""/?>
      <?BOMLineDescriptionFormat start="10" length="1"/?>
      <?BOMLineDescriptionFormat start="11" length="1"/?>
      <?BOMLineDescriptionFormat start="12" length="4"/?>
      <?BOMLineDescriptionFormat start="16" length="2"/?>
      <?BOMLineDescriptionFormat start="18" length="3"/?>
      <?BOMLineDescriptionFormat start="21" length="3"/?>
      <?BOMLineDescriptionFormat start="24" length="2"/?>
  </BOMLineDescriptionFormats>
  ▼<DataSetNameFormats>
      <DataSetNameFormat start="0" length="10"/>
      <DataSetNameFormat start="" length=""/>
      <DataSetNameFormat start="10" length="1"/>
      <DataSetNameFormat start="11" length="1"/>
      <DataSetNameFormat start="12" length="4"/>
      <DataSetNameFormat start="16" length="2"/>
      <DataSetNameFormat start="18" length="3"/>
      <DataSetNameFormat start="21" length="3"/>
      <DataSetNameFormat start="24" length="2"/>
  </DataSetNameFormats>
  ▼<DataSetDescriptionFormats>
      <?DataSetDescriptionFormat start="0" length="10"/?>
      <?DataSetDescriptionFormat start="" length=""/?>
      <?DataSetDescriptionFormat start="10" length="1"/?>
      <?DataSetDescriptionFormat start="11" length="1"/?>
      <?DataSetDescriptionFormat start="12" length="4"/?>
      <?DataSetDescriptionFormat start="16" length="2"/?>
      <?DataSetDescriptionFormat start="18" length="3"/?>
      <?DataSetDescriptionFormat start="21" length="3"/?>
      <?DataSetDescriptionFormat start="24" length="2"/?>
  </DataSetDescriptionFormats>
</FileNameDataFrom>
```

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|
| FileName DataFrom | Settings for parsing the name of the file being imported and using it to populate the dialog box. Applies when **DataFromDwg** is set to **FileName**.<br><br>Multiple sets of **FileNameDataFrom** settings can be included in the configuration file. Each **FileNameDataFrom** set applies to file names of a specified length.<br><br>The **BOMLineIDFormats** tag contains a series of **BOMLineIDFormat** character positions. When a dataset is imported, ICE parses the file name and connects the characters in the specified positions to create a BOM Line ID. An empty "start" value can be specified in the series, in which case its corresponding "length" value is applied.<br><br>The **RevisionFormats**, **BOMLineNameFormats**, **BOMLineDescriptionFormats**, **DataSetNameFormats**, and **DataSetDescriptionFormats** tags contain similar series of character positions populating the respective Revision, Name, and Description values in the dialog box. | Optional | None |

## Datasets section

Teamcenter dataset types that can be added from within ICE, along with the following for each type:

*   The default relation type between the attachment and the BOM line.

*   File type(s) that the dataset can consist of.

*   All relation types for the dataset type, and for each type, whether or not only one such dataset can be attached to a BOM line.

```xml
▼<Datasets>
  ▼<Dataset type="ACADDWG" defaultRelationType="IMAN_specification" namedReference="DWG">
    ▼<FileTypes>
       <FileType description="DWG" extension="dwg" transferType="Binary"/>
      </FileTypes>
    ▼<Relations>
       <Relation type="IMAN_reference" onlyUseOnce="False"/>
       <Relation type="IMAN_specification" onlyUseOnce="True"/>
      </Relations>
    </Dataset>
  ▼<Dataset type="DirectModel" defaultRelationType="IMAN_Rendering" namedReference="JTPART">
    ▼<FileTypes>
       <FileType description="JTPART" extension="jt" transferType="Binary"/>
      </FileTypes>
    ▼<Relations>
       <Relation type="IMAN_reference" onlyUseOnce="False"/>
       <Relation type="IMAN_Rendering" onlyUseOnce="True"/>
      </Relations>
    </Dataset>
  ▼<Dataset type="HTML" defaultRelationType="IMAN_reference" namedReference="HTML">
    ▼<FileTypes>
       <FileType description="HTML" extension="htm" transferType="Text"/>
       <FileType description="HTML" extension="html" transferType="Text"/>
      </FileTypes>
    ▼<Relations>
       <Relation type="IMAN_reference" onlyUseOnce="False"/>
      </Relations>
    </Dataset>
  ▼<Dataset type="MSExcel" defaultRelationType="IMAN_reference" namedReference="excel">
    ▼<FileTypes>
       <FileType description="Excel" extension="xls" transferType="Binary"/>
       <FileType description="Excel" extension="xlsx" transferType="Binary"/>
      </FileTypes>
    ▼<Relations>
       <Relation type="IMAN_reference" onlyUseOnce="False"/>
      </Relations>
    </Dataset>
  ▼<Dataset type="MSPowerPoint" defaultRelationType="IMAN_reference" namedReference="powerpoint">
    ▼<FileTypes>
       <FileType description="Powerpoint" extension="ppt" transferType="Binary"/>
       <FileType description="Powerpoint" extension="pptx" transferType="Binary"/>
      </FileTypes>
    ▼<Relations>
       <Relation type="IMAN_reference" onlyUseOnce="False"/>
      </Relations>
    </Dataset>
  ▼<Dataset type="MSWord" defaultRelationType="IMAN_reference" namedReference="word">
    ▼<FileTypes>
       <FileType description="Word" extension="doc" transferType="Binary"/>
       <FileType description="Word" extension="docx" transferType="Binary"/>
      </FileTypes>
    ▼<Relations>
       <Relation type="IMAN_reference" onlyUseOnce="False"/>
      </Relations>
    </Dataset>
  ▼<Dataset type="Text" defaultRelationType="IMAN_reference" namedReference="Text">
    ▼<FileTypes>
       <FileType description="Text" extension="txt" transferType="Text"/>
      </FileTypes>
    ▼<Relations>
       <Relation type="IMAN_reference" onlyUseOnce="False"/>
      </Relations>
    </Dataset>
  ▼<Dataset type="PDF" defaultRelationType="IMAN_manifestation" namedReference="PDF_Reference">
    ▼<FileTypes>
       <FileType description="PDF_Reference" extension="pdf" transferType="Binary"/>
      </FileTypes>
    ▼<Relations>
       <Relation type="IMAN_manifestation" onlyUseOnce="False"/>
      </Relations>
    </Dataset>
  </Datasets>
```

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|
| Datasets | At least one `Dataset` definition is required.<br><br>At least one `FileType` is required for each `Dataset`.<br><br>At least one `Relation` is required for each `Dataset`. | Required | None |

## HideEntities section

```
▼<HideEntities>
    <HideEntity className="CIMFCARRIERSET"/>
    <HideEntity className="CIMFDATAHOLDEROBJ"/>
    <HideEntity className="CIMFDICTIONARYITEM"/>
    <HideEntity className="CIMFFLOWCONNECTORSUB"/>
    <HideEntity className="CIMFICEBLOCKREFERENCE"/>
    <HideEntity className="CIMFLOADSET"/>
    <HideEntity className="CIMFPITARRAY"/>
    <HideEntity className="CIMFSCHEDULESET"/>
    <HideEntity className="CIMFSDXDATANAMES"/>
    <HideEntity className="CIMFSHIFTSET"/>
    <HideEntity className="CIMFSKIDSET"/>
    <HideEntity className="CIMFTRANSPORTERSET"/>
</HideEntities>
```

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|
| HideEntities | Names of entity classes that should not appear in the ICE data pane list of entities contained in a drawing associated with a BOM line.  Classes listed in the HideEntities section will not be displayed in the ICE data pane list of entities contained in a drawing associated with a BOM line, even if they match a pattern included in the ShowEntities section of the ICE configuration file. | Optional | None |

## ShowEntities section

```
▼<ShowEntities>
    <ShowEntity className="ACDB*"/>
    <ShowEntity className="AECDB*"/>
    <ShowEntity className="CCONTAINERARX"/>
    <ShowEntity className="CIMF*"/>
</ShowEntities>
```

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|
| ShowEntities | Names of entity classes that should appear in the ICE data pane list of entities contained in a drawing associated with a BOM line. Values can include strings with an asterisk (*) wildcard character at the end, in which case the string defines a pattern.<br><br>Entity classes listed in HideEntities will not be displayed in the list, even if they match class name strings or patterns listed here. | Optional | None |

## Items section

Types of items that can be added to a BOM structure from within ICE.

```xml
▼<Items>
  ▼<Item type="Item">
    ▼<Occurrences>
        <Occurrence type="MEResource"/>
        <Occurrence type="METool"/>
    </Occurrences>
  </Item>
  ▼<Item type="MfgOMEResource">
      <Occurrences/>
  </Item>
  ▼<Item type="MEDepartment">
      <Occurrences/>
  </Item>
  ▼<Item type="MELine">
    ▼<Occurrences>
        <Occurrence type="MEResource"/>
    </Occurrences>
  </Item>
  ▼<Item type="MEPlant">
      <Occurrences/>
  </Item>
  ▼<Item type="MESite">
      <Occurrences/>
  </Item>
  ▼<Item type="MEStation">
    ▼<Occurrences>
        <Occurrence type="MEResource"/>
    </Occurrences>
  </Item>
  ▼<Item type="MEWorkarea">
    ▼<Occurrences>
        <Occurrence type="MEResource"/>
    </Occurrences>
  </Item>
</Items>
```

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|
| Items | At least one Item is required. While item types do not necessarily have occurrence types, at least a placeholder `<Occurrences/>` tag is required for each item. The item types defined here populate the item and occurrence type menus in the Create BOM Line dialog box, and should correspond to the respective types defined in Teamcenter.<br><br>Displayable strings of Item Types, defined in Teamcenter, are brought into ICE and displayed in all dialog boxes.<br><br>Internal Teamcenter Item names should be used to define the types of items that can be added to a BOM structure from within ICE. The Teamcenter external display names for these Items will be used in the ICE dialog boxes. | Required | None |

## Settings section

Settings for program operations of ICE.

