SIEMENS EDA

# Xpedition Enterprise Flow Release Highlights

Software Version: X-ENTPVX.2.12

September 2022

SIEMENS

## About Siemens Digital Industries Software

Siemens Digital Industries Software is a leading global provider of product life cycle management (PLM) software and services with 7 million licensed seats and 71,000 customers worldwide. Headquartered in Plano, Texas, Siemens Digital Industries Software works collaboratively with companies to deliver open solutions that help them turn more ideas into successful products. For more information on Siemens Digital Industries Software products and services, visit www.siemens.com/plm.

Support Center: support.sw.siemens.com
Send Feedback on Documentation: support.sw.siemens.com/doc_feedback_form

# Table of Contents


Introduction ..... 2
New Enhancements and Features ..... 2
Xpedition Enterprise Flow ..... 2
Xpedition AMS ..... 2
Siemens Version Support ..... 3
Graphics Card and Driver Version ..... 3
Licensing ..... 3
Authorization Codes ..... 4
Installation Information ..... 4
vNPI no longer on the X-ENTP media ..... 4
Design Archive (also referred to as xAVE or DAVE) and Dashboard no longer on X-ENTP Media ..... 4
Documentation Delivered in a Separate Install Download ..... 4
Shared Documentation Installation ..... 4
Downloading and Installing Software and Documentation from the Cloud ..... 5
Analysis (HyperLynx Support) ..... 5
Version and Platform support for Xpedition Analysis Control (XAC) ..... 5
Java Support ..... 5
Additional Release Notes and Workarounds ..... 6
Xcelerator Share ..... 7
Browser Support for X-ENTP VX.2.12 ..... 7
Hardware Specifications for testing on Virtual Environments ..... 8
AWS Verification ..... 8
Azure Verification ..... 8
Citrix Verification ..... 9
Xpedition Enterprise Media Export Compliance ..... 10
Support Information ..... 10
Supported Platforms ..... 11
Linux Compatibility Statement ..... 11
Overall Notes ..... 11
Processor Note for Intel/AMD Processors ..... 11
Red Hat Enterprise Linux WS 7 (7.9) – 64 bit ..... 12
Red Hat Enterprise Linux WS 8 (RHEL8.2 - 8.5) – 64 bit ..... 13
SuSE Enterprise 64 Bit Server 12.5 ..... 15
SuSE Enterprise 64 Bit Server and Desktop (15.1-15.2) ..... 15
Microsoft Windows 11 (Version 21H2) ..... 16
Microsoft Windows 10 (Version 1909 through 21H2) ..... 16
Windows Server 2022 ..... 16
Windows Server 2019 ..... 17
Windows Server 2016 ..... 17
Product Excellence Program – Overview and Frequently Asked Questions ..... 18

# Introduction

This document provides a high-level summary of the Xpedition® Enterprise VX.2.12 release. It includes any authorization code changes required, any major installation changes, and any transitioning issues you should be aware of before installing. Additionally, any last-minute issues found in the final stages of testing are included.

This document is located on the top level of the DVD and on Support Center. Changes may be added to this document after the release. Refer to the Release Highlights document on Support Center for the most up-to-date release information.

# New Enhancements and Features

## Xpedition Enterprise Flow

The Xpedition Enterprise Flow has been enhanced with a number of new features that improve product usability and efficiency in the X-ENTP VX.2.12 release. Details of the following changes can be found within the following presentation:

- Xpedition Enterprise Release Content

## Xpedition AMS

Xpedition AMS includes the following new features and updates in release VX.2.12:

- **Setup Schematic Wizard Updates:** You can add custom sources and loads, modeled in either SPICE or VHDL-AMS, to the Add Sources and Add Loads lists. In addition, the wizard content automatically synchronizes source and load details with schematic property information and warns of connectivity changes.
- **SPICE Syntax Checker:** SPICE models are automatically checked for compatibility with Eldo SPICE syntax. The syntax checker makes corrections where needed and saves a backup copy of the original model. You can turn the syntax checker on (the default) and off using the “Check syntax in Spice model files” checkbox in the AMS Settings dialog. (Note: This syntax checker is for standard SPICE models that may contain incomplete or incorrect syntax. If you are starting with a PSpice model, use the Xpedition AMS PSpice Converter to convert the model.)
- **Simulating PCB Parasitics:** Support added for the *.sp filename extension when searching for and importing parasitics files from another project.

