

ENOVIA VPLM Version 5 Release 20 Modification Level 0

ENOVIA VPLM V5.20 offers the following benefits:

- Improves concurrent engineering processes through a more flexible collaboration mechanism.
- Strengthens configuration and change management with better reporting tools and productivity enhancements.
- Enhances collaboration with the extended enterprise and supply chain through better replication and reconciliation automation, flexibility, and security capabilities.
- Further improves overall applications' usability and ergonomics to enable users to maximize their productivity when using VPLM solutions such as VPM Navigator.
- Improves performance of operations such as where used, as well as search, open, and save of CATIA design data. This promotes overall faster response time and better scalability when using the file introspection capabilities.

Hardware Requirements

Common Hardware Requirements

The support of the following operating systems ended with V5.19:

- IBM AIX® V5.3
- Hewlett-Packard HP-UX

V5.20 is the last release supported on the following operating systems:

- Sun(TM) Solaris
- IBM AIX Workstations

ENOVIA DMU Required Components and Features

- Disk drive: An internal or external disk drive is required (minimum recommended size 2 GB) to store program executables (installation of all ENOVIA DMU products requires about 700 MB on Windows®, 900 MB on AIX, and 800 MB on Solaris), program data, usage environment, and paging space.
- Memory: 256 MB of RAM is the minimum recommended amount of memory for all applications. 512 MB of RAM is recommended for ENOVIA - DMU Navigator applications on large assemblies. Requirements may be greater when a large amount of data is used.

- Internal/external drives: A CD-ROM drive is required for program installation and access to the online documentation, which can be downloaded optionally to disk.
- Graphics display: A graphics color display, compatible with selected platform-specific graphics adapter. The minimum recommended size for usability reasons is 17 inches. The minimum resolution required for Windows workstations is 1024 x 768 and 1280 x 1024 on UNIX® workstations. When selecting a graphics adapter, hardware texturing capability is strongly recommended when using ENOVIA DMU products that use texture mapping, in which case the amount of RAM has to be adequate for the number and complexity of textures to be used.
- Keyboard: A specific keyboard compatible with selected installation locale may be required for national language support.
- Pointing device: Three-button mouse; on Windows workstations, a two-button mouse can be used (the third button is emulated with a keyboard sequence). The three-button mouse is recommended for usability reasons. IntelliMouse (two buttons plus wheel) is an alternative to the three-button mouse on Windows workstations, with the wheel acting as the middle button and allowing additional manipulations such as panning and scrolling.
- Optional components and features: A SpaceBall or a SpaceMouse can be used in addition to the standard mouse to perform graphic manipulations (zoom, pan, rotate). The required drivers are delivered with these devices. DMU Fitting Simulator 2 (FIT) supports the Spaceball. The SpaceBall and the SpaceMouse are supported on both Platform 1 (P1) and Platform 2 (P2). While in P1, they enable graphic manipulations (in examine or fly modes).

In P2, they also make it possible to move objects (part trajectories in ENOVIA DMU fitting, for example).

The robustness of the overall solution is dependent on the robustness of the operating system and the hardware environment used. For a list of Windows NT and UNIX hardware configurations certified by Dassault Systemes for running ENOVIA DMU products, visit

http://www.3ds.com/support

Although ENOVIA DMU products can run on other configurations or other graphics adapters, incidents specific to these configurations or adapters are not accepted for support.

ENOVIA DMU Platform-Specific Hardware Requirements

Windows XP®

 System unit: Intel® Pentium® III-, Pentium 4-, or Xeon®based workstations running Microsoft® Windows XP Professional Edition SP2, Microsoft Windows Vista Enterprise, or Microsoft Windows Vista Business.

• Graphics adapter with 3D OpenGL accelerator is required.

Note: Graphics performance (panning, zooming, rotating model) depends on the selected adapter. Recommended minimum:

- 24-bit, true color, double buffered visual
- o 24-bit Z-buffer
- Stencil buffer
- Minimum supported resolution 1024 x 768; 1280 x 1024 recommended for usability
- Network Adapter: An active LAN adapter (Ethernet or token ring, installed and configured) is required for licensing purposes.

Supported Configurations of Windows XP

For a current list of hardware configurations, certified by Dassault Systemes for running ENOVIA DMU products, visit

http://www.3ds.com/support

Windows x86-64 64-bit Environment

- Disk drive: 2.5 GB.
- Memory: 4 GB is the minimum recommended amount of memory.
- System unit: Intel EM64T, AMD Opteron 64-bit based workstations running Windows XP Professional x64 Edition.
- Graphics adapter: A graphics adapter with a 3D OpenGL accelerator is required.

Note: Graphics performance on local transformations (panning, zooming, and rotating model) will depend on the selected graphics adapter. The graphics adapter should have the following capabilities:

- 24-bit, true color, double buffered visual
- o 24-bit Z-buffer
- Stencil buffer
- Minimum supported resolution 1024 x 768; 1280 x 1024 recommended for usability reasons
- Network Adapter: An active LAN adapter (Ethernet or token ring, installed and configured) is required for license key purposes.
- Supported configurations on Windows XP Professional x64 Edition: For an updated list of hardware configurations, certified at Dassault Systemes for running ENOVIA 3d com V5 products, visit

http://www.3ds.com/support

AIX

- System unit: Any IBM Server or workstation that is POWER processor-based technology that is supported by AIX V6.1
- Graphics adapter -- One of the following graphics adapters:
 - GXT4000P
 - o GXT4500P
 - O GXT6000P
 - GXT6500P

Sun Solaris

- System unit: Any Ultra1, Ultra2, Ultra10, Ultra30, Ultra60, Sun Blade 100, Sun Blade 150, Sun Blade 1000, Sun Blade 1500, Sun Blade 2000, Sun Blade 2500, or Sun Blade 1500+ (1.5 GHz) workstation based on UltraSPARC processor, supported on Solaris 10, provided that requirements are met.
- Graphics Adapter -- One of the following graphics adapters:
 - o Creator3D
 - o Creator3D Series III
 - Elite 3D (U10-440 Mhz only, for U10 workstations)
 - Expert3D Lite
 - o Expert3D
 - o XVR-500
 - o XVR-1000
 - o XVR-1200
 - o XVR 600

ENOVIA 3d com Client Hardware Requirements

Common Requirements

The following requirements are common to all operating systems supported by ENOVIA 3d com. System unit and graphics requirements are platform-specific and include:

- Disk drive: 100 MB of disk space is required for data dynamically downloaded from the ENOVIA 3d com product server.
- Memory: 128 MB of RAM is the minimum recommended amount of real memory; 256 MB of RAM is recommended on ENOVIA 3d com clients.
- Graphics display: A graphics color display, compatible with the selected platform-specific graphics adapter. The minimum recommended size for usability reasons is 17 inches. The minimum resolution required for Windows workstations is 1024 x 768, and 1280 x 1024 on UNIX workstations.
- LAN adapter: A network adapter is required to connect the server and clients to the LAN or WAN.
- Keyboard: A specific keyboard compatible with selected installation locale may be required for national language support.
- Pointing device: Two- or three-button mouse.