```
▶ <Items>...</Items>
  <Setting name="Write to Log File [True/False]" value="False"/>
  <Setting name="Verify New Dataset Names are Unique in ICE Structure [True/False]" value="False"/>
  <Setting name="Verify New Revision Names are Unique in ICE Structure [True/False]" value="False"/>
  <Setting name="Default Drawing Dataset Type" value="ACADDWG"/>
  <Setting name="Default Rendering Dataset Type" value="DirectModel"/>
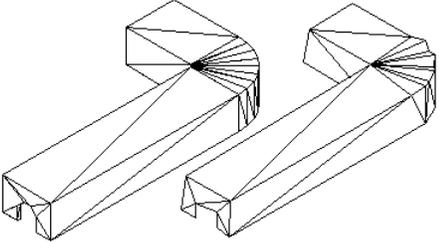  <Setting name="AI Type Name" value="ICE - In Context Editor"/>
  <Setting name="Export Transfer Mode" value="ICE_Export_11_1"/>
  <Setting name="Import Transfer Mode" value="ICE_Import_11_1"/>
  <Setting name="Template" value="ice.dwt" isFile="True"/>
  <Setting name="Default Separator in Attachment Name[-,_,/]" value="/"/>
  <Setting name="Hybrid [On/Off]" value="Off"/>
  <Setting name="Translate on Publish [True/False]" value="True"/>
  <Setting name="Maintain Xrefs [True/False]" value="False"/>
  <Setting name="Use JT Simplification [True/False]" value="True"/>
  <Setting name="JT Simplification Type [DECIMATE/BBOX/VISIBILITYSPHERE]" value="DECIMATE"/>
  <Setting name="JT Simplification Resolution for VISIBILITYSPHERE [LOW/MEDIUM/HIGH/SUPER]" value="LOW"/>
  <Setting name="JT Simplification LOD [min 0.0, max 1.0]" value="1.0"/>
  <Setting name="JT Simplification Level [min 0.0, max 1.0]" value="0.25"/>
  <Setting name="Display Checked Out by You [True/False]" value="True"/>
  <Setting name="Set Invisible Objects Visible before Publish [True/False/Prompt]" value="Prompt"/>
  <Setting name="JT Insertion Units [Inches/Millimeters/Undefined]" value="Undefined"/>
  <Setting name="Rename Blocks [Pre/Post/False]" value="False"/>
  <Setting name="Rename Layers [Pre/Post/False]" value="False"/>
  <Setting name="Delete Unused Layers [True/False]" value="True"/>
  <Setting name="Write Layout Tabs to PDF[Single/Separate]" value="Single"/>
  <Setting name="Update PDF Attachments on Publish[True/False]" value="False"/>
```

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| Write to Log File [True/False] | Creates a log file in the TcAPI project folder when a project is launched. The log file name is **[ProjectName].log**. Each time another session is started for a project, the log file is overwritten. The log file contains the same information as the Status dialog. | Optional | False |
| Verify New Dataset Names are Unique in ICE Structure [True/False] | During Publish operation, check uniqueness of dataset names within the ICE structure. This check is independent of uniqueness queries of the Teamcenter database. | Optional | False |
| Verify New Revision Names are Unique in ICE Structure [True/False] | During Publish operation, check uniqueness of revision names within the ICE structure. This check is independent of uniqueness queries of the Teamcenter database. | Optional | False |
| Default Drawing Dataset Type | Attachment type to open in AutoCAD for a BOM line. | Required | None |

| Setting | Description | Required? | Internal Default |
|---------|-------------|-----------|------------------|
| Default Rendering Dataset Type | Attachment type to be rendered in Teamcenter for a BOM line. | Optional | None |
| AI Type Name | In PLM XML, the tag name that identifies ICE data. | Required | None |
| Template | The AutoCAD drawing template to use for ICE project and drawings. The template can also optionally be used for new BOM line drawings.<br><br>If no path is specified, ICE looks for the template in the same folder that contains the configuration file. | Required | None |
| Default Separator in Attachment Name[-,_,/] | You can set '-', '_' and '/' character as separator.<br><br>Examples:<br><br>ITEMNUMBER-REV : 70700000012345-A1<br><br>ITEMNUMBER_REV : 70700000012345_A1<br><br>ITEMNUMBER/REV : 70700000012345/A1<br><br>This separator will be used for the default attachment name in "Add Dataset" and "Add BOM Line" dialogs.<br><br>Add BOM Line: (at all places separator will be used as specified in IceConfig)<br><br>When user clicks Assign button: | Optional | / |

| Item Number / Revision | Bom line Name | Attach-ment Name | Result for Attachment Name |
|------------------------|---------------|------------------|----------------------------|
| Blank | Not Assigned | Blank | Created IRNO/Rev and attachment name will be ITEMNUMBER-REV |
| Blank | Assigned | Blank | Created IRNO/Rev and attachment name will be ITEMNUMBER-REV |
| Assigned Manually | Assigned | Blank | ITEMNUMBER/REV will be replaced by TC NUMBER/REV and same will used for Attachment name |
| Assigned Manually | Assigned | Assigned manually | ITEMNUMBER/REV will be replaced by TC NUMBER/REV |

| Setting | Description | | | | Required? | Internal Default |
|---|---|---|---|---|---|---|
| | | | | but Attachment name will not be replaced | | |
| | When user Checks Use Default Template: | | | | | |
| | **Item Number / Revision** | **Bom line Name** | **Attach-ment Name** | **Result for Attachment Name** | | |
| | Not Assigned | Not Assigned | Blank | Blank | | |
| | Assigned | Not Assigned | Blank | ITEMNUMBER-REV | | |
| | Assigned | Assigned | Blank | ITEMNUMBER-REV | | |
| | Assigned | Assigned | Assigned manually | As Assigned | | |
| | Not Assigned | Assigned | Blank | BOM LINE Name | | |
| | Add Dataset: When user opens this dialog, the default attachment name will be in the form of ITEMNUMBER-REV (separator will be as specified in IceConfig).  User can modify this name. | | | | | |
| Hybrid [On/Off] | Displays a JT file in lieu of a drawing file when a BOM line does not have an attached drawing file but does have an attached JT file.<br><br>• On - ICE displays the attached JT file on the drawing screen.<br><br>• Off - Nothing appears on the drawing screen for the BOM line. | | | | Optional | Off |
| Translate on Publish [True/False] | Automatically translate AutoCAD drawings to .jt when data is published to the Teamcenter database.<br><br>**Tip**<br><br>Translating large drawings can take a long time.  In Teamcenter installations where automatic or scheduled batch translation of AutoCAD drawings has been set up, it | | | | Optional | False |

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| | may be preferable to set the ICE value for `TranslateOnPublish` to False. | | |
| Maintain Xrefs [True/False] | Store information regarding external drawing file references. Enables maintenance of Xref drawing structure for continued use when drawings exported from In Context Editor via the **Save As** command are opened outside of ICE. | Optional | False |
| Use JT Simplification [True/False] | Using the JT Simplification Type reduces the complexity of the translated entities. | Optional | True |
| JT Simplification Type [DECIMATE / BBOX / VISBILITY SPHERE] | **Decimate —** Includes only a portion of triangles from the .JT model tessellated surface while attempting to preserve as much detail as possible.<br><br>**Bounding box —** Creates a simple box bounding the model surface.<br><br>**Visibility Sphere —** Includes only tessellated geometry visible from a series of evenly-spaced viewpoints on a sphere surrounding the model. | Optional | DECIMATE |
| JT Simplification Resolution for VISIBILITY SPHERE [LOW / MEDIUM / HIGH / SUPER] | • **Low** (12 viewpoints)<br>• **Medium** (42 viewpoints)<br>• **High** (162 viewpoints)<br>• **Super** (642 viewpoints) | Optional | LOW |
| JT Simplification LOD [min 0.0, max 1.0] | **Note**<br><br>When a BOM line has no associated drawing, but does have in Teamcenter an attached Direct Model (JT) file with relationship type `IMAN_Rendering`, ICE can convert the JT file for display in AutoCAD.<br><br>Applicable if the JT file contains more than one tessellation set. Only one tessellation set is converted.<br><br>Specifies a fraction to use when choosing from the available sets of tessellated geometry. The fraction is applied to the number of vertices contained in the most detailed tessellation set. | Optional | 1.0 |

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| | The fraction is expressed by a decimal number in the range from 0.0 to 1.0.<br><br>{{SUBTABLE}} | | |
| JT Simplification Level [min 0.0, max 1.0] | The target percentage for simplifying the JT model. If you enter .9, the resulting model in AutoCAD looks a lot like the model in the JT file (the AutoCAD display version contains ninety percent of the triangles in the JT file). If you specify .5, a fifty percent simplification occurs (the AutoCAD display version contains fifty percent of the triangles in the JT file). Lower values produce less detail in the model, but the model loads faster.<br><br>Model with a .9 simplification.   Model with a .5 simplification. | Optional | 0.25 |

Sub-table within first row:

| Enter this value | To choose this tessellated geometry set |
|---|---|
| 0.0 | The set that has the lowest number of vertices. |
| 0.x | The set that has the number of vertices closest (over or under) to<br><br>**0.x** times **n**<br><br>where **n** is the number of vertices contained in the set of tessellated geometry that has the highest number of vertices. |
| 1.0 | The set that has the highest number of vertices. |

| Setting | Description | Required? | Internal Default |
|---------|-------------|-----------|------------------|
| Display Checked Out by You [True/False] | Displays a message if the items for a checkout to ICE operation already have a Teamcenter checkout status of being checked out to the current user.<br><br>**Example**<br><br>1. Larry opens an ICE project and checks out some items from Teamcenter.<br><br>2. Larry closes the ICE project without publishing changes or cancelling checkout.<br><br>3. Larry later opens the same ICE project. The Teamcenter checkout status of the items is still "checked out to Larry." However, the items have not yet been checked out to the current ICE session and thus cannot be modified.<br><br>4. So that he can make changes to the items within the current ICE session, Larry runs a checkout command on the items. If "Display Checked Out by You" is set to True, ICE displays a message that the items already have a Teamcenter checkout status of checked out to the current user. | Optional | False |
| Set Invisible Objects Visible before Publish [True/False/Prompt] | Provides options for turning object visibility property from off to on during a publish operation.<br><br>• True - Sets visibility property of all objects to on.<br><br>• False - Does not change any object visibility property.<br><br>• Prompt - For each BOM line drawing included in the publish operation, if the drawing contains objects with visibility set to off, prompts for whether or not to change visibility to on.<br><br>**Note**<br><br>• The visibility checkbox in the ICE BOM tree sets the object visibility property. Other mechanisms may also set object visibility. | Optional | False |

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| | • This setting is independent of the TransToJT configuration setting "Process Invisible Objects". | | |
| JT Insertion Units [Inches/ Millimeters/ Undefined] | Scale inserted Direct Model (JT) models to the specified unit. Applies to JT models loaded for BOM lines or when adding JT datasets in hybrid mode. <br><br> **Note** <br><br> The configuration file setting has highest priority in sequence of settings checked when determining scale factor for inserted JT models. See *JT import scaling*. | Optional | Undefined |
| Rename Blocks [Pre/ Post/ False] | Provides a means for resolving conflicts in the ICE project drawing between BOM line drawings that have blocks with equal names but different block definitions. <br><br> The following setting values have the effects described when loading the drawing attached to a BOM line. <br><br> <table><tr><td>**Value**</td><td>**Effect**</td></tr><tr><td>**Pre**</td><td>Adds the BOM line name as a prefix to the name of blocks from the BOM line drawing.</td></tr><tr><td>**Post**</td><td>Adds the BOM line name as a suffix to the name of blocks from the BOM line drawing.</td></tr><tr><td>**False**</td><td>If the ICE session drawing already has a block definition for a block named in the BOM line drawing, uses the existing ICE session drawing block definition.</td></tr></table> | Optional | False |
| Rename Layers [Pre/ Post/ False] | Provides a means for resolving conflicts in the ICE project drawing between BOM line drawings that have layers with equal names but different properties. <br><br> The following setting values have the effects described when loading the drawing attached to a BOM line. <br><br> <table><tr><td>**Value**</td><td>**Effect**</td></tr><tr><td>**Pre**</td><td>Adds the BOM line name as a prefix to the name of layers from the BOM line drawing.</td></tr><tr><td>**Post**</td><td>Adds the BOM line name as a suffix to the name of layers from the BOM line drawing.</td></tr></table> | Optional | False |

| Setting | Description | | Required? | Internal Default |
|---------|-------------|---|-----------|------------------|
| | **False** | If the ICE session drawing already has a layer definition for a layer named in the BOM line drawing, uses the existing ICE session drawing layer definition. | | |
| Write Layout Tabs to PDF [Single / Separate] | For the **Write Layout Tabs to PDF** command, how to plot the contents of the layout tabs. | | Optional | Single |
| | **For this value** | **ICE does this** | | |
| | **Single** | Creates a single multi-page PDF file.<br><br>The naming pattern for the PDFDATASET and its named reference PDF file is **ICE_[BOM Line Name]**. | | |
| | **Separate** | Creates a separate single-page PDF file for each layout.<br><br>Naming of the PDF files depends on the onlyUseOnce value defined for the PDF IMAN_manifestation relation:<br><br>If onlyUseOnce=True, a separate PDFDATASET is created for each layout, and the naming pattern for the datasets and PDF files is **ICE_[Layout Name]**.<br><br>If onlyUseOnce=False, a single PDFDATASET is created for the layout files. The dataset naming pattern is **ICE_[BOM Line Name]** and the user is prompted for the name for each PDF file. | | |
| Update PDF Attachments on Publish [True / False] | **For this value** | **Upon publish, ICE does this** | Optional | False |
| | **True** | If the BOM line has not been modified, ICE makes no change to the PDF attachments.<br><br>If the BOM line has been modified:<br><br>1. ICE checks for existing PDF dataset attachments with the name prefix **ICE_**.<br><br>If the BOM line does not have any **ICE_** PDF dataset, ICE does not create the layout PDFs or PDF dataset.<br><br>2. If the BOM line has any **ICE_** PDF datasets that were not created in the current session of AutoCAD, ICE deletes | | |

| Setting | Description | | Required? | Internal Default |
|---|---|---|---|---|
| | them and creates new dataset(s) from layout tabs named with the **ICE_** prefix.<br><br>**Note**<br><br>If a user has manually created a PDF dataset with an **ICE_** prefix, the attachment is treated as a layout PDF dataset and is deleted during the automatic update on publish.<br><br>If a user has changed a PDF attachment name and removed the **ICE_** prefix, ICE does not treat it as a layout attachment. Such an attachment is not deleted during automatic update.<br><br>3.   ICE attaches the new dataset(s) to the BOM line, based upon the PDF dataset definition in the configuration file. | | | |
| | **False** | ICE does not create layout PDFs and makes no change to existing PDF attachments. | | |
| Delete Unused Layers [True/False] | **For this value** | **Upon publish, ICE does this** | Optional | True |
| | **True** | Only Layers that are currently used by entities in that BOM Line will be saved to the dwg. | | |
| | **False** | **Rename Layer** Off: All layers in current ICE session will be saved to the dwg.<br><br>**Rename Layer** On: The following will be saved to the dwg.<br><br>•   All layers in the original BOM Line dwg.<br><br>•   Any new layers added from ICE template or in ICE session that are not renamed with another BOM Line name.<br><br>•   Any additional layers that contain entities in that BOM Line even if they are renamed within another BOM Line. | | |

| Setting | Description | Required? | Internal Default |
|---------|-------------|-----------|------------------|
|         | **Note**<br><br>Prefixes for the layer names are not saved to the dwg. |  |  |

**Example**

| | Delete Unused Layers On (Default) | Delete Unused Layers Off | |
|---|---|---|---|
| | | Rename Layers Off (Default) | Rename Layers On |
| *Layer* | *Published with BOM Line A* | *Published with BOM Line A* | *Published with BOM Line A* |
| Layer used by entities in BOM Line A | Yes | Yes | Yes |
| Layer in original BOM Line A dwg that is not currently used by BOM Line A | No | Yes | Yes |
| Layer added in ICE session by another drawing that is not currently used by BOM Line A (renamed) | No | Yes | No |
| Layer added in ICE session not currently used by BOM Line A (not renamed) | No | Yes | Yes |
| Layers included in template not used by BOM Line A | No | Yes | Yes |

## JT import scaling

When JT geometry is imported to AutoCAD by means of FactoryCAD or In Context Editor, the JT entities are scaled to match the drawing units.  The drawing units are determined based on the following priority order:

1. The configuration file setting **JT Insertion Units** in Factory and In Context Editor configuration files.

   (The default Factory configuration file name is **FactoryConfig.xml** and the default ICE configuration file name is **IceConfig.xml**; another file name may have been specified during installation, and the Factory and ICE configurations may have been consolidated in a single file.)

   > **Note**
   >
   > - The **JT Insertion Units** in **FactoryConfig.xml** are used to scale JT geometry for inclusion in XML objects and the generic tool object.
   >
   > - The **JT Insertion Units** in **IceConfig.xml** are used when loading BOM lines with JT datasets or adding JT datasets in hybrid mode.
   >
   > Best practice is to set **JT Insertion Units** to the same value in the Factory and ICE configuration files.

   ```
   <Setting name="JT Insertion Units [Inches/Millimeters/Undefined]" value="Undefined" />
   ```

   This setting should match the units of your drawing, or should be set to **Undefined** to use one of the values below.

2. If the **JT Insertion Units** value does not exist in the configuration file or is set to **Undefined**, the Factory Drawing Units value is used.

3. If the Factory Drawing Units value is not defined, the AutoCAD variable INSUNITS value is used.

   This situation exists only for ICE users who do not have FactoryCAD installed on their machine.

4. If the current AutoCAD variable INSUNITS value is set to Unitless, then Inches are used.

# Data transfer settings

Settings that apply to SOA data transfer between Teamcenter and ICE.