- **Bus Netlisting:** In releases prior to VX.2.12, the Xpedition AMS netlister supports the "VB[x:y]" bus naming syntax. For the VX.2.12 release, the netlister adds support for the alternate "VBx, VBy" bus naming.
- **External Simulator Updates:** In addition to the Xpedition AMS simulator, you can run the Questa ADMS and Eldo simulators from the Xpedition AMS environment. The VX.2.12 release supports version 2022.1 of these simulators. (Note: The Questa ADMS and Eldo simulators are installed and licensed separate from Xpedition AMS.)
- **Tutorial Updates:** Tutorial updates include changes to the Power Systems and Magnetics tutorials. This release also includes the new Parasitic Extraction tutorial. All tutorials are available from the Help > AMS Tutorials > Tutorial Index menu selection.
- **Waveform Analyzer Help Information:** Improved links to Waveform Analyzer help information.

# Siemens Version Support

Support is provided for a period of two years from the date of the first general customer release (also known as First Customer Ship or FCS). Support for releases older than two years is not available except at the sole discretion of Siemens.

# Graphics Card and Driver Version

We have tested OpenGL with a variety of hardware, operating system, graphics cards, and drivers and have not experienced any problems for many years.
It should be noted that our products require graphics cards and drivers that support OpenGL version 1.3, 2.0, and 3.0. If any problems are encountered, we encourage you to go to the graphics card vendor website and download the latest version of the driver. If the issue persists, please contact customer support.

# Licensing

The release utilizes the SALT (Siemens Advanced Licensing Technology) MSL software version 1.5 Due to continued use of MSL v2020_1 by the installer and some legacy applications, the user should set both the SALT_LICENSE_SERVER and the MGLS_LICENSE_FILE variable to point to their license server.

# Authorization Codes

To use the latest releases, a minimum license version (Exact Access Date) of 2022.08(August 2022) is required.

You may request your new authorization codes by opening a non-technical Service Request on Support Center.

support.sw.siemens.com/

# Installation Information

### vNPI no longer on the X-ENTP media

As of the VX.2.10 release, the Xpedition Enterprise media does not contain Valor NPI installation. To continue working with Valor NPI and upgrade to the latest stand-alone version, complete the steps in "Migrating from Embedded Install to Stand-Alone Valor NPI" in the Valor NPI Installation Guide.

### Design Archive (also referred to as xAVE or DAVE) and Dashboard no longer on X-ENTP Media

The last release to include this functionality is Xpedition Enterprise VX.2.10 which was released in September of 2021.

Design Archive and Dashboard will receive the normal two-year version support per the Siemens EDA support policy based on the release date of Xpedition Enterprise VX.2.10.

### Documentation Delivered in a Separate Install Download

With this release of Xpedition Enterprise Flow, product documentation is provided as a separate download from the software. This requires two separate downloads and installs of the complete Xpedition Enterprise Flow:

- Download and install product software
- Download and install product documentation.

You are given the option of performing a **Typical Install** of the software and documentation to a single location. This option most closely resembles the install you may be familiar with if you have previously installed Siemen's products. Both software and documentation reside on the same computer.

Refer to the *Installation and Administration Manual for X-ENTP* manual for more information.

### Shared Documentation Installation

As a second installation option, you can **install the software and specify a shared documentation location** from the software install(s). The following are points for consideration with this choice:

- You want to install the documentation to a single location and allow multiple software installs access to that documentation location; documentation does not have to be installed on every computer.
- The documentation tree is self-contained so you can have software installs on different platforms (Windows, UNIX, and Linux) access the documentation from a single location. For example, you have installed the documentation on a UNIX server; software installs on Windows, Linux, and UNIX can access the documentation from this one UNIX server.
- The documentation can be installed to a web server (as the shared documentation location) as long as it is within your company's firewall (think same city, same campus).