Platform-Specific Requirements

Microsoft Windows

- System unit: Intel Pentium III- or Pentium 4-based workstations running Microsoft Windows XP Professional Edition SP1 or SP2, Microsoft Windows Vista Enterprise, or Microsoft Windows Vista Business and Enterprise.
- Graphics adapter: A 3D graphics adapter is required.

Note: Memory consumption is about 50 MB after all ENOVIA 3d com applets, the Java(TM) Virtual Machine, and the browser itself is loaded.

AIX

- System unit: Any IBM system family supported on AIX V6.1 with system units based on POWER4, POWER5, POWER6, or PowerPC® 970 processor technologies.
- Graphics adapter -- One of the following graphics adapters:
 - o GXT4000P
 - o GXT4500P
 - GXT6000P

Sun Solaris

- System unit: Any Ultra1, Ultra2, Ultra10, Ultra30, Ultra60, Ultra80, Sun Blade 100, Sun Blade 150, Sun Blade 1000, Sun Blade 1500, Sun Blade 1500+ (1.5 GHz), Sun Blade 2000, or Sun Blade 2500 workstation based on the UltraSPARC processor, supported on Solaris 10 (SPARC) provided that requirements are met.
- Graphics adapter -- One of the following graphics adapters:
 - Creator3D
 - Creator3D Series III
 - O Elite 3D (U10-440 MHz for Ultra 10 workstations)
 - o Expert 3D Lite
 - Expert 3D
 - o XVR-500
 - o XVR-1000
 - o XVR-1200
 - XVR-600

ENOVIA 3d com Server Hardware Requirements

Common Requirements (classic ENOVIA 3d com)

The following requirements are common to all operating systems supported by ENOVIA 3d com products. System unit and graphic requirements are platform-specific and are detailed in the sections that follow:

- Disk drive: An internal or external disk drive is required to store program executables (installation of all ENOVIA 3d com products requires about 800 MB on Windows or Solaris, 1.1 GB on AIX), program data, usage environment, and paging space. Requirements may be larger when large amounts of data are used.
- Memory: 256 MB of RAM is the minimum recommended amount of memory for all applications. Requirements may be greater when large amounts of data are used.
- Internal/external drives: A CD-ROM drive is required for program and online documentation installation.
- Display: A graphic color display, compatible with the selected platform-specific graphics adapter. The minimum recommended size is 17 inches. The minimum resolution required for Windows workstations is 1024 x 768, and 1280 x 1024 on UNIX workstations.
- LAN adapter: A network adapter is required to connect the server and clients to the LAN or WAN.
- Keyboard: A specific keyboard compatible with selected installation locale may be required for national language support.
- Pointing device: Three-button mouse.

General Rules for Memory Requirements (classic ENOVIA 3d com)

The memory requirement depends on the number of simultaneous ENOVIA 3d com sessions; the users need to dimension the server system accordingly.

The server dimensioning needs to take into account the memory used by the CAD/CAM process on the server.

For CATIA V5 (classic ENOVIA 3d com)

 ENOVIA 3d com consumes 50 MB for the first session plus 10 MB for each additional session for an average 1 MB model The RAM requirement formula is the following: 50 MB + n*10 MB+n*m MB, where n is the number of maximum concurrent sessions and m the average size of the CATIA models.

Note: If several models are selected in one session, only one model remains loaded at the same time, optimizing the memory consumption. As an example, for 10 concurrent users manipulating 10 MB average-size models, the minimum RAM requirement is 256 MB.

 For better response time, a graphics card can be installed on the server and shared in a sequential mode between the simultaneous sessions to improve 3D rendering. Customers must dimension the graphics card accordingly.

Platform-Specific Requirements

Windows XP (classic ENOVIA 3d com)

- System unit: Any Intel Pentium 4, Intel Xeon workstation running Microsoft Windows 2003 Standard Edition or Windows 2003 Enterprise Edition.
- Graphics adapter: The same as for CATIA V5. For a list of supported graphics adapters, visit

http://www.3ds.com/support

UNIX (AIX or Solaris) (classic ENOVIA 3d com)

For system unit and graphics adapter requirements, refer to the **ENOVIA 3d com client hardware requirements** section.

Note: In addition to graphics adapters supported on an AIX ENOVIA 3d com client, Virtual Frame Buffer technology offered through AIX operating system is also supported on an AIX ENOVIA 3d com server.

ENOVIA V5 VPM Client Hardware Requirements

Common Requirements

The following requirements are common to all operating systems supported by ENOVIA V5 VPM. System unit and graphic requirements are specific to the platform.

- Disk drive: 250 MB of disk space.
- Memory: Client workstation RAM: Minimum 256 MB recommended.
- Internal/external drives: CD-ROM drive for program and online documentation installation.
- Display: A graphic color display, compatible with the selected platform-specific graphics adapter. The minimum recommended size is 17 inches. The minimum resolution required for Windows workstations is 1024 x 768, and 1280 x 1024 on UNIX workstations.
- Graphics adapter: An OpenGL graphics adapter, compatible with the windowing manager of the selected operating system (CDE on AIX or Solaris).
- LAN adapter: A network adapter to connect the server and clients to the LAN or WAN.
- **Keyboard:** Keyboard compatible with selected installation locale may be required for national language support.
- Pointing device: Two- or three-button mouse.