```xml
▼<Setting name="Sync BOMLine Name to Block Attributes on Revision [True/False]" value="False">
  ▼<BOMLineNameFormats>
     <BOMLineNameFormat blockName="TITLE" attribute="PRIME"/>
     <BOMLineNameFormat blockName="TITLE" attribute="F"/>
     <BOMLineNameFormat blockName="TITLE" attribute="S"/>
     <BOMLineNameFormat blockName="TITLE" attribute="SHEET"/>
     <BOMLineNameFormat blockName=" " attribute="--"/>
     <BOMLineNameFormat blockName="CHANGE_IN" attribute="SYM"/>
     <BOMLineNameFormat blockName="TITLE" attribute="ITEM"/>
     <BOMLineNameFormat blockName="TITLE" attribute="LOC"/>
  </BOMLineNameFormats>
</Setting>
▼<Setting name="Sync Dataset Name to Block Attributes on Revision [True/False]" value="False">
  ▼<DataSetNameFormats>
     <DataSetNameFormat blockName="TITLE" attribute="PRIME"/>
     <DataSetNameFormat blockName="TITLE" attribute="F"/>
     <DataSetNameFormat blockName="TITLE" attribute="S"/>
     <DataSetNameFormat blockName="TITLE" attribute="SHEET"/>
     <DataSetNameFormat blockName=" " attribute="--"/>
     <DataSetNameFormat blockName="CHANGE_IN" attribute="SYM"/>
     <DataSetNameFormat blockName="TITLE" attribute="ITEM"/>
     <DataSetNameFormat blockName="TITLE" attribute="LOC"/>
  </DataSetNameFormats>
</Setting>
▼<Setting name="Sync FileReference Name to Block Attributes on Revision [True/False]" value="False">
  ▼<FileReferenceNameFormats>
     <FileReferenceNameFormat blockName="TITLE" attribute="PRIME"/>
     <FileReferenceNameFormat blockName="TITLE" attribute="F"/>
     <FileReferenceNameFormat blockName="TITLE" attribute="S"/>
     <FileReferenceNameFormat blockName="TITLE" attribute="SHEET"/>
     <FileReferenceNameFormat blockName=" " attribute="--"/>
     <FileReferenceNameFormat blockName="CHANGE_IN" attribute="SYM"/>
     <FileReferenceNameFormat blockName="TITLE" attribute="ITEM"/>
     <FileReferenceNameFormat blockName="TITLE" attribute="LOC"/>
  </FileReferenceNameFormats>
</Setting>
```

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| SyncBOMLine Name to Block Attributes on Revision [True/False] | Create a BOM line name from the attached drawing's block attributes when a new revision is created.<br><br>**BOMLineNameFormats** describe the block attributes from which to collect values for the BOM line name.<br><br>**Note**<br><br>When a specified blockName and attribute is not found in a drawing, the attribute name is substituted. | Optional | False |

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| | An empty blockName value can be specified, in which case the specified attribute value is used.<br><br>In Context Editor has no internal default values for BOMLineNameFormats. | | |
| SyncDataset Name to Block Attributes on Revision [True/False] | Create a dataset name from the drawing's block attributes when a new BOMLine revision is created.<br><br>**DataSetNameFormats** describe the block attributes from which to collect values for the dataset name.<br><br>**Note**<br><br>When a specified blockName and attribute is not found in a drawing, the attribute name is substituted.<br><br>An empty blockName value can be specified, in which case the specified attribute value is used.<br><br>In Context Editor has no internal default values for DataSetNameFormats. | Optional | False |
| Sync FileReference Name to Block Attributes on Revision [True/False] | Create a file reference name from the drawing's block attributes when a new BOMLine revision is created.<br><br>**FileReferenceNameFormats** describe the block attributes from which to collect values for the file reference name.<br><br>**Note**<br><br>When a specified blockName and attribute is not found in a drawing, the attribute name is substituted.<br><br>An empty blockName value can be specified, in which case the specified attribute value is used.<br><br>In Context Editor has no internal default values for FileReferenceNameFormats. | Optional | False |