Refer the *Installation and Administration Manual for X-ENTP* manual for more information.

# Downloading and Installing Software and Documentation from the Cloud

The Online Installer, which requires only a small download (50-65 MB) from Support Center, enables you to download and install Siemens products from the cloud. This is a much faster method and uses less space on your system because you only download and install the products you want. You can either download and install in one operation or download a local copy for later installation.

# Analysis (HyperLynx Support)

## Version and Platform support for Xpedition Analysis Control (XAC)

The supported versions for the HyperLynx Analysis products for this release are listed below:

- HyperLynx VX.2.12
    - HyperLynx SI/PI/Thermal
    - HyperLynx DRC
    - HyperLynx Advanced Solvers

# Java Support

The version of the Java Runtime Environment that's provided is the OpenJDK 11.0.14.1. The OpenJDK version of Java is free from the licensing restrictions imposed on Oracle Java versions released after Oracle's change in Java licensing terms in January 2018.

This version of Java is the latest available at the time the contents of this release were established. The Java Runtime Environment is included in the product such that it is only used

by Siemens EDA products and such that it does not conflict with any other version of Java installed on the target system. Because this version has been tested for use with the Siemens EDA products, ***replacement of the JRE with any other JRE version is not supported.***

# Additional Release Notes and Workarounds

This section contains additional release notes and workarounds for issues found late in the release process for this software release. For a detailed list of all other release notes and any workarounds for this release, refer to the specific release notes available in the installed software tree or on Support Center.

## Missing ".NET Framework, v4.8" message while invoking 3DLT on Windows Server 2019

When invoking 3DLT (3D > Models > Generate) for a 3D Model Assignment you may receive a message that the .NET Framework, v4.8 is missing. The message also leads you to the Microsoft webpage to install .NET after clicking on "YES". If this error occurs reboot your system to correct the issue. You do not need to reinstall the .NET framework

## Where can I find application program interface documentation for Xpedition Designer?

Please refer to the Automation and Scripting InfoHub, which includes automation documentation for Xpedition Designer, Xpedition Constraint Manager, Xpedition Layout, and other applications. All automation reference titles are provided in PDF and HTML formats.

## What are the recommended Central Library permissions?

To prevent individuals from making changes to a Central Library but still allow Read access for viewing library data, the Central can be write protected as desired to control access. Adjust permissions on the individual library files to enforce your desired security policy.

> **Note**: Windows users can use the Properties/Security dialog box and Linux/UNIX users can use the chmod command to adjust Central Library permissions to corporate guidelines.
>
> Files that can be permission-controlled are:
>
> - Common property (centlib.prp) file
> - Padstack library (padstackDB.psk) file located in the Layout folder
> - Layout template and Panel template files
>
> All other files in the central library should remain “Everyone = Change” (read-write) to ensure proper operation of the library. The Windows share that allows access to the central library directory from remote machines must have permissions set to “Everyone = Full Control”. The share permissions are superseded by the individual file permissions.

## ODBC Connections

64 bit applications are not compatible with 32-bit Microsoft ODBC Drivers. (Access and Excel)

If using a 64-bit version of the Siemens tools then 64-bit ODBC drivers must be installed.
64-bit drivers can be downloaded from the Microsoft web site

If using MS Access or MS Excel as a data source then either:
The 64-bit version of Microsoft Office should be installed to support compatible drivers
If no version of Office is installed on the client then 64-bit drivers should be installed.

### Is client/server setup available for the Windows platform?

Yes. The Server Setup for Client installs is used to install the software to a server-class system where multiple Windows client machines actually run the software across the network. This provides a use model similar to that commonly used in Linux environments, where a single software tree is accessed by multiple users on different workstations.