Platform-Specific Requirements

Windows XP

System unit: Intel Pentium III- or Pentium 4-based workstations running Microsoft Windows XP SP 1 or SP 2 Professional, Microsoft Windows Vista Enterprise, or Microsoft Windows Vista Business.

AIX

System unit

- Any RS/6000®, based on POWER4 processor family supported on AIX V6.1
- System units based on POWER5 or PowerPC 970 processor families, supported on AIX V6.1

Sun Solaris

System unit: Any Ultra1, Ultra2, Ultra10, Ultra30, Ultra60, Ultra80, Sun Blade 100, Sun Blade 150, Sun Blade 1000, Sun Blade 1500, Sun Blade 1500+ (1.5 GHz), Sun Blade 2000, or Sun Blade 2500 workstation based on the UltraSPARC processor supported on Solaris 10 (SPARC).

ENOVIA V5 VPM Server Hardware Requirements

Common Requirements

The following requirements are common to all operating systems supported by ENOVIA V5 VPM. System unit requirements are specific to the platform.

- Disk drive: Internal or external disk drive to store program executables, program data, usage environment, and paging space. Installation of all ENOVIA V5 VPM products requires approximately 1.0 GB on AIX or Solaris. Requirements may be larger when large amounts of data are used.
- Memory: ENOVIA V5 VPM requires at least 256 MB of real memory for the first session, including the operating system, but could use up to 2 GB (or more in some cases) depending on system settings, database parameters, and other factors.

If ENOVIA V5 VPM server is installed on the same server as the database, be sure to add the database memory requirement to that needed for ENOVIA V5 VPM.

Additional memory is required for each additional application server session, and 75 MB should be used as a typical-use starting point (with a minimum of 25 MB per user session for those only logged-on). More or less additional-session memory may be required, depending on user-specific factors such as the amount of data loaded, the number of different application areas open concurrently, local customizations, and so on. Additional sizing rules will be provided after further capacity planning evaluations.

- Internal/external drives: CD-ROM drive for program and online documentation installation.
- Display: A graphic color display compatible with the selected platform-specific graphics adapter. The minimum recommended size is 17 inches. The minimum resolution required is 1024 x 768 on Windows workstations and 1280 x 1024 on UNIX workstations.
- Graphics adapter: An OpenGL graphics adapter, compatible with the windowing manager of the selected operating system (CDE on AIX).
- LAN adapter: Network adapter to connect the server and clients to the LAN or WAN.
- Keyboard: Keyboard compatible with selected installation locale may be required for national language support.
- Pointing device: Three-button mouse.

Platform-Specific Requirements

Windows 2003

System unit: Intel Pentium III- or Pentium 4-based workstations or server running Microsoft Windows Server 2003® Standard Edition and Windows Server 2003 Enterprise Edition are supported on ENOVIA V5 VPM server side.

AIX

System unit: Any IBM system family supported on AIX V6.1 with system units based on POWER4, POWER5, POWER6 or PowerPC 970 processor technologies.

Sun Solaris

System unit: Any Ultra1, Ultra2, Ultra10, Ultra30, Ultra60, Sun Blade 100, Sun Blade 150, Sun Blade 1500, Sun Blade 1500, Sun Blade 2000, or Sun Blade 2500 workstation based on the UltraSPARC processor, supported on Solaris 10 (SPARC).

Note: ENOVIA VPLM application server and Web-client (ENOVIA VPM Lifecycle Navigator) deployment on WebSphere® Application Server are supported on Solaris (WebSphere Application Server V6.0.2 on Solaris 32).

Programming Requirements

Common Software Requirements

Requirements for Interoperability with CATIA Products

- CATIA V5 and ENOVIA VPLM must be at the same release, service pack, and hot fix level for proper interoperability.
- CATIA V5 and ENOVIA VPLM ENOVIAVPM interoperability is supported between various CATIA V5 release and ENOVIA VPLM ENOVIAVPM PTF levels. Refer to the most recent ENOVIA VPLM ENOVIAVPM PTF program directory for the current prerequisite and recommended interoperability PTFs.

Operating System Support Exceptions

There are four MultiCAx products that are only supported on Windows XP:

- MultiCAx SolidWorks Plug-in
- MultiCAx SE Plug-in (Solid Edge)
- MultiCAx AD Plug-in (ACIS DXF3D Inventor)
- MultiCAx UD Plug-in (Unigraphix Direct Interface)

ENOVIA DMU Common Software Requirements

Refer to the *Program Directory* or contact the IBM Support Center for appropriate corrective service to apply to the following software.

ENOVIA DMU Platform-Specific Software Requirements

ENOVIA DMU V5 runs on selected system levels of:

- Microsoft Windows XP
- AIX
- Sun Solaris

Windows XP

Minimum level required: Microsoft Windows XP Professional Edition SP2, or later, with the following components:

 Microsoft Windows XP delivers an implementation of OpenGL libraries. Dassault Systemes will provide recommendations related to driver levels based on tested graphic adapters at

http://www.3ds.com/support

 A localized version of the operating system may be required when the selected installation differs from Latin1.

Additional Windows XP Requirements

 MS06-075: Vulnerability in Windows could allow elevation of privilege. Information is available at

http://www.microsoft.com/technet/security/bulletin/MS06 -075.mspx

 MSI Installer 3.1: Windows Installer 3.1 v2 (3.1.4000.2435) is available at

http://support.microsoft.com/kb/893803

 Windows XP Professional x64 Edition (refer to the following section for description)

ENOVIA DMU V5 64-bit on Windows XP Professional x64 Edition

- Minimum level required: Windows XP Professional x64 Edition.
- Microsoft implementation of OpenGL libraries, as delivered with Windows. For recommendations related to driver levels based on tested graphic adapters, visit

http://www.3ds.com/support

ENOVIA DMU V5 32-bit on Windows XP Professional x64 Edition

- Minimum level required: Windows XP Professional x64 Edition
- Microsoft implementation of OpenGL libraries, as delivered with Windows. For recommendations related to driver levels based on tested graphic adapters, visit

http://www.3ds.com/support

The following set of patches are required when running 32-bit applications on x64 environment:

 KB903648: When using macro and VBScript features, Version 5 may crash when accessing more than 2 GB of address space. A Microsoft patch is available to correct this problem. To see Microsoft Article KB903648, visit

http://support.microsoft.com/default.aspx?scid=kb;enus;903648

 KB911021: Required for applications allowing more than 2 GB of address space. Contact your Microsoft support representative for any questions regarding this patch.