```
<UniquenessQuerys>
  <Setting name="Check Uniqueness On Publish [True/False]" value="False"/>
  <Setting name="Uniqueness Button on Dialog [True/False]" value="False"/>
  <Setting name="Use Owning Group [True/False]" value="True"/>
  <Setting name="Use Owning User [True/False]" value="False"/>
  ▼<UniquenessQuery type="ACADDWG" relation="IMAN_specification" name="ICE Uniqueness Check" attributeName="Name" attributeLength="26">
     <Setting name="Unique Data [BOM Line ID/BOM Line Name/BOM Line Description/Dataset Name/Dataset Description/Block/FileName]" value="BOM Line Name"/>
     <UniqueDataFormat start="5" length="3" wildcardStart="7"/>
     <UniqueDataFormat start="13" length="4" wildcardStart="20"/>
  </UniquenessQuery>
  ▼<UniquenessQuery type="ACADDWG" relation="IMAN_specification" name="ICE Uniqueness Check Forms" attributeName="Local_Tool_ID" attributeLength="14">
     <Setting name="Unique Data [BOM Line ID/BOM Line Name/BOM Line Description/Dataset Name/Dataset Description/Block/FileName]" value="Block"/>
     <Mapping blockName="HEAD" attribute="LOC" propertyName="Local_Tool_ID"/>
     <Mapping blockName="HEAD2" attribute="LOC" propertyName="Local_Tool_ID"/>
     <UniqueDataFormat start="5" length="3" wildcardStart="7"/>
     <UniqueDataFormat start="13" length="4" wildcardStart="20"/>
  </UniquenessQuery>
  ▼<UniquenessQuery type="MSExcel" relation="IMAN_reference" name="ICE Uniqueness Check Form" attributeName="Local_Tool_ID" attributeLength="26">
     <Setting name="Unique Data [BOM Line ID/BOM Line Name/BOM Line Description/Dataset Name/Dataset Description/Block/FileName]" value="FileName"/>
     <Mapping start="0" length="10" propertyName="Local_Tool_ID"/>
     <Mapping start="-1" length=" " propertyName="Local_Tool_ID"/>
     <Mapping start="11" length="1" propertyName="Local_Tool_ID"/>
     <Mapping start="12" length="1" propertyName="Local_Tool_ID"/>
     <Mapping start="-1" length=" " propertyName="Local_Tool_ID"/>
     <Mapping start="13" length="4" propertyName="Local_Tool_ID"/>
     <Mapping start="-1" length=" " propertyName="Local_Tool_ID"/>
     <Mapping start="22" length="3" propertyName="Local_Tool_ID"/>
  </UniquenessQuery>
</UniquenessQuerys>
```

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| Uniqueness Querys | All UniquenessQuerys settings are optional. Specifications related to determining uniqueness of BOM Line item, form, and dataset values within the Teamcenter database. | Optional | False |

| Setting | Description |
|---|---|
| Check Uniqueness On Publish [True/False] | Run uniqueness queries as part of a Publish operation. Data that is not unique will not be published from ICE. |
| Uniqueness Button on Dialog [True/False] | Include a Validate Uniqueness command button above the BOM Pane of the ICE palette. |
| Use Owning Group [True/False] | Use the Owning Group value as part of the query. |
| Use Owning User [True/False] | Use the Owning User value as part of the query. |
| Uniqueness Query | Identifies the datasets and their ICE data elements to be compared with existing Teamcenter dataset property values.<br><br>**type** and **relation** – as defined in the **Datasets** section of the configuration file.<br><br>**name** – name of the query defined in Teamcenter. |

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| | **attributeName** – the name of the value defined in the Teamcenter query.<br><br>**attributeLength** – length of the attributeName that the query applies to.<br><br>**Unique Data [BOM Line ID/BOM Line Name/BOM Line Description/Dataset Name/Dataset Description/Block/FileName]** the ICE data element to compare with the Teamcenter attribute value.<br>**UniqueDataFormat** – the portions of the data element to consider when determining uniqueness. If no portions are defined, the entire element is considered.<br><br>**Mapping** – the series of values that combine to form the value to be compared with a Teamcenter property. **propertyName** stores the concatenated value and must be the same on each line in the series.<br><br>• when the data element is set to **Block**, the block name and attribute value. An empty **blockName** value can be used to add the contents of the **attribute** tag on the same line.<br><br>• when the data element is set to **FileName**, the dataset file name portions. A negative **start** number plus an empty **length** value can be used to remove the end portion of value added in the previous line. | | |

```
<ItemFormTypes>
▼<ItemFormType type="MEWorkarea Master" relation="IMAN_master_form" syncNewForms="False" syncExistingForms="False">
    <Setting name="DataFromDwg [Block/FileName]" value="Block"/>
    <Mapping blockName="HEAD" attribute="LOC" propertyName="Local_Tool_ID"/>
    <Mapping blockName="HEAD2" attribute="LOC" propertyName="Local_Tool_ID"/>
    <Mapping blockName="" attribute="25.753" propertyName="cost"/>
 </ItemFormType>
▼<ItemFormType type="MSExcel" relation="IMAN_reference" itemFormType="MEWorkarea Master" itemFormRelation="IMAN_master_form" syncNewForms="False"
  syncExistingForms="False">
    <Setting name="DataFromDwg [Block/FileName]" value="FileName"/>
    <Mapping start="0" length="10" propertyName="Local_Tool_ID"/>
    <Mapping start="-1" length=" " propertyName="Local_Tool_ID"/>
    <Mapping start="11" length="1" propertyName="Local_Tool_ID"/>
    <Mapping start="12" length="1" propertyName="Local_Tool_ID"/>
    <Mapping start="-1" length=" " propertyName="Local_Tool_ID"/>
    <Mapping start="13" length="4" propertyName="Local_Tool_ID"/>
    <Mapping start="-1" length=" " propertyName="Local_Tool_ID"/>
    <Mapping start="22" length="3" propertyName="Local_Tool_ID"/>
 </ItemFormType>
</ItemFormTypes>
```

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| ItemForm Types | All ItemFormTypes settings are optional. Each item in Teamcenter has a form. The **ItemFormTypes** section defines the construction of property values for an item form from mappings of block or filename values. The mappings can be used to populate or overwrite form property values during a publish operation.<br><br>• When **syncNewForms** is set to True, during a publish operation ICE pushes to Teamcenter the constructed property values.<br><br>• When **syncExistingForms** is set to True, during a publish operation ICE pushes to Teamcenter the constructed property values.<br><br>In the first example ItemFormType shown above, either of two blocks could be used to build the value. In this case, if a drawing contains a block with the name "HEAD", the value is added from that block. If no block named "HEAD" is found for a particular attribute, ICE attempts to find a block named "HEAD2".<br><br>Characteristics of the ItemFormTypes section:<br><br>• Like attributes must be adjacent in the configuration file in order for multi-block checking to work.<br><br>• An empty blockName value can be used to put a fixed attribute value into the Teamcenter classification, as in "25.73" for the property "cost" in the example above. An empty blockName value plus an empty attribute value could be used to clear a value from the form. | Optional | None |

```
<ClassificationTypes>
 ▼<ClassificationType type="ACADDWG" relation="IMAN_specification" classifyNewRevisions="False" updateBlockAttributesonCheckout="False" classId="PTDMS">
    <Mapping blockName="HEAD" attribute="LOC" attributeId="501000"/>
    <Mapping blockName="HEAD2" attribute="LOC" attributeId="501000"/>
    <Mapping blockName="HEAD" attribute="DEPT" attributeId="501001"/>
    <Mapping blockName="HEAD2" attribute="DEPT" attributeId="501001"/>
    <Mapping blockName="HEAD" attribute="ORDER" attributeId="501002"/>
    <Mapping blockName="HEAD2" attribute="ORDER" attributeId="501002"/>
    <Mapping blockName="HEAD" attribute="MACHNUM" attributeId="501003"/>
    <Mapping blockName="HEAD2" attribute="MACHNUM" attributeId="501003"/>
    <Mapping blockName="HEAD" attribute="" attributeId="501004"/>
    <Mapping blockName="HEAD2" attribute="" attributeId="501004"/>
    <Mapping blockName="HEAD" attribute="STA" attributeId="501005"/>
    <Mapping blockName="HEAD2" attribute="STA" attributeId="501005"/>
    <Mapping blockName="HEAD" attribute="TITLE" attributeId="501006"/>
    <Mapping blockName="HEAD2" attribute="TITLE" attributeId="501006"/>
    <Mapping blockName="" attribute=" \ " attributeId="501006"/>
    <Mapping blockName="HEAD" attribute="TITLE2" attributeId="501006"/>
    <Mapping blockName="HEAD2" attribute="TITLE2" attributeId="501006"/>
    <Mapping blockName="HEAD" attribute="OPNUMBER" attributeId="501007"/>
    <Mapping blockName="HEAD2" attribute="OPNUMBER" attributeId="501007"/>
    <Mapping blockName="HEAD" attribute="SHEET" attributeId="501008"/>
    <Mapping blockName="HEAD2" attribute="SHEET" attributeId="501008"/>
    <Mapping blockName="HEAD" attribute="PRIME" attributeId="501009"/>
    <Mapping blockName="HEAD2" attribute="PRIME" attributeId="501009"/>
    <Mapping blockName="HEAD" attribute="F" attributeId="501010" length="1"/>
    <Mapping blockName="HEAD2" attribute="F" attributeId="501010" length="1"/>
    <Mapping blockName="HEAD" attribute="S" attributeId="501010" length="1"/>
    <Mapping blockName="HEAD2" attribute="S" attributeId="501010" length="1"/>
    <Mapping blockName="HEAD" attribute="ITEM" attributeId="501011"/>
    <Mapping blockName="HEAD2" attribute="ITEM" attributeId="501011"/>
    <Mapping blockName="CHANGE_ROW" attribute="CDATE" attributeId="501012"/>
    <Mapping blockName="CHANGE_ROW" attribute="SYM" attributeId="501013"/>
    <Mapping blockName="CHANGE_ROW" attribute="REVISION/RECORD" attributeId="501014"/>
    <Mapping blockName="" attribute=" \ " attributeId="501014"/>
    <Mapping blockName="CHANGE_ROW" attribute="AENDERUNG" attributeId="501014"/>
    <Mapping blockName="" attribute="NO" attributeId="501015"/>
    <Mapping blockName="HEAD" attribute="PTNAME" attributeId="501017"/>
    <Mapping blockName="HEAD2" attribute="PTNAME" attributeId="501017"/>
    <Mapping blockName="" attribute=" \ " attributeId="501017"/>
    <Mapping blockName="HEAD" attribute="PTNAME2" attributeId="501017"/>
    <Mapping blockName="HEAD2" attribute="PTNAME2" attributeId="501017"/>
    <Mapping blockName="" attribute="" attributeId="501018"/>
    <Mapping blockName="HEAD" attribute="MACHNAME" attributeId="501019"/>
    <Mapping blockName="HEAD2" attribute="MACHNAME" attributeId="501019"/>
    <Mapping blockName="" attribute=" \ " attributeId="501019"/>
    <Mapping blockName="HEAD" attribute="MACHINE" attributeId="501019"/>
    <Mapping blockName="HEAD2" attribute="MACHINE" attributeId="501019"/>
    <Mapping blockName="" attribute="" attributeId="501020"/>
    <Mapping blockName="" attribute="" attributeId="501021"/>
  </ClassificationType>
</ClassificationTypes>
```

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| Classification Types | All ClassificationTypes settings are optional.  A Teamcenter administrator can set up classification types which can be used to classify item revisions. The ClassificationTypes section of the configuration file shown above maps attributes of a PTDMS classification type to block attributes of an AutoCAD drawing, where that drawing has an IMAN_specification relationship to a BOM line. By means of the mapping, ICE can exchange data between the item revision classification and drawing block(s):<br><br>• When **classifyNewRevisions** is set to True, during a publish operation, ICE pushes attribute values from drawing blocks into the item revision classification in Teamcenter.<br><br>• When **updateBlockAttributesonCheckout** is set to True, during a checkout operation ICE pulls classification values from Teamcenter and inserts them into block attributes in the drawing. | Optional | None |

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| | In the example ClassificationType shown above, either of two blocks could be used to exchange classification type values between Teamcenter and an AutoCAD drawing. In this case, if a drawing contains a block with the name "HEAD", the exchange is made with that block. If no block named "HEAD" is found for a particular attribute, ICE attempts to make an exchange with a block named "HEAD2".<br><br>Characteristics of the ClassificationType section:<br><br>• Like attributes must be adjacent in the configuration file in order for multi-block checking to work.<br><br>• Attribute values can be concatenated by means of empty values ("") plus a delimiter, as in MACHNAME\MACHINE for the classification 501019 in the example above.<br><br>• An empty blockName value can be used to put a fixed attribute value into the Teamcenter classification, including an empty value as shown in the example. | | |