The System Administrator should install the desired applications onto the server and select the Server Setup for Client Installs > Client/Server Setup option at the same time. The Client/Server Setup option installs a file called ClientInstallSetup.exe onto the server during installation.

To set up the clients, map a network drive to the location on the server where the applications were installed and run ClientInstallSetup.bat in the dialog that displays. Enter the path to the location

## Xcelerator Share

Xpedition Enterprise and PADS Professional flows support integration with the SaaS product called Xcelerator Share. This integration will allow customers to upload PDF files from Designer and JT files from Layout to collaborate across different teams. In order for this functionality to be available, the user will have to have Siemens Connector installed on their system as well as a new license feature. When both of these requirements are met, the user will have a new option in Designer and Layout called “Save to Share” located in the File pulldown. When you execute “Save to Share” command, it will generate the PDF or JT file and upload them into Xcelerator Share for collaboration. For more information on this functionality, please contact your local sales representative or our sales team by phone: 1-800-547-3000 or direct at (503) 685-8000 or by email:eda.sales.sisw@siemens.com

## Browser Support for X-ENTP VX.2.12

- Chrome* 77+,
- MS Edge* 40+
- Firefox* 69+,
- MS Edge Chromium* 80+
- No EDM Server single sign on between Web apps and Desktop Apps due to lack of java plugin support.

# Hardware Specifications for testing on Virtual Environments

| Vendor | VCD | Hypervisor/OS | VDI | Graphics | OS | CPU |
|---|---|---|---|---|---|---|
| VMware | N/A | ESX 6.5.0 | Horizon 7.8.0 | gpu NVidia GridK1 | N/A | 8 x Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz |
| VMware | N/A | ESX 6.5.0 | Horizon 7.8.0 | N/A | N/A | 6 x Intel(R) Xeon(R) CPU E5-2680 v3 @ 2.50GHz no gpu option |
| VMware | 9.1 | ESX 6.5.0 | N/A | N/A | Red Hat Enterprise Linux Workstation release 6.4 | Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz |
| VMware | 10.0 | ESX 6.7 | N/A | N/A | CentOS Linux release 7.4.1708 (Core) | Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz |

# AWS Verification

The following flows and configurations have been verified in the AWS environment for this release. All verification was done only with systems inside of the AWS environment.

- Xpedition Enterprise flow using Windows EDM clients and Windows EDM Server with Design and Library services
- Xpedition Enterprise flow using Windows clients and Windows EDM Server with Library services
- Xpedition IC Packaging flow using Windows clients
- Valor NPI vNPI 11.5
- Valor Parts Library 2205
- PADS Professional using Windows clients

# Azure Verification

The following flows and configurations have been verified in the Azure environment for this release. All verification was done only with systems inside of the Azure environment.

- Xpedition Enterprise flow using Windows EDM clients and Windows EDM Server with Design and Library services
- Xpedition Enterprise flow using Windows clients and Windows EDM Server with Library services
- Xpedition IC Packaging flow using Windows clients
- Valor NPI vNPI 11.5