AIX

Base support:

- AIX V6.1 (using 64-bit kernel) with the following components:
 - OpenGL and GL3.2 Runtime Environment, delivered with the operating system
 - Common Desktop Environment (CDE), delivered with the operating system
 - XL C/C++ Enterprise Edition V7.0.0 Run-time Environment: XL 7 May 2005 PTF R/T (xlC.aix50.rte at level 7.0.0.6), delivered through APAR IY71976
 - XL Fortran Enterprise Edition V9.1.0 for AIX Run-Time: November 2004 XL Fortran for AIX V9.1 Runtime PTF

Base support is available at

http://www.ibm.com/software/awdtools/fortran

Additional support

AIX V6.1 (using 64-bit kernel) with the following components:

- OpenGL and GL3.2 Runtime Environment (delivered with the operating system)
- Common Desktop Environment (CDE), delivered with the operating system
- XL C/C++ Enterprise Edition V8.0.0 Run-time Environment: January 2006 IBM C++ Runtime Environment Component for AIX. available at

http://www.ibm.com/software/awdtools/fortran

 XL Fortran Enterprise Edition V10.1.0 for AIX Run-Time: Base level available at

http://www.ibm.com/software/awdtools/fortran

- Support for the use of nodelock license requires:
 - IY80993: Workaround Application Dependency on System-ID
 - Firmware Version AT061_061, or later
- Nodelock licensing requires the following patches:
 - IY82392: 0C9 System Crash with Graphics Adapter.
 - Support of GXT4500P requires the following patch to be applied: IY80526: CATIA V4 Hangs on GXT4500P when rotating a model.

WebSphere Application Server V6.1 and WebSphere Portal Server support or IBM IntelliStation P185 support requires AIX 6.1 with the above recommendations.

Sun Solaris

The minimum indicated level is Sun Solaris 10 H/W 05/03 with the following components:

- C and C++ runtime environment (delivered with the operating system).
- OpenGL runtime environment (delivered with the operating system).
- Fortran runtime environment (delivered with ENOVIA DMU Navigator).
- CDE (delivered with the operating system).
- A localized version -- May be required when the selected installation locale differs from ISO-1.
- Motif 2 1
- 119280-06 CDE 1.6: Runtime library patch for Solaris 10 is required.

Notes:

- Additional support for Solaris Runtime on SPARC system is Solaris 10.03/05 (on 32-bit only).
- Support of the XVR 600 graphic adapter -- Requires OpenGL runtime environment at level 1.3.

Access to Product Information (ENOVIA DMU / ENOVIA 3d com)

Product information and User GALAXY (online product marketing information) are delivered in HTML format. An HTML browser is required to access this documentation. Online documentation may be installed and used only in an officially supported operating environment.

In a UNIX environment (AIX, Solaris):

- Mozilla 1.7 for AIX with Java plug-in installed
- Firefox 2.0 for Sun Solaris SPARC available at

http://www.mozilla.com/en-US/firefox/2.0.0.3/releasenotes

In a Windows environment, either

- Microsoft Internet Explorer at a minimum level of 7.0
- Firefox 2.0 with Java plug-in installed

Although other HTML browsers might provide access to the online documentation, browsers other than those mentioned above are not eligible for support should there be problems with them.

In addition to a Java-enabled Web browser, a Java plug-in at level 1.5 (or 5.0) is required to search online documentation.

Note: Improvements in HTML searching and printing capabilities eliminate the need to duplicate product information in the Portable Document Format (PDF) format. PDF CDs are therefore no longer included in the ENOVIA VPLM softcopy collection kit.

For Microsoft Windows, Java plug-in Version 5 Update 7 may be downloaded from

http://java.sun.com/products/archive/index.html

For AIX, Java Runtime Environment version Java 1.5.0 SR3 can be downloaded from

http://www-

106.ibm.com/developerworks/java/jdk/aix/service.html

For Sun Solaris, Java Runtime Environment Version 5 Update 7 may be downloaded from

http://java.sun.com/products/archive/index.html

ENOVIA DMU Prerequisites for the License Management Environment

- Windows workstations must have an active LAN card (Ethernet or token ring) and TCP/IP installed and properly configured, but there is no requirement for the workstations to be connected to the network.
- No additional software is required when accessing nodelock licenses
- Dassault Systemes License Use Management (LUM) is required to serve concurrent licenses across a network. A LUM configuration file (i4ls.ini) is required on ENOVIA - DMU clients to access concurrent licenses from these servers.
- ENOVIA VPLM add-on product (AOP) and shareable products may require license keys for prerequisite products that are not already included in a standard configuration.
 Prerequisites for shareable products can be satisfied by a standard configuration, by an AOP within a custom configuration, or by a shareable product.

However, because all add-on products are defined within one custom license key, any AOP prerequisites must be satisfied by either a standard configuration or by other AOPs purchased and defined within the same custom configuration.

- There is no limit to the number of ENOVIA DMU processes launched for a given license key (configuration or product).
 For instance, a user can launch the following simultaneous processes:
 - o A Version 5 interactive session
 - A Version 5 process executed through an OLE container application
 - Replay of macros recorded from captured sequences of Version 5 user interactions
- Dassault Systemes LUM level The minimum release of Dassault Systemes License Use Management (LUM) V4 needed to run your application is LUM V4.6.8 (recommended with Patch 4.6.8.3). This version can be downloaded at no charge from http://www.3ds.com/support/resource-library/ or a request for a physical media can be placed through the Dassault Systemes Support.

ENOVIA DMU Macro Replay Capabilities

ENOVIA DMU products have built-in macro record and replay: For UNIX, the interpreter is VisualBasic (VB) Script 3.0 from Mainsoft. It is included in ENOVIA DMU products as shared libraries.

For Windows, the interpreter is either:

- VB Script 5.0, or later, delivered with Microsoft Internet Explorer. VB Script libraries at level 5.0.0.3715 are delivered with Internet Explorer 5.0, or later, with later versions of Internet Explorer. Use of VB Script is recommended for developing Windows/UNIX compatible macros.
- Microsoft VisualBasic for Applications (VBA) 6.0, or later.
 VBA is delivered and installed by default with ENOVIA DMU.