```
<Setting name="Sync New Forms [True/False]" value="False"/>
<Setting name="Sync Existing Forms [True/False]" value="False"/>
<Setting name="Update Classifications on Modifications [True/False]" value="False"/>
<Setting name="Update Block Attributes on Checkout [True/False]" value="False"/>
<Setting name="Class Id" value="PTDMS"/>
<Setting name="Publish and Release Icons on Dialog [True/False]" value="False"/>
<Setting name="Release Item Revisions on Publish [True/False]" value="False"/>
<Setting name="Release Datasets on Publish [True/False]" value="False"/>
<Setting name="Classify New Revisions Before/After Release [Before/After/None]" value="None"/>
<Setting name="Revise After Publish [True/False]" value="False"/>
<Setting name="Revise Before Dataset Publish [True/False]" value="False"/>
<Setting name="Revise On Checkout [True/Prompt/False]" value="False"/>
<Setting name="Release Item Revision before Revise [True/False]" value="False"/>
<Setting name="Release Datasets before Revise [True/False]" value="False"/>
<Setting name="Item Revision Release Status" value="TCM Released"/>
<Setting name="Dataset Release Status" value="TCM Released"/>
```

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| Sync New Forms [True/False] | During a Publish of a new BOM Line drawing, pushes data to Teamcenter the master form from block attribute or filename values according the settings in the **ItemFormTypes** section. | Optional | None |
| Sync Existing Forms [True/False] | During a Publish of a modified BOM Line drawing, pushes to Teamcenter the master form data from block attributes in the drawing according the settings in the **ItemFormTypes** section. | Optional | None |

| Setting | Description | Required? | Internal Default |
|---------|-------------|-----------|------------------|
| Update Classifications on Modifications [True/False] | Applies ClassificationTypes mappings to populate item revision classification values in Teamcenter from block attributes when an ICE publish operation uploads a modified dataset to Teamcenter.<br><br>**Note**<br><br>A setting of the same name in the TcApi configuration file applies to classification attribute values stored in BOM lines. The two locations for classification values are distinct.<br><br>**Note**<br><br>If In Class Object propagation during revise has been disabled in Teamcenter, this setting has no effect. | Optional | False |
| Update Block Attributes on Checkout [True/False] | Applies ClassificationTypes to populate block attributes with item revision classification values from Teamcenter when an ICE checkout operation occurs. This general setting must be True for any classification actions to occur. The **updateBlockAttributesonCheckout** setting for an individual ClassificationType can be set to False to prevent that classification from being applied. | Optional | False |
| Class Id | The Teamcenter classification to use for ICE classification operations. | Optional | None |
| Publish and Release Icons on Dialog [True/False] | Adds two command icons to the ICE palette: **Publish All and Release** and **Publish BOM Line and Release**.<br><br>The commands release BOM lines and datasets according to the values of the settings **Release Item Revisions On Publish** and **Release Datasets On Publish**. | Optional | False |
| Release Item Revisions on Publish [True/False] | Relevant for the commands **Publish All and Release** and **Publish BOM Line and Release**. After the publish is completed, sets the latest created revision to *released*. The release status is set according to the **Item Revision Release Status** parameter. | Optional | None |
| Release Datasets on Publish [True/False] | Relevant for the commands **Publish All and Release** and **Publish BOM Line and Release**. After the publish is completed, the latest revision's datasets of types defined in ReleaseTypes parameter list are set to released. The release status is set according to the **Dataset Release Status** parameter. | Optional | False |

| Setting | Description | Required? | Internal Default |
|---------|-------------|-----------|------------------|
| Classify New Revisions Before/After Release [Before/After/None] | Applies ClassificationTypes to populate item revision classification values in Teamcenter when an ICE publish operation creates a new revision. This general setting must be set to **Before** or **After** for any classification actions to occur.<br><br>The **classifyNewRevisions** setting for an individual ClassificationType can be set to False to prevent that classification from being applied.<br><br>**Note**<br>The ability to choose to classify before or after release supports Teamcenter configurations that only allow Released or only allow Working data to be classified. | Optional | None |
| Revise After Publish [True/False] | Revises after BOM line or dataset publish (any of them or both in the same update). | Optional | False |
| Revise Before Dataset Publish [True/False] | Creates a BOMview Revision when publishing a modified dataset.<br><br>If set to True, the following are true:<br><br>• Revises the BOM Line and saves the modified dataset to the new item revision.<br><br>• If the setting **Release Datasets Before Revise** is set to True, releases the original dataset.<br><br>• If the setting **Release Item Revision Before Revise** is set to True and the BOM Line is working, releases the original BOM Line before revising. | Optional | False |
| Revise on Checkout [True/Prompt/False] | Revises the item revision (IR) upon **Checkout BOM Line**, **Checkout Dataset**, or **Checkout Complete** if the IR is "released" or the dataset is "released".<br><br>• **True** – Revision occurs automatically.<br><br>• **Prompt** – A prompt describing content release status appears and asks for confirmation before revising.<br><br>After the revise occurs, a new revision is loaded to the ICE session if in Teamcenter the **Default Revision Rule** is set to **Latest Working**. | Optional | False |

| Setting | Description | Required? | Internal Default |
|---------|-------------|-----------|------------------|
| Release Item Revision before Revise [True/False] | Required if **Revise on Checkout** is set to True. Relevant for any scenario of revising when the item revision is in working state prior to the revising.<br><br>**Note**<br><br>Releasing needs to be done prior to a revise operation when Teamcenter is configured to not allow multiple working revisions. | Conditional | False |
| Release Datasets before Revise [True/False] | Each time an item revision is revised, its datasets of types defined in the ReleaseTypes parameter list are set to released.  The release status is set according to **Dataset Release Status** parameter. | Optional | False |
| Item Revision Release Status | Required if **Release Item Revisions on Publish** is set to True or if **Release Item Revision before Revise** is set to True. Name of the Teamcenter process to use for releasing item revisions. | Conditional | None |
| Dataset Release Status | Required if **Release Dataset on Publish** is set to True or if **Release Datasets before Revise** is set to True . Name of the Teamcenter process to use for releasing modified dataset attachments. | Conditional | None |

```
▼<ReviseTypes>
    <ReviseType type="ACADDWG" description="DWG" relation="IMAN_specification"/>
    <ReviseType type="MSExcel" description="excel" relation="IMAN_reference"/>
  </ReviseTypes>
▼<DeleteSecondaryReviseTypes>
    <ReviseType type="DirectModel" description="JTPART" relation="IMAN_Rendering"/>
  </DeleteSecondaryReviseTypes>
```

| Setting | Description | Required? | Internal Default |
|---------|-------------|-----------|------------------|
| ReviseTypes | Required if **Revise Before Dataset Publish** is set to True. Dataset types for which modification will lead to revising of their Item Revision during a Publish operation. | Conditional | None |
| Delete Secondary ReviseTypes | When creating a new revision as part of a publish operation, deletes the specified type of secondary BOM line attachments from the new revision. | Optional | None |

```
▼<ReleaseTypes>
    <ReleaseType type="ACADDWG" relation="IMAN_specification"/>
    <ReleaseType type="MSExcel" relation="IMAN_reference"/>
  </ReleaseTypes>
  <Setting name="Project List Time Filter [LastModified/DateCreated/None]" value="None"/>
  <Setting name="Project List Time Filter Days [Any Valid Integer]" value="90"/>
```

| Setting | Description | Required? | Internal Default |
|---|---|---|---|
| ReleaseTypes | Required if at least one of the following settings is set to True:<br><br>**Release Item Revisions on Publish**<br><br>**Release Datasets before Revise**<br><br>Identifies datasets to be considered for ICE release actions. | Conditional | None |
| `<Setting name="Project List Time Filter [LastModified/DateCreated/None]" value="None"/>`<br>`<Setting name="Project List Time Filter Days [Any Valid Integer]" value="90"/>` | | | |
| Project List Time Filter | Specifies a filter type by which to limit the list of projects.<br><br>When working with a large database, applying a filter can significantly reduce the time required to populate the list. Performance with databases prior to Teamcenter Release 10 will be most affected by use of this setting. The setting is probably not necessary for using ICE with Teamcenter Release 10 or later. | Optional | None |
| Project List Time Filter Days | Required if **Project List Time Filter** is specified. Duration (in days) for the filter. | Conditional | None |

## ProjectListColumns section

Settings to control default visibility of columns in the ICE project list palette. User settings for column visibility supersede default settings.

```
<ProjectListColumns>
  <ProjectListColumn name="Type" shown="True"/>
  <ProjectListColumn name="Owning User" shown="False"/>
  <ProjectListColumn name="Owning Group" shown="False"/>
  <ProjectListColumn name="Revision Rule" shown="False"/>
  <ProjectListColumn name="Variant Rule" shown="False"/>
  <ProjectListColumn name="Last Modified Date" shown="False"/>
  <ProjectListColumn name="Creation Date" shown="False"/>
  <ProjectListColumn name="Drawing" shown="True"/>
</ProjectListColumns>
```

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|
| Type | Show the **Type** column. | Optional | True |
| Owning User | Show the **Owning User** column. | Optional | False |
| Owning Group | Show the **Owning Group** column. | Optional | False |
| Revision Rule | Show the **Revision Rule** column. | Optional | False |
| Variant Rule | Show the **Variant Rule** column | Optional | False |
| Last Modified Date | Show the **Last Modified Date** column. | Optional | False |
| Creation Date | Show the **Creation Date** column. | Optional | False |
| Drawing | Show the **Drawing** column. | Optional | True |

## ProjectPaletteColumns section

Settings to control default visibility of columns in an ICE project structure palette. User settings for column visibility supersede default settings.