- Valor Parts Library 2205
- PADS Professional using Windows clients

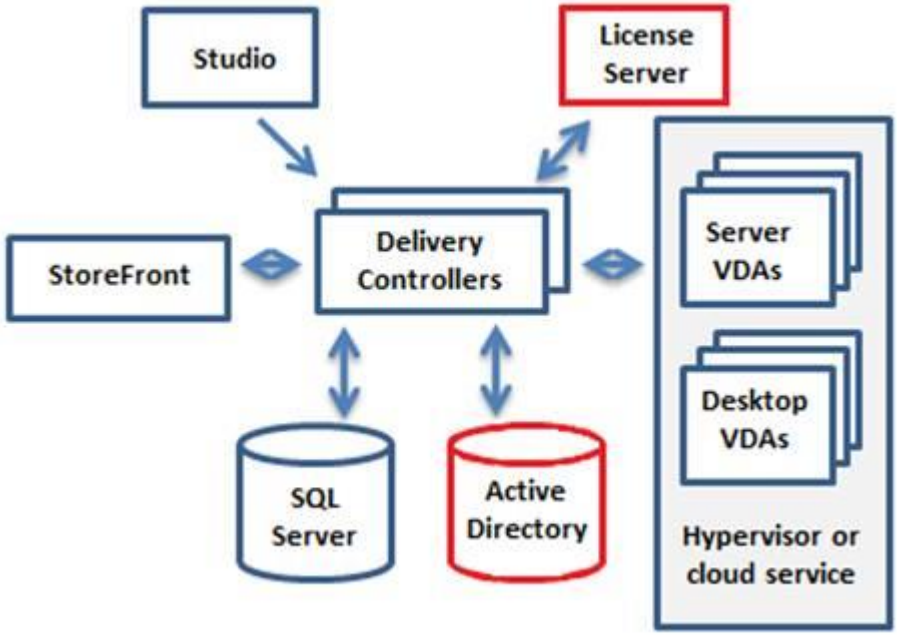
# Citrix Verification

The following flows and configurations have been verified in the Citrix environment for this release. The Citrix environment was verified using an on-premise server. Verification was done with a mixture of systems only inside the Citrix environment as well as systems inside and outside of the Citrix environment.

- Xpedition Enterprise flow using Windows EDM clients and Windows EDM Server with Design and Library services (EDM Server was outside of Citrix)
- Xpedition Enterprise flow using Windows clients and Windows EDM Server with Library services
- Xpedition IC Packaging flow using Windows clients
- Valor NPI vNPI 11.5
- Valor Parts Library 2205
- PADS Professional using Windows clients

**Citrix Configuration used for Verification**

All of the functions in blue (Delivery Controllers, StoreFront,etc.) are part of the Citrix Virtual Apps & Desktops version 7.1912 which run on the Citrix Hypervisor 8.1.0.



# Xpedition Enterprise Media Export Compliance

The Xpedition Enterprise VX.12 release media has an Export Classification Control Number (ECCN) of 3D991.

# Support Information

A support contract with Siemens is a valuable investment in your organization's success. With a support contract, you have 24/7 access to the comprehensive and personalized Support Center portal.

Support Center features an extensive knowledge base to quickly troubleshoot issues by product and version. You can also download the latest releases, access the most up-to-date documentation, and submit a support case through a streamlined process.

support.sw.siemens.com/

If your site is under a current support contract but you do not have a Support Center login, register here:

support.sw.siemens.com/register

# Supported Platforms

## Linux Compatibility Statement

Customers that encounter problems using Siemens Electronic Board Systems tools on an unsupported Linux distribution, and the problem can be duplicated on a supported production Linux distribution, it will be addressed through normal Siemen's support policies. If a problem only exists on the unsupported Linux distribution, the issue lies in a change to the Linux environment, not the Siemens product. In this case, customers should contact their Linux supplier.

## Overall Notes

- Specified patches below are minimum levels. Later versions of the patches are valid, supported configurations, except where specifically noted.
- Except as noted, all products are supported on all platforms.
- Processor and memory requirements assume a single user for the system. Recommended requirements are for general usage with one or two Siemens applications and moderate size data sets. While the product may function minimally with lesser configurations, those configurations are not recommended for typical usage. Users who use many applications simultaneously or who work with high-end designs will benefit from even larger memory configurations. These requirements also do not attempt to quantify the impact of non-Siemens applications, system infrastructure requirements like virus scanners, network monitoring, etc. In general, more memory results in better performance. More detailed information about system requirements is available for service-based products (such as EDM Service products or the RSCM Server) in the respective documentation for those products.
- For server configurations supporting multiple concurrent interactive users (via remote desktop or X Windows technologies), the memory requirements should be scaled by the number of concurrent users.

## Processor Note for Intel/AMD Processors

All Windows and Linux OS variants run on Intel or AMD x86 or x64 processors. In the past, the processor GHz speed determined the performance, but recent changes in the internal architecture of both Intel and AMD processors have made these comparisons difficult. Therefore, the following recommendations are being made for **all** Windows and Linux systems.