ENOVIA DMU Printer and Plotter Support in a UNIX Environment

ENOVIA DMU products provide support for main plotter/printer languages:

- CGM-ISO, ATA, CALS
- OCE Graphics GPR50: VDF Plotting routines
- PostScript

ENOVIA DMU Printer and Plotter Support in a Windows Environment

Support of printers and plotters on Windows is performed through the availability, for the targeted printers/plotters, of the corresponding vendors' drivers, compatible with the targeted version of the operating system. Contact the appropriate printer/plotter vendor for support.

ENOVIA DMU Software Installation

- On Windows, installing and uninstalling rely on Windowscompliant tools such as InstallShield, which enables anyone familiar with Windows procedures and concepts to install the software.
- The concepts, procedures, and look and feel of installation procedures for Windows are carried over to the UNIX environment to give a common ENOVIA - DMU products interface for all supported operating systems.
- Installation procedures feature:
 - Easy and fast installation: Any user can install and execute the product with a limited number of interactions.
 - Reduced user environment: When installed, a product requires customization.
 - Customizable installation: The user can select downloaded products.

ENOVIA 3d com Client Software Requirements

Common Client Software Requirements

Java-enabled Web browser on the client machines

Windows

Microsoft Internet Explorer 7.0 or Mozilla 1.7 on Windows with Java plug-in V6.0 update 2 available under the JDK/JRE 6.0 section at

http://java.sun.com/products/archive/index.html

AIX

For Mozilla 1.7, the recommended plug-in on AIX, is Java 1.5.0 SR3, which is available at

http://www-

106.ibm.com/developerworks/java/jdk/aix/service.html

Solaris

Use Mozilla Firefox 2.0 browser, which is available at

http://www.mozilla.com/en-US/firefox/2.0.0.3/releasenotes

On Sun Solaris, AIX, and Windows, for classic ENOVIA 3d com, the Java Runtime Environment at level 1.5 (or 5.0) is required for ENOVIA 3d com Classic. Java Runtime Environment can be downloaded from

Sun Solaris

http://java.sun.com/products/archive/index.html

AIX

http://www-106.ibm.com/developerworks/java/jdk/aix/service.html

Windows

http://java.sun.com/products/archive/index.html

Dynamic conversion to virtual reality modeling language (VRML) does not require any additional software.

- If no plug-in is available to display the converted data, the browser will propose to store the data with the extension .wrl on the client.
- If a VRML plug-in is available, it is automatically invoked for viewing and manipulation.

For interoperability between a CATIA V5 session and a VPM database, using a ENOVIA 3d com DB2® client or Oracle client, refer to the appropriate VPM announcement for specific supported relational database management system (RDBMS) release levels.

Platform-Specific Software Requirements

UNIX

Operating system requirements for clients on UNIX machines are the same as those stated in the **ENOVIA V5 VPM server software** requirements section.

Windows XP

Microsoft Windows XP SP2 with the following components:

 Microsoft Windows XP delivers an implementation of OpenGL libraries. Dassault Systemes will provide recommendations related to driver levels based on certified configurations at

http://www.3ds.com/support

These drivers may offer a CATIA V5 application setting. If available, the user should select this setting (from Display Properties screen on Microsoft Windows XP Control Panel) so that any application-specific features can be used. The user can update these libraries depending on the graphics adapter selected when he installed the adapter and associated drivers.

 A localized version of the operating system may be required when the selected installation locale differs from Latin1.

Additional Windows XP Requirements

 MS06-075: Vulnerability in Windows could allow elevation of privilege. Information is available at

http://www.microsoft.com/technet/security/bulletin/MS06 -075.mspx MSI Installer 3.1 : Windows Installer 3.1 v2 (3.1.4000.2435) available at

http://support.microsoft.com/kb/893803

 Windows XP Professional x64 Edition (refer to the following section for description)

Windows XP Professional x64 Edition for V5 32-bit

- Minimum level required: Windows XP Professional x64 Edition
- Microsoft implementation of OpenGL libraries, as delivered with Windows. For recommendations related to driver levels based on tested graphic adapters, visit

http://www.3ds.com/support

The following set of patches are required when running 32-bit applications on x64 environment:

 KB903648: When using macro and VBScript features, Version 5 may crash when accessing more than 2 GB of address space. A Microsoft patch is available to correct this problem. To see Microsoft Article KB903648, visit

http://support.microsoft.com/default.aspx?scid=kb;enus;903648

 KB911021: Required for applications allowing more than 2 GB of address space. Contact your Microsoft support representative.

ENOVIA 3d com Server Software Requirements

Information in this section describes requirements specific to each supported operating system on ENOVIA 3d com servers.

Windows 2003

Windows Server 2003 Standard Edition or Windows Server 2003 Enterprise Edition is required with Service Pack 1.

- Microsoft Windows 2003 delivers an implementation of OpenGL libraries. These libraries may be updated depending on the selected graphics adapter when the user installs the graphics adapter and associated drivers.
- DirectX at minimum level 8.1 is required for correct operation of ENOVIA 3d com Server in a multi-user environment. It is available from

http://www.microsoft.com/downloads/

 A localized version of the operating system may be required when the selected installation locale differs from Latin1.

AIX

Base support:

AIX V6.1 (using 64-bit kernel) with the following components:

- OpenGL and GL3.2 Runtime Environment (delivered with the operating system)
- Common Desktop Environment (CDE), delivered with the operating system
- XL C/C++ Enterprise Edition V7.0.0 Run-time Environment: XL 7 May 2005 PTF R/T (xlC.aix50.rte at level 7.0.0.6), delivered through APAR IY71976
- XL Fortran Enterprise Edition V9.1.0 for AIX Run-Time: November 2004 XL Fortran for AIX V9.1 Runtime PTF, available at

http://www.ibm.com/software/awdtools/fortran

Additional support includes:

AIX V6.1 (using 64-bit kernel) with the following components:

- OpenGL and GL3.2 Runtime Environment (delivered with the operating system)
- CDE, delivered with the operating system
- XL C/C++ Enterprise Edition V8.0.0 Run-time Environment: January 2006 IBM C++ Runtime Environment Component for AIX, available at

http://www.ibm.com/software/awdtools/fortran

 XL Fortran Enterprise Edition V10.1.0 for AIX Run-Time: Base level available at

http://www.ibm.com/software/awdtools/fortran

- Support for the use of nodelock license requires:
 - IY80993: Workaround Application Dependency on System-ID
 - Firmware Version: AT061_061, or later
- Nodelock licensing requires the following patches:
 - IY82392: 0C9 System Crash with Graphics Adapter.
 - Support of GXT4500P requires the following patch to be applied: IY80526: CATIA V4 Hangs on GXT4500P when rotating a model.