```
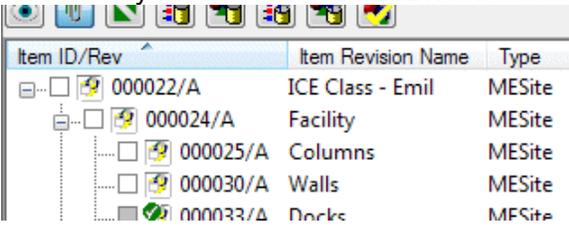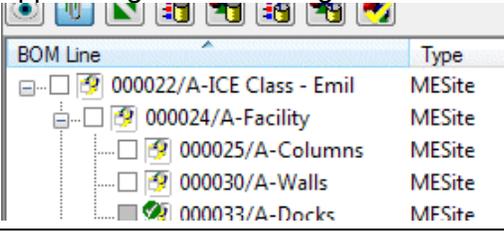<ProjectPaletteColumns>
  <ProjectPaletteColumn name="Item ID/Rev" shown="True"/>
  <ProjectPaletteColumn name="Type" shown="True"/>
  <ProjectPaletteColumn name="Checked Out by" shown="True"/>
  <ProjectPaletteColumn name="Owning User" shown="False"/>
  <ProjectPaletteColumn name="Owning Group" shown="False"/>
  <ProjectPaletteColumn name="Last Modified Date" shown="False"/>
  <ProjectPaletteColumn name="Description" shown="False"/>
  <ProjectPaletteColumn name="Transform" shown="False"/>
</ProjectPaletteColumns>
```

| Subsection / Setting | Description | Required? | Internal Default |
|---|---|---|---|
| Separate BOM line ID and name [True/False] | Separates the item ID+revision number and the revision name into two columns.<br><br>The item revision name is always shown in the structure.<br><br>If **Separate BOM line ID and name** is set to True, the item revision name appears alone in its own **Item Revision Name** column, and display of the item ID and revision number in a separate column can be turned on or off by means of the **ItemID/Rev** column setting.<br><br>If **Separate BOM line ID and name** is set to False, the item ID/revision number and item revision name appear together in a single **BOM Line** column. | Optional | False |
| Item ID/Rev | Show the **Item ID/Rev** column.<br><br>**Note**<br><br>If **Separate BOM line ID and name** is set to False, then the **ItemID/Rev** column is unavailable. | Optional | True |

| Type | Show the **Type** column. | Optional | True |
|---|---|---|---|
| Owning User | Show the **Owning User** column. | Optional | False |
| Owning Group | Show the **Owning Group** column. | Optional | False |
| Last Modified Date | Show the **Last Modified Date** column. | Optional | False |
| Description | Show the **Description** column. | Optional | False |
| Transform | Show the **Transform** column. | Optional | False |

## FilterObjects section

Settings to filter out BOM lines and JT geometry display that are considered irrelevant to ICE. No settings are required and there are no internal default values.

```xml
▼<FilterObjects>
  ▼<?To
     use the ICE filters in below section, Set the value of this setting True
   ?>
   <Setting name="Use Hierarchy Filtering [True/False]" value="False"/>
   <?Uncomment the lines below to define object filters?>
  ▼<?Add
     'Type' elements with 'name' attribute for each relevant filter section based on the examples below
   ?>
   <?Adding of specific Occurrence types is optional?>
  ▼<?If
     Occurrence types are not added, ItemRevision with any occurrence type will be filtered
   ?>
   <!-- <ItemRevisionTypesToExcludeSubHierarchy> -->
   <!--    <Type name="MyItemRevisionA"/> -->
   <!--    <Type name="MyItemRevisionB"> -->
   <!--          <Occurrences> -->
   <!--               <Type name="OccurrenceType"/> -->
   <!--          </Occurrences> -->
   <!--    </Type> -->
   <!-- </ItemRevisionTypesToExcludeSubHierarchy> -->
   <!-- <ItemRevisionTypesToExcludeWithHierarchy> -->
   <!--    <Type name="MyItemRevisionC"/> -->
   <!--    <Type name="MyItemRevisionD"> -->
   <!--          <Occurrences> -->
   <!--               <Type name="OccurrenceType"/> -->
   <!--          </Occurrences> -->
   <!--    </Type> -->
   <!-- </ItemRevisionTypesToExcludeWithHierarchy> -->
   <!-- <DatasetTypesToExcludeIRSubHierarchy> -->
   <!--    <Type name="MyDataset"/> -->
   <!-- </DatasetTypesToExcludeIRSubHierarchy> -->
   <!-- <ItemRevisionTypesToExcludeGeometryInHybridMode> -->
   <!--    <Type name="MyItemRevisionE"/> -->
   <!--    <Type name="MyItemRevisionF"> -->
   <!--          <Occurrences> -->
   <!--               <Type name="OccurrenceType"/> -->
   <!--          </Occurrences> -->
   <!--    </Type> -->
   <!-- </ItemRevisionTypesToExcludeGeometryInHybridMode> -->
</FilterObjects>
```

| Subsection / Setting | Description |
| --- | --- |
| Use Hierarchy Filtering [True/False] | Enables or disables the object filtering. This functionality requires the Teamcenter MetaData file to be loaded, which can add time to the loading of the project list. If filtering is not being used then there is no need to download this file.<br><br>This setting is Optional.<br><br>Internal Default: False |

| | |
|---|---|
| Item Revision Types To Exclude Sub Hierarchy | When a BOM line has an item revision type that is defined in this subsection, its children are removed from the structure sent from Teamcenter to ICE.<br><br>Item revision type definitions can be further limited by occurrence type.<br><br>**Example**<br><br>```\n<ItemRevisionTypesToExcludeSubHierarchy>\n    <Type name="MyItemRevisionA"/>\n    <Type name="MyItemRevisionB">\n        <Occurrences>\n            <Type name="OccurrenceType"/>\n        </Occurrences>\n    </Type>\n</ItemRevisionTypesToExcludeSubHierarchy>\n```<br><br>• All children of a BOM line that has item revision type *MyItemRevisionA* are filtered out.<br><br>• All children of a BOM line that has item revision type *MyItemRevisionB* with an occurrence type of *occurrenceType* are filtered out.  Children of a BOM line that has item revision type *MyItemRevisionB* and any other occurrence type, or no occurrence type, are not filtered out. |
| Item Revision Types To Exclude With Hierarchy | When a BOM line has an item revision type that is defined in this subsection, the BOM line and its children are removed from the structure sent from Teamcenter to ICE.<br><br>Item revision type definitions can be further limited by occurrence type.<br><br>**Example**<br><br>```\n<ItemRevisionTypesToExcludeWithHierarchy>\n    <Type name="MyItemRevisionC"/>\n    <Type name="MyItemRevisionD">\n        <Occurrences>\n            <Type name="OccurrenceType"/>\n        </Occurrences>\n    </Type>\n</ItemRevisionTypesToExcludeWithHierarchy>\n```<br><br>• Any BOM line that has item revision type *MyItemRevisionC*, and its children, are filtered out.<br><br>• Any BOM line that has item revision type *MyItemRevisionD* with an occurrence type of *OccurrenceType*, and its children, are filtered out. BOM lines that have item revision type *MyItemRevisionD* and any other occurrence type, or no occurrence type, are not filtered |

| Dataset Types To Exclude IR Sub Hierarchy | When a BOM line item revision has an associated dataset type that is defined in this section, its children are removed from the structure sent from Teamcenter to ICE. |
|---|---|
| | **Example**<br><br>```<br><DatasetTypesToExcludeIRSubHierarchy><br>    <Type name="MyDataset"/><br></DatasetTypesToExcludeIRSubHierarchy><br>```<br><br>• All children of a BOM line that has an associated dataset of type *MyDataset* are filtered out. |
| Item Revision Types To Exclude Geometry In Hybrid Mode | When a BOM line has an item revision type that is defined in this section, no JT file associated with the BOM Line is loaded in ICE, even if Hybrid Mode is enabled.<br><br>Item revision type definitions can be further limited by occurrence type. |
| | **Example**<br><br>```<br><ItemRevisionTypesToExcludeGeometryInHybridMode><br>    <Type name="MyItemRevisionE"/><br>    <Type name="MyItemRevisionF"><br>        <Occurrences><br>            <Type name="OccurrenceType"/><br>        </Occurrences><br>    </Type><br></ItemRevisionTypesToExcludeGeometryInHybridMode><br>```<br><br>• When a BOM line has item revision type *MyItemRevisionE*, any associated JT dataset is filtered out.<br><br>• When a BOM line has item revision type *MyItemRevisionF* with an occurrence type of *OccurrenceType*, any associated JT dataset is filtered out. When a BOM line has item revision type *MyItemRevisionF* with an occurrence type other than *OccurrenceType* or has no occurrence type, JT datasets associated with the BOM line are not filtered out. |

## Customizing the ICE configuration file

The ICE configuration file included with the installation files serves as a sample and reference.

To customize the configuration file for use with your specific Teamcenter database, identify the dataset and item types contained in your Teamcenter database that you want to be available for use with ICE, and then modify the configuration file to include those types. Remove any types from the configuration file that do not exist in the database or that you do not want to be available for use with ICE.

## Dataset Types

In Teamcenter applications and in ICE, various types of datasets can be associated with a BOM Line in a bill of materials structure. The example configuration file shipped with ICE includes specifications for the following dataset types:

- ACADDWG
- MSExcel
- Text

- DirectModel
- MSPowerPoint
- PDF

- HTML
- MSWord

```
<Dataset type="ACADDWG" defaultRelationType="IMAN_specification">
    <FileTypes>
        <FileType description="DWG" extension="dwg" transferType="Binary"/>
    </FileTypes>
    <Relations>
        <Relation type="IMAN_reference" onlyUseOnce="False"/>
        <Relation type="IMAN_specification" onlyUseOnce="True"/>
    </Relations>
</Dataset>
```

ACADDWG specification as contained
in the example ICE configuration file

The specification shown above defines the ACADDWG dataset type in these ways:

- The default ACADDWG dataset attachment to BOMLine relationship is "IMAN_specification".

- The file type for an ACADDWG dataset has a "DWG" filename extension and must be transferred as binary.

- An ACADDWG dataset can be attached to a BOM line with one of two relationships:

  o  IMAN_reference

     In ICE, drawing datasets attached with this relationship type are listed in the ICE palette attachment pane for a BOM line. The datasets attached with an IMAN_reference relationship can be opened in a separate AutoCAD window, but are not displayed within the ICE project drawing.

     onlyUseOnce="False" means multiple ACADDWG datasets can be attached to a BOM line with this relation type.

  o  IMAN_specification

     In ICE, a drawing dataset attached with this relationship type can be displayed within the ICE project drawing.

     onlyUseOnce="True" means only one ACADDWG dataset can be attached to a BOM line with this relation type.

     To eliminate the potential for conflict in determining which dataset to display in the ICE drawing, the IMAN_specification relation must have its onlyUseOnce attribute set to "True".

## Types

In Teamcenter applications and in ICE, a BOM line has an item Type attribute. Depending on the assigned Type attribute, a BOM line can further have an Occurrence attribute. The example configuration file shipped with ICE includes specifications for the following item types:

- Item
- MEStation
- MEWorkarea

- MELine
- MEDepartment

- MEPlant
- MESite

> **Note**
>
> ICE includes icons for the item types Item, MEWorkArea, and MEStation. In the ICE BOM pane, the Item icon is used for all item types other than MEWorkArea and MEStation.