- Supported processors and systems are those manufactured since 2008 which conform to the subsequent requirements.
- Intel Celeron processors are not recommended.

- Minimum requirement is a dual-core (or dual processor) system. A quad core is recommended for improved overall system performance. A hyper threaded processor should be considered a single processor, not a dual processor. Serviced-based products which require an EDM Server may have different requirements. Consult the EDM Server documentation for details.

- For best results, maximize processor speed and L1/L2/L3 processor cache memory.

- Typically, cost is the best indicator of performance, and extra investment in processor capability returns better system performance.

## Red Hat Enterprise Linux WS 7 (7.9) – 64 bit

The following RPM packages and all of their dependencies need to be loaded on the RHEL 7 machines: Most of the packages are available on the Red Hat media, but some* require a registered Red Hat Network to obtain.

Kernel version 3.10.0-+

packages required:
==========
gdm
xorg-x11-server-Xorg
motif
libXtst
libX11
libxcb
xcb-util-image
xcb-util-wm
xcb-util-keysyms
xcb-util-renderutil
libXau
mesa-dri-drivers
mesa-libGLU
mesa-libGL
libstdc++
compat-libstdc++-33*
libSM
libXmu
ncurses-libs
nspr
libXft-2
libXinerama
glib2
libpng
libpng12
libtiff
libjpeg-turbo
dos2unix
libXrandr
redhat-lsb
xorg-x11-server-Xvfb*
gtk2

compat-libcap1
libcap
libcanberra-gtk2
PackageKit-gtk3-module
openldap
openssl-libs
openssl11
libxslt
compat-openldap
libaio
elfutils-libelf
numactl
numactl-libs
libXdmcp
dmidecode
compat-libtiff3
tcsh
glibc

## Red Hat Enterprise Linux WS 8 (RHEL8.2 - 8.5) – 64 bit

The following RPM packages and all of their dependencies need to be loaded on the RHEL 8 machines:

Kernel version 4.18.0-*

packages required:
==========
gdm
xorg-x11-server-Xorg
motif.x86_64
libXtst.x86_64
libX11.x86_64
libxcb.x86_64
xcb-util-image.x86_64
xcb-util-wm.x86_64
xcb-util-keysyms.x86_64
xcb-util-renderutil.x86_64
libXau.x86_64
mesa-dri-drivers.x86_64
mesa-libGLU.x86_64
mesa-libGL.x86_64
libstdc++.x86_64
libSM.x86_64
libXmu.x86_64
ncurses-libs.x86_64
nspr.x86_64
libXft.x86_64
libXinerama.x86_64
glib2.x86_64
libpng12.x86_64
libpng15.x86_64
libtiff.x86_64
libjpeg-turbo.x86_64

dos2unix
libXrandr.x86_64
redhat-lsb.x86_64
xorg-x11-server-Xvfb
gtk2.x86_64
libcap.x86_64
libcanberra-gtk2.x86_64
PackageKit-gtk3-module.x86_64
openldap.x86_64
compat-openssl10.x86_64
libxslt.x86_64
libaio.x86_64
elfutils-libelf.x86_64
numactl
numactl-libs.x86_64
libXdmcp.x86_64
dmidecode
libpng.x86_64
tcsh
libnsl.x86_64
libnsl.i686
openssl.x86_64
motif.i686
libXtst.i686
libX11.i686
libxcb.i686
libXau.i686
mesa-dri-drivers.i686
mesa-libGLU.i686
mesa-libGL.i686
libstdc++.i686
libSM.i686
libXmu.i686
ncurses-libs.i686
nspr.i686
libXft.i686
libXinerama.i686
glib2.i686
libpng12.i686
libtiff.i686
libjpeg-turbo.i686
libXrandr.i686
gtk2.i686
libcap.i686
libcanberra-gtk2.i686
PackageKit-gtk3-module.i686
openssl-libs.i686
libxslt.i686
libaio.i686
elfutils-libelf.i686
numactl-libs.i686
libXdmcp.i686
compat-libtiff3.i686
libpng.i686
glibc 32-bit
openldap.i686