WebSphere Application Server V6.1 and WebSphere Portal Server support or IBM IntelliStation P185 support requires AIX 6.1 with respect to previously described recommendations.

Sun Solaris

Sun Solaris 10 SPARC HW 03/05, including:

- C and C++ runtime environment (delivered with the operating system).
- OpenGL 1.3 runtime environment (delivered with the operating system).
- Fortran runtime environment (delivered with the operating system).
- A localized version of the operating system may be required when the selected installation locale differs from ISO-1.
- 119280-06 CDE 1.6: Runtime library patch for Solaris 10 is required.
- WebSphere Application Server V6.1 is currently supported.

Notes

- WebSphere Application Server 6.0.2 is currently supported on Solaris 32.
- Current support for Solaris Runtime on SPARC system is Solaris 10.03/05 (on 32-bit only).

Additional ENOVIA 3d com Server Software Requirements

The following components are required or optional on ENOVIA 3d comservers for all supported operating systems:

HTTP Server

- ENOVIA 3d com Classic requires an HTTP server (not delivered with the ENOVIA 3d com products) on the server machine. The user will need to configure it after the ENOVIA 3d com installation.
- ENOVIA 3d com Classic supports the following HTTP servers:
 - Apache Server
 - o IBM HTTP Server
 - Microsoft Internet Information Services
 - Incidents specific to other servers will not be eligible for support.

ORBIX

ORBIX (supplied with ENOVIA 3d com Navigator) enables Internet interoperability object protocol (IIOP) based, CORBA-compliant communications on the server side.

Java Virtual Machine (classic and modular 3d com)

- A Java Runtime Environment is required for the Workbook server at the following level:
 - Windows: Sun, Java Runtime Environment Version 5 Update 7 may be downloaded from

http://java.sun.com/products/archive/index.html

AIX: Java Runtime Environment version Java
 1.5.0 SR3 can be downloaded from

http://www-

106.ibm.com/developerworks/java/jdk/aix/service.html

Sun Solaris: Java Runtime Environment Version 5
 Update 7 may be downloaded from

http://java.sun.com/products/archive/index.html

Workbook can be managed through a WebSphere Application Server.

WebSphere Portal (ENOVIA 3d com Web Navigator and ENOVIA - VPM Lifecycle Navigator)

On AIX and Windows, WebSphere Portal Server V5.1.0.2 on WebSphere Application Server V6.0.2 can be used with the new File Explorer and the ENOVIA 3d com Web Navigator and ENOVIA - VPM Lifecycle Navigator portlets. For more information about WebSphere Portal, visit

http://www.ibm.com/websphere/portal

To use the Sametime collaboration capabilities, Lotus Instant Messaging and Web Conferencing V7.5.1 is required.

ENOVIA 3d com Prerequisites for the License Management Environment

 "Nodelock" license keys are not allowed with ENOVIA 3d com. LUM is required to serve concurrent license keys across a network. A LUM configuration file (i4ls.ini) is required on clients to access concurrent license keys from these servers.

Note: Concurrent offline licensing is not supported.

 Dassault Systemes LUM level – The minimum release of Dassault Systemes License Use Management (LUM) V4 needed to run your application is LUM V4.6.8 (recommended with Patch 4.6.8.3). This version can be downloaded at no charge from http://www.3ds.com/support/resource-library/ or a request for a physical media can be placed through the Dassault Systemes Support.

Optional ENOVIA 3d com Server Requirements

For CATIA V5

- CATIA V5 server code is included on the ENOVIA 3d com CD-ROM and installed by default. To use ENOVIA 3d com in conjunction with CATIA V5, the user must install ENOVIA 3d com with the ENOVIA 3d com Navigator or with ENOVIA 3d com CAD Viewing configuration.
- The ENOVIA 3d com Navigator and CAD Viewing configurations include a Version 5 server that supports reading and visualizing of CATIA 3D data created at any level up to and including CATIA V5.12 and CATIA V4.2.4.1.

Notes

- MultiCAx plug-ins (ProEngineer(R), Unigraphics(R), and Ideas(R)) must be installed on the server side when multi-CAD support is required.
- ENOVIAVPM (for installation using ENOVIA MultiPDM CDM/VPM Plug-in) requires ENOVIAVPM V1.6.

Requirements for Using Instant Collaboration Capabilities with ENOVIA 3d com

- Sametime Server: 7.5.1
- Server operating system: Refer to Sametime release Note
- Client operating system: Windows, AIX V6.1, Solaris 10

Using ENOVIAVPM V1.6 with ENOVIA VPLM V5.20 or CATIA V5.20 Products

ENOVIAVPM V1.6 customers who plan to interoperate with the V5.20 family of ENOVIA VPLM or CATIA products must install an ENOVIAVPM program temporary fix (PTF) to obtain the required interoperability level. (V5.20 service pack may also be required.)

The required PTF could vary, depending on whether the base level of the V5.20 product is being used, or a subsequent service pack level. Check the V5.20 documentation for interoperability information, or contact Dassault Systemes Support.

ENOVIA V5 VPM Enterprise Process Definition (E-PD) Support

This product is supported on Windows XP only.

ENOVIA V5 VPM Client Software Requirements

Common Client Software Requirements

For ENOVIA VPM Product Editor and ENOVIA V5 VPM: Java Runtime environment, V1.5 is required (Refer to the respective *Program Directories* for further details.)