```
<Item type="Item">
    <Occurrences>
      <Occurrence type="MEResource"/>
      <Occurrence type="METool"/>
    </Occurrences>
</Item>
<Item type="MEDepartment">
    <Occurrences/>
</Item>
```

"Item" and "MEDepartment" type specifications as
contained in the example ICE configuration file

The specification shown above defines the ITEM and MEDepartment item types and further defines their available occurrence types in these ways:

- For the item type ITEM, you can optionally assign either an MEResource or METool occurrence type.

- For the item type MEDepartment, no occurrence types are available for assignment.

# TransToJT configuration file

```
▼<Configuration>
  ▼<TransToJT>
    <Setting name="Advanced Compression Level [min 0.0, max 1.0, negative (off)]" value="0.25"/>
    <Setting name="Alternate Base Point X" value="0.0"/>
    <Setting name="Alternate Base Point Y" value="0.0"/>
    <Setting name="Display Translation Messages [True/False]" value="False"/>
    <Setting name="High LOD Level [min 0.0, max 1.0]" value="1.0"/>
    <Setting name="Level of Detail [Low/High/All]" value="High"/>
    <Setting name="Low LOD Level [min 0.0, max 1.0]" value="0.08"/>
    <Setting name="Middle LOD Level [min 0.0, max 1.0]" value="0.25"/>
    <Setting name="Process 3D Only [True/False]" value="False"/>
    <Setting name="Process Dimensions [True/False]" value="True"/>
    <Setting name="Process Empty Blocks [True/False]" value="True"/>
    <Setting name="Process Object Text [True/False]" value="True"/>
    <Setting name="Process Points [True/False]" value="True"/>
    <Setting name="Process Proxies [True/False]" value="True"/>
    <Setting name="Process SDX Objects Only [True/False]" value="False"/>
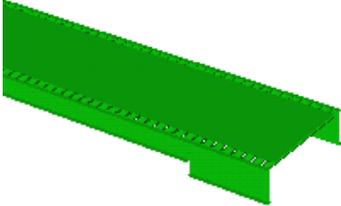    <Setting name="Process Text [True/False]" value="True"/>
    <Setting name="Run Boundary When Attaching Xref [True/False]" value="True"/>
    <Setting name="Simplify Geometry [True/False]" value="False"/>
    <Setting name="Use Alternate Base Point [True/False]" value="False"/>
    <Setting name="Use Auto Normals [True/False]" value="True"/>
    <Setting name="Use Primitives [True/False]" value="True"/>
    <Setting name="Use SDX Names [True/False]" value="True"/>
    <Setting name="Use Tristrip Optimization [True/False]" value="True"/>
    <Setting name="Process Invisible Objects [True/False]" value="True"/>
    <Setting name="JT Creation Units [Inches/Millimeters/Undefined]" value="Undefined"/>
    <Setting name="Out Of Range Objects Show Popup Message [True/False]" value="False"/>
    <Setting name="Out Of Range Objects Log File Path" value="C:\FactoryOutOfRangeObject.log"/>
    <Setting name="Deviation [min 0.01, max 1.0]" value="1.0"/>
    <Setting name="Jt Version [9.0/9.5/10.1]" value="9.0"/>
  </TransToJT>
</Configuration>
```

The following settings affect the AutoCAD to JT translator when it generates Direct Model (JT) files.  All of the settings are optional.

| Setting | Description | Internal Default |
|---|---|---|
| Advanced compression Level [min 0.0, max 1.0, negative (off)] | For compatibility with older versions of visualization software (before Teamcenter Visualization Mockup 5.0) the value should be 1.0 or negative. | 0.0 |
| Alternate Base Point X | Location value for "Use Alternate Base Point" parameter. | 0.0 |
| Alternate Base Point Y | Location value for "Use Alternate Base Point" parameter. | 0.0 |
| Display Translation Messages [True/False] | During translation, display a print message at command line for each entity translated. | False |

| Setting | Description | Internal Default |
|---------|-------------|------------------|
| High LOD Level [min 0.0, max 1.0] | Portion of the model to include in the translated file at the High level of detail. | 0.0 |
| Level of Detail [Low/High/All] | Level of detail (LOD) versions to include in the translated file.<br><br>**Low** – Export only the version with the lowest LOD<br>**High** – Export only the version with the highest LOD<br>**All** – Export all versions<br><br>Many Smart Factory Objects include specifications of what geometry to include at several levels of detail. A version with a low LOD might omit some geometry in order to draw quickly and use few resources. A version with a high LOD might present a more complete or accurate representation of the object, but might also take longer to draw and use more computing resources.<br><br><br><br>Low LOD       High LOD<br><br>Having multiple LOD versions can improve the performance of 3D viewing within Teamcenter lifecycle visualization software. Object versions with a low LOD are displayed when an object is far away in the scene and details of the model are not easily visible. Object versions with a high LOD are displayed when the object is close to the viewer and more details are easily seen.<br><br>**Tip**<br><br>You can simplify exported JT files of High LOD package conveyors by turning off, in FactoryCAD, translation of package conveyor rollers. | All |
| Low LOD Level [min 0.0, max 1.0] | Portion of the model to include in the translated file at the Low level of detail. | 0.0 |
| Middle LOD Level [min 0.0, max 1.0] | Portion of the model to include in the translated file at the Middle level of detail. | 0.0 |
| Process 3D Only [True/False] | Filter out all 2D entities, such as 2D lines, circles, and arcs. | False |

| Setting | Description | Internal Default |
|---------|-------------|------------------|
| Process Dimensions [True/False] | Include dimension objects in the JT file. | False |
| Process Empty Blocks [True/False] | Include empty blocks in the JT file. | True |
| Process Invisible Objects [True/False] | Translate objects even when their visibility property is set to off.<br><br>**Note**<br><br>This setting is independent of the ICE configuration setting "Set Invisible Objects Visible before Publish". | True |
| Process Object Text [True/False] | Include text elements of objects. Visible text elements are translated as geometry. Invisible text elements are translated as properties. | False |
| Process Points [True/False] | Include points in the JT file. | False |
| Process Proxies [True/False] | Include proxy graphics in the JT file. | False |
| Process SDX Objects Only [True/False] | Export only objects that have SDX data attached to them. | False |
| Process Text [True/False] | Include AutoCAD MTEXT or DTEXT objects in the JT file. | False |
| Run Boundary When Attaching Xref [True/False] | When using AutoCAD Manager, automatically execute the Boundary command when you attach an XREF. | False |
| Simplify Geometry [True/False] | Create multiple LODs of AutoCAD geometry and of FactoryCAD objects that do not have multiple LODs internally defined.<br><br>**Note**<br><br>This setting does not affect creation of JT files for FactoryCAD objects that do have multiple LODs defined.<br><br>In most cases, even though initial creation of the JT file takes longer when Simplify Geometry is selected, it should be selected in order to improve performance when viewing the output JT file. | False |

| Setting | Description | Internal Default |
|---|---|---|
| Use Alternate Base Point [True/False] | Use specified X,Y base point coordinates as the point from which to calculate geometry locations for the output JT file. <br><br> **Note** <br><br> While numeric values in AutoCAD can be stored with up to 15 significant digits, numeric values in Teamcenter visualization tools are stored with a maximum of 7 significant digits. Usually, this limitation does not present a problem. However, if for some reason the AutoCAD geometry is clustered at a large distance (more than 7 significant digits) from 0,0, as might be the case if a model is drawn relative to a far distant base point, you can use an alternate base point relatively close to the AutoCAD geometry so that the geometry can be successfully translated and viewed. | False |
| Use Auto Normals [True/False] | If you are getting black geometry in the JT file, flipping this setting may fix the color of the geometry. | False |
| Use Primitives [True/False] | Where possible, translate primitives from the drawing to corresponding primitives in the JT file, rather than tessellating the object shapes. <br><br> **Note** <br><br> Using primitives reduces the size of the JT file and increases the rendering speed for the object in Teamcenter visualization tools. | False |
| Use SDX Names [True/False] | Use SDX names when naming an object in the JT file. <br><br> **Value / Result** <br> True — CIMF_OBJ / FLOORCONV_10_FLOORCONV_SIM <br> False — CIMF_OBJ / CIMF2STRANDROLLERFLIGHTMETRIC | False |
| Use Tristrip Optimization [True/False] | Reduce the number of triangles in the tristrips in each JT part file without reducing the quality of the geometry displayed, thereby increasing visualization performance but at the expense of translation time. | False |

| Setting | Description | Internal Default |
|---|---|---|
| JT Creation Units [Inches/ Millimeters/ Undefined] | Units value in the exported JT file.<br><br>**Note**<br><br>The configuration file setting has highest priority in sequence of settings checked when determining units value for exported JT models. See *JT export units*. | Undefined |
| Out Of Range Objects Show Popup Message [True/False] | Shows a message for each out of range object, such as an infinite line. Out of range objects are not translated.<br><br>The translator creates a log of out of range objects and saves the log as specified in **Out Of Range Objects Log File Path**. | True |
| Out Of Range Objects Log File Path | Location of **FactoryOutOfRangeObject.log** log file for listing objects that were out of range. | **C:\temp\** |
| Deviation [min 0.01, max 1.0] | Allowed amount of deviation from mathematically true curve when tessellating.<br><br>Affects how smooth the displayed curve will be. Smaller deviation values can cause longer JT creation times if the model is complex and can also increase JT file size as more faces are drawn. | 1.0 |
| Jt Version [9.0/9.5/10.1] | Default JT (Direct Model) file format version when exporting drawings to JT. | 9.0 |

## JT export units

The translator sets the units in the exported JT file according to the following priority order:

| At this Priority level | The export units are set this way |
|---|---|
| 1 | Units are set by the translator configuration file setting **JT Creation Units**.<br><br>(The default configuration file name is **TransToJtConfig.xml**; another file name may have been specified during installation, and the configuration parameters may have been consolidated with ICE or Factory configuration parameters in a single file.)<br><br>`<Setting name="JT Creation Units [Inches/Millimeters/Undefined]" value="Undefined" />`<br><br>This setting should match the units of your drawing, or should be set to **Undefined** to use one of the values below. |

| At this Priority level | The export units are set this way |
|---|---|
| 2 | If the **JT Creation Units** value does not exist in the configuration file or is set to **Undefined**, units are set by the Factory Drawing Units value.<br><br>• For export from FactoryCAD, the Factory Drawing Units are always taken from the current drawing.<br><br>• For export from In Context Editor (ICE), the units value source depends on the load status of the drawing (dwg) containing the objects to be translated.<br><br> o For dwg files that have not been loaded (made visible) in the main drawing, the Factory Drawing Units are taken from the original drawing.<br><br> o For dwg files that have been loaded (made visible), the Factory Drawing Units are taken from the main drawing. |
| 3 | If the Factory Drawing Units are not defined, units are set by the AutoCAD variable INSUNITS (insertion units) value.<br><br>This situation exists only for ICE users who do not have FactoryCAD installed on their machine. |
| 4 | If the current AutoCAD variable INSUNITS value is set to Unitless, then units are set to Inches. |

# TcApi configuration file

The following settings are related to transfer of PLM XML data between Teamcenter and ICE.