## SuSE  Enterprise 64 Bit Server 12.5

## SuSE Enterprise 64 Bit Server and Desktop (15.1-15.2)

**For SuSE 12.5, 15.1 and 15.2 systems** with kernel **4.12.14***

**Packages Required:**

gdm-3
xorg-x11-server
libstdc++6-32bit
libstdc++6
libexpat1-32bit
libexpat1
libXdmcp6-32bit
libXdmcp6
libpng12-0-32bit
libpng12-0
libGLU1-32bit
libGLU1
libXtst6-32bit
libXtst6
libgthread-2_0-0-32bit
libgthread-2_0-0
tcsh

**For SuSE 15.2 systems** with kernel **5.3.18-***

**Packages Required:**

gdm
xorg-x11-server
libstdc++6
libexpat1
libXdmcp6
lsb-release
libpng12-0
libGLU1
libXtst6
libgthread-2_0-0
tcsh

## Microsoft Windows 11 (Version 21H2)

**Kernel Configuration:** N/A

**Processor:** Dual-core Intel or AMD processor minimum. See Processor Note for Intel/AMD Processors above.

**Minimum RAM:** 8GB recommended

**Swap Space:** 2x the amount of RAM

## Microsoft Windows 10 (Version 1909 through 21H2)

Microsoft Windows 10 (64 bit), Enterprise Edition and Pro Edition are supported.

While there is no known issue with running Microsoft Windows 10.0 Home Edition or Educational Edition, the product has not been tested with these editions, and therefore is not supported.

**Kernel Configuration:** N/A

**Processor:** Dual-core Intel or AMD processor minimum. See Processor Note for Intel/AMD Processors above.

**Minimum RAM:** 8GB recommended

**Swap Space:** 2x the amount of RAM

## Windows Server 2022

Additional OS Patches (the following 64-bit configurations are supported):

- Microsoft Windows Server 2022, with all current updates via Windows Update

**Processor Minimum:** Dual-core Intel or AMD processor minimum. See Processor Note for Intel/AMD Processors above.

**Minimum RAM:** 8GB (per simultaneously logged in user)

**Virtual Memory:** 2X the amount of RAM

## Windows Server 2019

Additional OS Patches (the following 64-bit configurations are supported):

- Microsoft Windows Server 2019, with all current updates via Windows Update

**Processor Minimum:** Dual-core Intel or AMD processor minimum. See Processor Note for Intel/AMD Processors above.

**Minimum RAM:** 8GB (per simultaneously logged in user)

**Virtual Memory:** 2X the amount of RAM

## Windows Server 2016

Additional OS Patches (the following 64-bit configurations are supported):

- Microsoft Windows Server 2016, with all current updates via Windows Update

**Processor Minimum:** Dual-core Intel or AMD processor minimum. See Processor Note for Intel/AMD Processors above.

**Minimum RAM:** 8GB (per simultaneously logged in user)

**Virtual Memory:** 2X the amount of RAM

# Product Excellence Program – Overview and Frequently Asked Questions

The Product Excellence Program helps Siemens Digital Industries Software understand how customers use our products and assists us in improving our products. The program is anonymous, and participation is voluntary.

The Product Excellence Program is the same program used by other Siemens Digital Industries Software products and is aligned with global privacy requirements. It is designed to protect the privacy of the user and the intellectual property created through the use of our products.

**How does it work?**

The Product Excellence Program is used to collect data about your installation, the features you use and how you use them. The data is sent to Siemens Digital Industries Software for analysis. By examining usage patterns, we gain insight into how the products are used and how to improve the software in future releases. Anonymous data collection occurs in the background as you use the software and does not affect performance or functionality.