For Web-client ENOVIA V5 VPM (ENOVIA - VPM Navigator): The following Java-enabled Web-browsers on the client machines are supported:

- Windows
 - Microsoft Internet Explorer 7.0, or later, on Windows with Java plug-in 1.5.0_07 available at

http://java.sun.com/products/archive/index.html

O Mozilla 1.7 with Java plug-in 1.5.0_07 available at

http://java.sun.com/products/archive/index.html

AIX

Java Runtime Environment Version Java 1.5.0 SR3 can be downloaded from

http://www-

106.ibm.com/developerworks/java/jdk/aix/service.html

Sun Solaris

Use Mozilla Firefox 2.0 browser, which is available at

http://www.mozilla.com/en-US/firefox/2.0.0.3/releasenotes

Use Mozilla Firefox 2.0 browser with Java Runtime Environment Version 5 Update 7, which may be downloaded from

http://java.sun.com/products/archive/index.html

Platform-Specific Client Software Requirements

UNIX

Operating system requirements for clients on UNIX machines are the same as those stated in the **ENOVIA V5 VPM server software requirements** section.

Windows XP

Microsoft Windows XP Professional SP2 with the following components:

 Microsoft Windows XP delivers an implementation of OpenGL libraries. Dassault Systemes will offer recommendations related to driver levels based on certified configurations at

http://www.3ds.com/support

These drivers may offer a CATIA Version 5 application setting (see Control Panel, Display Properties), which should be selected when available, as they may contain application-specific features. The user can update these libraries

depending on the graphics adapter selected when he installed the adapter and associated drivers.

 A localized version of the operating system may be required when the selected installation locale differs from Latin1.

Additional Windows XP Requirements

 MS06-075: Vulnerability in Windows could allow elevation of privilege. Information is available at

http://www.microsoft.com/technet/security/bulletin/MS06-075.mspx

 MSI Installer 3.1 : Windows Installer 3.1 v2 (3.1.4000.2435) available at

http://support.microsoft.com/kb/893803

 Windows XP Professional x64 Edition (refer to the following section for description)

Windows XP Professional x64 Edition for V5 32-bit

- Minimum level required: Windows XP Professional x64 Edition.
- Microsoft implementation of OpenGL libraries, as delivered with Windows. For recommendations related to driver levels based on tested graphic adapters, visit http://www.3ds.com/support

These drivers may offer a CATIA V5 application setting (see Control Panel, Display Properties tabs), which should be selected when available, as they may contain application-specific features.

- Although the V5 products are 32-bit applications, they can allocate up to 4GB of Memory when running on this operating system.
- The following set of patches are required when running 32bit applications on x64 environment:
 - KB903648: When using macro and VB Script features, V5 may crash when accessing more than 2 GB of address space. A Microsoft patch is available to correct this problem. To see Microsoft Article KB903648, visit

http://support.microsoft.com/default.aspx?scid=kb;en-us:903648

 KB911021: Required for applications allowing more than 2 GB of address space. Contact your Microsoft support representative.

ENOVIA V5 VPM Server Software Requirements

Common Server Software Requirements

Java Runtime Environment V1.5.0 (5.0) is required.

Sun Solaris

http://java.sun.com/products/archive/index.html

AIX

http://www-106.ibm.com/developerworks/java/jdk/aix/service.html

Windows

http://java.sun.com/products/archive/index.html

Database Management System (DBMS) Requirements

ENOVIA VPLM data persistency is independent of a specific implementation. It supports:

ENOVIA V5 VPM requirement on DB2

When running on Windows, AIX 6.1, or Sun Solaris 10, IBM DB2 UDB Client Version DB2 V9.5 Fix Pack 3a.

ENOVIA VPM requirement on ORACLE

Oracle 10.2.0.2 client-connection modules are required when running on Windows, AIX, and Sun.

Contact the local IBM or Oracle representative for planning and support information about DB2 or Oracle.

Notes

- DB2 UDB Enterprise Edition V9.5 Fix Pack 3a is shipped with ENOVIA V5 VPM V5.20.
- Further DB2 or Oracle fixpack requirements, if any, will be documented in program directories.
- Contact the local IBM or Oracle representative for planning and support information about DB2 or Oracle.

ENOVIA VPM Lifecycle Navigator V5 32-bit on Windows XP Professional x64 Edition

- Minimum level required: Windows XP Professional x64 Edition
- Microsoft implementation of OpenGL libraries, as delivered with Windows. For recommendations related to driver levels based on tested graphic adapters, visit

http://www.3ds.com/support

Platform-Specific Server Software Requirements

Information in this section describes requirements specific to each supported operating system on ENOVIA V5 VPM servers.

Microsoft Windows

- Microsoft Windows Server 2003 Standard Edition or Windows Server 2003 Enterprise Edition is required with Service Pack 1.
- Microsoft Windows delivers an implementation of OpenGL libraries. These libraries may be updated depending on the selected graphics adapter when installing the graphics adapter and associated drivers.
- DirectX at minimum level 8.1 -- Required for correct operation of ENOVIA V5 VPM server in a multi-user environment. Available from

http://www.microsoft.com/downloads/

Also available with Windows XP Service Pack 1.

 A localized version of the operating system may be required when the selected local installation differs from Latin1.

AIX

AIX V6.1 (using 64-bit kernel) with the following components:

- XL C/C++ Enterprise Edition V7.0.0 Run-time Environment: XL 7 May 2005 PTF R/T (xlC.aix50.rte at level 7.0.0.6), delivered through APAR IY71976
- XL Fortran Enterprise Edition V9.1.0 for AIX Run-Time: November 2004 XL Fortran for AIX V9.1 Runtime PTF, available at

http://www.ibm.com/software/awdtools/fortran

Additional support:

AIX V6.1 (using 64-bit kernel) with the following components:

- OpenGL and GL3.2 Runtime Environment (delivered with the operating system)
- CDE, delivered with the operating system
- XL C/C++ Enterprise Edition V8.0.0 Run-time Environment: January 2006 IBM C++ Runtime Environment Component for AIX, available at

http://www.ibm.com/software/awdtools/fortran

 XL Fortran Enterprise Edition V10.1.0 for AIX Run-Time: Base level available at

http://www.ibm.com/software/awdtools/fortran

- Support for the use of nodelock license requires:
 - IY80993: Workaround Application Dependency on System-ID
 - Firmware Version: AT061 061, or later
- Nodelock licensing requires the following patches:
 - IY82392: 0C9 System Crash with Graphics Adapter.
 - Support of GXT4500P requires the following patch to be applied: IY80526: CATIA V4 hangs on GXT4500P when rotating a model.