```xml
<Configuration>
  <TcApi>
    <ResourceOccurrences>
      <ResourceOccurrence type="MEResource"/>
    </ResourceOccurrences>
    <Setting name="Teamcenter Version [10.1/11.2]" value="10.1"/>
    <?You
      must supply the host name and port number for your Teamcenter server in the following line.
    ?>
    <?Setting
      name="Web Service URL" value="http://hostname:portnumber/tc"/
    ?>
    <Setting name="Teamcenter Application" value="Teamcenter"/>
    <Setting name="Export Transfer Mode" value="ICE_Export_11_1"/>
    <Setting name="Import Transfer Mode" value="ICE_Import_11_1"/>
    <Setting name="Update Classifications on Modifications [True/False]" value="False"/>
    <Setting name="Using SSO [True/False]" value="False"/>
    <Setting name="SSO login URL" value=""/>
    <Setting name="SSO Application ID" value=""/>
    <HideErrorCodes>
      <HideErrorCode min="0" max="0"/>
    </HideErrorCodes>
    <HideErrorNumbers>
      <HideErrorNumber min="1000" max="1000"/>
    </HideErrorNumbers>
    <Setting name="Minimum Error Level" value="3"/>
  </TcApi>
</Configuration>
```

| Section/ Setting | Description | Required? | Default |
|---|---|---|---|
| Resource Occurrences | Occurrence types that should be treated as resources. These types are used to display the resource icons in the ICE BOM pane. | Optional | None |
| Teamcenter Version [10.1/11.2] | The Teamcenter version used with ICE. | Optional | 10.1 |
| Web Service URL | URL for the Teamcenter Web Service.<br><br>**Example**<br><br>http://il-s017:7001/tc/ | Required | None |

| Section/ Setting | Description | Required? | Default |
|---|---|---|---|
| Teamcenter Application | The database name specified in Teamcenter.<br><br>**Tip**<br><br>A PLMXML file exported from Teamcenter includes the application database name in the view sections application reference. When working with ICE files from an external source, verify that the **Teamcenter Application** value matches the database from which the PLMXML was created. | Optional | Teamcenter |
| Export Transfer Mode | Required if **Update Classifications on Modifications** is set to True. Name of the export transfer mode for the AI object in Teamcenter used with ICE. | Conditional | None |
| Import Transfer Mode | Name of the import transfer mode for the AI object in Teamcenter used with ICE. | Optional | None |
| Update Classifications on Modifications [True/False] | During a publish operation, pushes to Teamcenter changes made to BOM line classification attribute values via the ICE Attributes dialog box.<br><br>**Note**<br><br>A setting of the same name in the ICE configuration file applies to classification attribute values stored in block attributes. The two locations for classification values are distinct. | Optional | False |
| HideError Codes | In the ICE Status window, suppresses display of the specified range of Teamcenter error code messages generated during processing of plmxml.<br><br>Suppression may be desirable when normal processing generates errors that are irrelevant to operations for the current Teamcenter configuration. | Optional | None |
| HideError Numbers | In the ICE Status window, suppresses display of the specified range of ICE error number messages generated during processing of plmxml.<br><br>Suppression may be desirable when normal processing generates errors that are irrelevant to operations for the current Teamcenter configuration. | Optional | None |

| Section/ Setting | Description | **Required?** | Default |
|---|---|---|---|
| Minimum Error Level | The minimum severity of error message to display in the ICE Status window during processing of plmxml.<br><br>    0    Unset<br>    1    Message<br>    2    Warning<br>    3    Error<br>    4    Severe<br>    5    Fatal<br>    6    Multiple | Optional | 3 |
| Using SSO [True/False] | Use single sign on. Applicable with Teamcenter 8.3 and later TCSS. | Conditional | False |
| SSO login URL | The URL of the SSO login page (should be equal to the TC_SSO_LOGIN_URL environment variable on the server). Used only for login to Teamcenter from AutoCAD. Not required for sending data to ICE from Teamcenter. | Conditional | None |
| SSO Application ID | The application ID associated with the client application (should be equal to the TC_SSO_APP_ID environment variable on the server). Used only for login to Teamcenter from AutoCAD. Not required for sending data to ICE from Teamcenter. | Conditional | None |

Notes:

# Chapter 5: Install the ICE programs

1. Ensure the following have been accomplished:

   • Ensure the current user has permissions to write to the Windows registry.

   • If an older version of the program is currently installed, follow the instructions in *Upgrade an older version*.

   • Install AutoCAD or AutoCAD Architecture.

   • (If ICE is to be used in conjunction with Teamcenter) Install the Teamcenter Rich Client.

   • (If Teamcenter is configured to use the Secure Sockets Layer (SSL) protocol) Ensure that a **TEAMCENTER_SSL_CERT_FILE** system variable exists and points to the certificate file. You may need to obtain a certificate file from the Teamcenter SSL administrator.

   • Prepare the license.

     > **Note**
     >
     > For assistance with license issues, contact GTAC.

   • If you want to use program configuration file values other than default values, prepare the configuration files and make note of their location.

     > **Tip**
     >
     > For convenience, you can combine the contents of the separate configuration files into one xml file. You specify the file containing corresponding settings during program installation.

   | Configuration file location(s) |
   | --- |
   | ICE |
   | TcAPI |
   | TransToJT |

2. Insert the installation disk. If the setup program does not appear within 30 seconds, run **SETUP.EXE** from the root folder of the disk.

3. Follow the on-screen directions.

> **Note**
>
> During installation you specify the following paths:
>
> | | |
> |---|---|
> | Program Files Folder | The location for the main program installation. |
> | | Default value: **C:\Program Files\Siemens PLM Software\ In Context Editor [release]** |
> | Menu Files Folder | The location for the menu files |
> | | Default value: |
> | | **C:\ProgramData\Siemens PLM Software\In Context Editor [release]\Menus** |
> | Configuration Files | The destination for new copies of default configuration files (Local Configuration only), or the location of existing configuration files. |
> | Licensing | Source(s) for acquiring a license when you later run the installed software. |
> | | If you have a licensing environment variable set on the machine, and if you select the **Use UGS common licensing environment variable** check box, the installer shows the current value of the variable and adds the variable to the list of servers and license files. |
> | | If a license is to be acquired from a standalone license file, you can browse to the file location and select it to add its path. |
> | | If a license is to be acquired from a server, server name(s) must include the port number and be in the form : |
> | | **port@servername** |
> | | Port and server name can be found in the license file on the server. |

4.  When the installation wizard completes, exit the setup program.

5.  To complete the installation, load the ICE menu file in AutoCAD.

Notes:

## Prepare a silent install

To simplify installation on multiple machines, you may want to prepare a silent install. A silent install can be prepared in the standard way, such as the following.

1.  (Optional, recommended) Copy the setup files to the local machine.

    > **Caution**
    >
    > Prepare the silent install on a machine with the same configuration as a machine on which it will be applied:
    >
    > *   the same operation system
    >
    > *   the same AutoCAD installation(s)

2.  Open a command line and change directory to the setup file location.

3.  To record the installation, run the setup as follows:

    **Setup.exe /r /f1"<iss file location>"**

    > **Example**
    >
    > **Setup.exe /r /f1"C:\ICE\Setup.iss"**

    Pay special attention to the spaces in the syntax, particularly no space after **f1**.

    > **Caution**
    >
    > While recording the installation, do not go back to previous screens to change settings.
    >
    > If you set some values in a screen X, go to screen X+1, then return to screen X and change values, the final .iss file will contain the original values from the screen X.

4.  (Optional) To record a silent uninstall, on a machine where the software is installed, run the setup as follows:

    **Setup.exe /r /uninst /f1"<iss file location>"**

    > **Example**
    >
    > **Setup.exe /r /uninst /f1"C:\temp\uninstall_ICE.iss"**

**Perform a silent install**

1.  Run the setup as follows:

    **Setup.exe /L<LCID> /s /f1"<iss file location>"**

    The language switch **/L** is optional. If language is not specified, the language value is taken from the operating system. When the language switch is used, replace <LCID> with a language value from the following list.

    | English (United States) | 1033 |
    |---|---|
    | French (France) | 1036 |
    | German | 1031 |
    | Japanese | 1041 |
    | Korean | 1042 |

    > **Example**
    >
    > **Setup.exe /L1036 /s /f1"C:\ICE\Setup.iss"**

**Perform a silent uninstall**

1.  Run the setup as follows:

    **Setup.exe /s /SMS /uninst /f1"<iss file location>"**

    > **Example**
    >
    > **Setup.exe /s /SMS /uninst /f1"C:\temp\uninstall_ICE.iss"**

# Chapter 6: Load ICE customizations in AutoCAD

1. Start AutoCAD or AutoCAD Architecture.

2. Open a new or existing drawing.

3. Enter the command **ICE**.

The command performs the following actions:

a. Sets the following trusted paths in the current profile
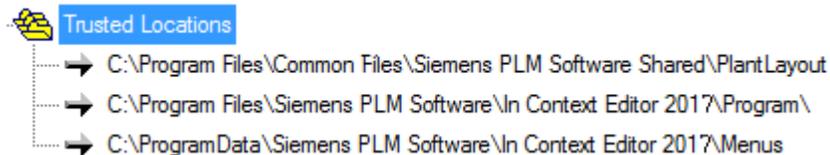


> **Note**
>
> If a new profile is loaded, the trusted paths can manually be added to the profile, or the **ICE** command may need to be run again to set the trusted paths in the new profile.

b. Loads the **CIMFICE.cuix** menu file from **C:\ProgramData\Siemens PLM Software\Factory Programs 2017\Menus**.

> **Note**
>
> Running the **ICE** command again at any time will simply confirm that the trusted paths are set and make sure that the menu file is loaded.

Notes:

# Chapter 7:  Upgrade an older version

1.  In AutoCAD, run the **cuiload** command and unload the CIMFICE menu.

2.  Uninstall the older version.

3.  Delete any old ICE menus (cimfice… .cuix, .cui, .mnu, .mnc, .mnl, .mnr, .mns) from the ICE program\**program** folder.

    > **Note**
    >
    > The default menu location is as follows:
    >
    > **C:\ProgramData\Siemens PLM Software\In Context Editor [release]\Menus**

4.  Install the new version using the instructions in *Install the ICE programs*.

    > **Note**
    >
    > In some cases, uninstalling does not completely clear the Windows registry of all program settings, in which case the new installation encounters errors loading .dll files within AutoCAD.
    >
    > To resolve the issue, after installing the new version, run the executable file **CimfCleanRegistryIce17.exe** found in the program folder (default location **C:\Program Files\Siemens PLM Software\In Context Editor [release number]\Program**).

Notes:

# Chapter 8: Global technical access center (GTAC)

To report any serious problems regarding the software, please contact Global Technical Access Center.

Phone:

- USA and Canada:   800-955-0000  or  714-952-5444

- Outside the United States and Canada:  Contact your local support office.

Website:

You can log incident reports and view any existing resolutions for incident reports on the Web at https://support.industrysoftware.automation.siemens.com/gtac.shtml.

Notes:

# Chapter 9:  Siemens PLM Community

The Siemens PLM Community for FactoryCAD, FactoryFLOW, and In Context Editor are available at http://community.plm.automation.siemens.com/t5/General-Tecnomatix-Forum/bd-p/tecnomatix-forum . The Tecnomatrix Community ( Siemens PLM Community for FactoryCAD, FactoryFLOW, and In Context Editor) is also available through the **Factory Layout Software Help**.

> **Note**
>
> A webkey and password are required to log on to the forum.  Licensed users can get WebKey support at http:/www.siemens.com/plm/support.

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**About Siemens PLM Software**

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