**Examples of data collection**

The following table provides examples of the type of usage data that is collected by Siemens Digital Industries Software and, as equally important, clarifies what data is *not* collected by Siemens Digital Industries Software.

| **What we collect** | **What we do *not* collect** |
|---|---|
| The data collected contains information about how the product is deployed and used, for example:<br>• Client hardware information (OS Name, OS Version, OS Architecture, etc.)<br>• Software version<br>• Client locale<br>• Session time<br>• Command events executed (for example, **Startup**, **Add 3D View**) in the client. | The data collected *does not* contain user information or intellectual property, including:<br>• Contact information or any data that would identify a natural person<br>• Information about data created or managed in the product<br>• IT infrastructure identifiable information such as host names |

**Frequently Asked Questions**

There have been questions regarding how the Product Excellence Program protects the privacy of the user and intellectual property. The following list highlights the answers to some of the most frequently asked questions.

**What kind of customer participation do we currently have from other products that include the Product Excellence Program?**

- Siemens product groups that include data from NX, Capital and Teamcenter are reporting between 80 and 90 percent participation.

**What happens to the collected information?**

- Data is solely for use by Siemens Digital Industries Software to improve our products. We do not share this with any third-party or other groups within Siemens.

**Where is the collected information stored?**

- Data is stored in a secured Siemens AWS environment located in the United States.

**How is the collected information protected against unauthorized access?**

- Siemens has a comprehensive information security program to protect against unauthorized access. Data is only accessible by authorized Siemens employees via multi-factor authentication.

**How is the customer ID obscured so only Siemens can extract customer ID information?**

- Business systems maintains a secured database that includes Customer ID to Customer Name mapping. The Customer name can only be seen when visualizing the reports on our secure Analytics website. The business systems only process company name and not individuals.

**How and where will the User data be anonymized so it cannot be backtracked to a user, a customer, an IP address, etc.?**

- User ID is anonymized on user's machine and cannot be traced back to a particular user.

**How will the geographical location be captured and how will it be obscured so nobody can construe detailed location data?**

- The location is derived from the incoming data. The derived geographical location data is not stored anywhere and is only available temporarily to generate real time reports showing where our users are located.

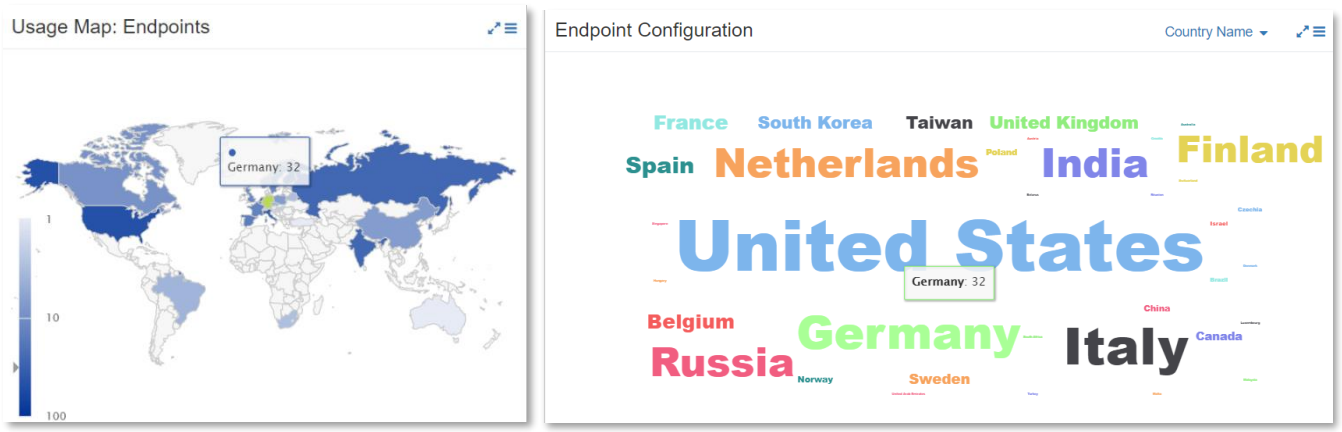



*Figure 1: The geographical location by country over the monitored period of time as captured in the program.*