WebSphere Application Server V6.1 and WebSphere Portal Server support or IBM IntelliStation P185 support requires AIX V6.1 with above recommendations.

Sun Solaris

Sun Solaris 10 SPARC HW 03/05, including:

- C and C++ runtime environment -- Delivered with the operating system.
- OpenGL runtime environment -- Delivered with the operating system
- CDE -- Delivered with the operating system.
- 119280-06 CDE 1.6: Runtime library patch for Solaris 10 is required.

Support of the XVR 600 graphic adapter requires OpenGL runtime environment at level 1.3.

Note: A localized version of the operating system may be required when the selected installation locale differs from ISO-1.

Additional Software Requirements on the Server Side

The following components are required or optional on thin client (ENOVIA - VPM Lifecycle Navigator) servers for all supported operating systems. It is also required for VPM Navigator customers who implement ENOVIA - VPM Navigator Instant Collaboration.

WebSphere Application Server

 Implementing ENOVIA VPM Lifecycle Navigator requires WebSphere Application Server (Refer to ENOVIA VPM Lifecycle Program Directories for detailed information on ENOVIA VPM Lifecycle Navigator implementation).

Note: ENOVIA VPM Lifecycle Navigator products installed on the WebSphere Application Server are supported on AIX and Windows 2003 server.

- ENOVIA VPM Lifecycle application server and the Web Application Server may run on different machines and are installed separately. This Web Application Server requires:
 - IBM WebSphere Application Server Express, Base or Network Deployment V6.0.2 is the recommended level.
 - An HTTP server, supported by the selected WebSphere Application Server version. The following servers are supported:
 - Apache Server.
 - IBM HTTP Server.
 - Microsoft Internet Information Services.
 - Incidents specific to other servers will not be eligible for support.

LDAP: In the case that ENOVIA VPM Lifecycle Navigator Web Application Server manages SSO, an LDAP directory server supported by the selected WebSphere Application Server version is required in addition to the above middleware requirements.

ORBIX: The ORBIX 3.0.1 product (supplied with ENOVIA VPM Lifecycle Navigator) is used and enables IIOP-based, CORBA-compliant communications on the server side.

Lotus Sametime: For customers deploying ENOVIA - VPM Navigator Instant Collaboration and ENOVIA 3d com Instant Collaboration, Lotus Sametime Server V7.5.1 is required in addition to the above middleware requirements.

MQ: For customers deploying ENOVIA - Enterprise Process Management Web (E-PM) and ENOVIA - Enterprise Process Definition Web (E-PD), the following MQ applications are required in addition to the above middleware requirements:

- Message-oriented middleware: WebSphere MQ V6.0
- Workflow engine: WebSphere MQ Workflow V3.6

Additional ENOVIA V5 VPM Requirements

Access to Product Information (ENOVIA V5 VPM)

Product documentation is delivered in HTML format. An HTML browser is required to access this documentation. Product documentation may be installed and used only in an officially supported operating environment.

- On Windows, Microsoft Internet Explorer 6.0, or later, with Java plug-ins at level 1.5.
- On UNIX, except Windows, Mozilla 1.7 with Java plug-ins at level 1.5 (the java level is available in the program directories).

Although other HTML browsers might provide access to the online documentation, browsers other than those mentioned above are not eligible for support should there be problems with them.

In addition to a Java-enabled Web browser, a Java plug-in at level 1.4 is required on the client side.

Note: Improvements in HTML searching and printing capabilities eliminate the need to duplicate product information in the PDF format. PDF CDs are therefore no longer included in the ENOVIA VPLM softcopy collection kit.

Prerequisites for the ENOVIA V5 VPM License Management Environment

 Nodelock license keys are not allowed with ENOVIA V5 VPM. Dassault Systemes LUM is required to serve concurrent license keys across a network. A LUM configuration file (i4ls.ini) is required on clients to access concurrent license keys from license servers.

Note: Concurrent offline licensing is not supported.

 Dassault Systemes LUM level – The minimum release of Dassault Systemes License Use Management (LUM) V4 needed to run your application is LUM V4.6.8 (recommended with Patch 4.6.8.3). This version can be downloaded at no charge from http://www.3ds.com/support/resource-library/ or a request for a physical media can be placed through the Dassault Systemes Support.

Documentation

Complete online documentation is available on CD. Totally Weboriented using standard HTML and graphics formats, online documentation is readily accessible using a standard Web browser. Navigation help includes the ability to do full text search.

Documentation is also available in PDF. Printing and browsing requires Adobe Acrobat Reader V5.0, or later. To download, visit

http://www.adobe.com/

License Management Model

ENOVIA V5 VPM delivers identical license management mechanisms in UNIX and Windows environments, based on LUM and on the UNIX license management server, shareable across UNIX and Window clients. The following license management principles apply:

- A license key is required to use an ENOVIA V5 VPM configuration or product.
- License keys are acquired and released for the total configuration. The products within a standard or custom configuration cannot be broken up or shared outside of it.
- In all cases, license keys are acquired at the beginning of the process (login) and released at its termination (logout).

ENOVIA V5 VPM products and configurations are licensed on a concurrent usage basis.

ENOVIA VPLM General Licensing Principles

ENOVIA VPLM AOP and sharable products may require prerequisite products that are not included in a standard purchased configuration. When a prerequisite product is not included in the selected standard configuration, both the AOP and its prerequisite products must be purchased and included as AOPs within a custom configuration.

Prerequisites for shareable products can be satisfied by a standard configuration, by an AOP within a custom configuration, or by a shareable product.

Licensed Program Materials Availability

 Restricted materials - No. This licensed program is available without source licensed program materials. It is available in object code only.

Supplemental Terms

Type/Duration of Program Services (also referred to as "Support Services")

You will find all necessary information including processes, on Dassault Systemes web site :

http://www.3ds.com/terms/support-policies

Use Limitation Applies

Educational Allowance Available

No.

Designated Machine Identification

No

Test Period

No

Use-Based Charges/Usage Restrictions

Charges for this program are based on the number of users logged on at any time. The total number of users logged on may not exceed the number for which you have been authorized. If the total number exceeds your authorization, you must notify Dassault Systemes and obtain additional authorizations.

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