



CAA RADE Version 5 Release 18 Modification Level 0

Component Application Architecture Rapid Application Development Environment (CAA RADE) V5.18 includes the following features and benefits:

- Enables both 32-bit and 64-bit compilation from Microsoft Visual Studio 2005 (VC 8.0) on Microsoft® Windows® platform
- Leverages ENOVIA VPLM (1) customization with IBM Rational Software Modeler (RSM) V7.
- Widens the scope of APIs available for CATIA, ENOVIA and DELMIA V5
- Delivers unprecedented openness to facilitate PLM portfolio extension

(1) Virtual Product Lifecycle Management

Hardware Requirements

Common Hardware Requirements

Build-time Hardware Requirements for CAA RADE V5.18

Hardware requirements are identical to those for CATIA V5 or ENOVIA VPLM, depending on the applications being developed, with the following exceptions:

Required Components and Features

- **Disk drive:** An internal or external disk drive of at least 4 GB is required to store program executables, program data, usage environment, and paging space.
- **Memory:** At least 512 MB of real memory is recommended for all applications.

Windows x86-64 64-bit Platform Hardware Requirements

- **Disk drive:** 15 GB
- **Memory:** 2 GB of real memory is recommended for all applications.
- **Processor:** Intel® Xeon® EM64T, Intel Pentium®4 EM64T, AMD Opteron 64-bit

Programming Requirements

Common Software Requirements

V5.18 PLM products run on selected system levels of:

- Windows XP® and Windows XP x64
- IBM AIX®
- Hewlett Packard HP-UX 11.11 (11iv1)
- Sun™ Solaris SPARC

NOTES

As of V5.18, the following are no longer supported:

- Windows 2000 Professional
- AIX 5.2
- Solaris 8
- SGI IRIX

Run-time Software Requirements for CAA RADE V5 APIs

Run-time software requirements for CAA RADE V5 APIs are the same as those described in the applicable CATIA, DELMIA, and ENOVIA VPLM announcements.

In addition, see the following:

Platforms on which applications are built with CAA RADE Edition	Run On Windows XP	Run on Windows XP Professional x64
Windows XP	Yes	Yes*
Windows XP Professional x64 Edition	No	Yes

* When running on Windows 64-bit platforms, Windows 32-bit applications take advantage of Windows-32-on-Windows-64 emulation mode (WoW64).

Build-time Software Requirements

Refer to the *Program Directory* for the referenced product or contact your Dassault Systemes Support Center for appropriate corrective service to apply to the software described in the following topics.

Platforms Windows XP Supported Professional Edition V5.18	IBM AIX (including 64-bit support)	HP / HP-UX	Sun™ Solaris	Windows XP x64
CAA - Data Model Customizer				X*
CAA - C++ Interactive Dashboard X*				X*
CAA - Java™ Interactive Dashboard				X
CAA - Multi-Workspace Application Builder X	X	X	X	X**
CAA - C++ Unit Test Manager X	X	X	X	X**
CAA - Java Unit Test Manager X	X	X	X	X**
CAA - C++ API Documentation Generator X	X	X	X	X**
CAA - C++ Source Checker X	X	X	X	X**
CAA - Source Code Manager X	X	X	X	X**
CAA - Interactive Test Capture X	X	X	X	X**
CAA - Web Application Composer				X

* Client on Windows, Server on any platform

** Also supports Windows Server 2003® 32-bit operating system

Remarks

- Starting with V5.18, the SGI IRIX platform is no longer supported.
- Cross compilation is supported on Windows. 32-bit code must be built on a 32-bit platform and 64-bit code must be built on a 64-bit platform.
- All configurations can be installed on Windows XP Professional x64 Edition, but only the products listed in the previous table are supported on this platform.

Windows 32-bit for CAA RADE Configurations

- Microsoft Windows XP Professional Edition 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 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.
- CRT and MFC redistributable products: as delivered with V5 media; should be installed on targeted host.
- MS06-075: Vulnerability in Windows could allow elevation of privilege. Information is available at

<http://www.microsoft.com/technet/security/bulletin/MS06-075.msp>

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

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

- Compiler: Microsoft Visual Studio .Net 2005

Windows XP Professional x64 Edition

The following components at the indicated level are required for PLM V5 64-bit:

- Windows XP Professional x64 Edition
- Compiler: Microsoft Visual Studio .Net 2005

Windows 64-bit for CAA RADE Configurations

This release delivers 64-bit support on the Windows XP x64 and Windows Server 2003 x64 operating systems. This enhancement offers 64-bit support for all CAA RADE configurations. All CAA RADE products can be installed. The support for 64-bit applies to the products listed below. The CAA - Multi-Workspace Application Builder product will run in 64-bit mode.

The following products will run using Windows 32 on Windows 64 emulation mode (WoW64):

- CAA - C++ Unit Test Manager
- CAA - Java Unit Test Manager
- CAA - C++ API Documentation Generator
- CAA - C++ Source Checker
- CAA - Source Code Manager
- CAA - Interactive Test Capture

The CAA - Multi-Workspace Application Builder (MAB) product can be used to compile and link-edit native 64-bit applications. The option in the Interactive Dashboard product to automatically transfer and build (compile and link) remotely (known as Build on UNIX) is not supported for build of Win 64-bit applications. Therefore, the developer will typically manually port (transfer) the application from the 32-bit to the 64-bit Windows platform, and use the command line mkmk of MAB here to build the 64-bit application.

Building a true/native Windows 64-bit Application

The recommended approach requires installing the applicable CAA RADE configuration on both the 32-bit and 64-bit machines. The authoring tool (CID) is not supported in the 64-bit environment. The developer will author the code on a 32-bit machine, and then port/transfer the source code manually to a 64-bit machine.

Using the MAB product, the developer builds (compile and link) the application in a 64-bit environment with 64-bit executable (binary) code. The compiled and linked application will take full advantage of all the 64-bit features and functions, most notably the expanded memory and address range. When the build is completed, the CAA RADE products that are supported in a 64-bit environment can be used for testing, documenting, and so on, on the application.

An application built using this process will only run in a 64-bit environment.

Using the 32-bit Emulation Mode

The developer will build (compile and link) the code in a 32-bit environment. This includes both authoring and building the executable code. The executable (binary) code is ported/transferred to the 64-bit environment. Using the emulation mode, the code is executed. An application developed with this process will run on both the Windows 32-bit and Windows 64-bit environment but will not take advantage of all the additional 64-bit operating system capabilities available to applications developed in a native 64-bit environment.

IBM AIX (32-bit and 64-bit)

AIX V5.3 ML03 (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.3ds.com/support/>

Additional support:

- AIX V5.3 TL04-SP1 (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
- XL Fortran Enterprise Edition V10.1.0 for AIX Run-Time: Base level available at

<http://www.ibm.com/support/docview.wss?uid=swg24011532>

<http://www-1.ibm.com/support/docview.wss?uid=swg24010669>

- 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: OC9 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.
- WAS 6.1 and WPS support or IBM IntelliStation P185 support requires AIX 5.3 TL04-SP1 with above recommendations

For both AIX V5.3 ML03 and AIX V5.3 TL04-SP1 using the following C/C++ Compiler

- XL C/C++ V7.0 November 2004 PTF (Compiler) (vacpp.cmp.core at level 7.0.0.1)
- With efix to correct a namemangling regression: "Dassault Interim Fix 060728"
 - Installation instructions and usage information are available at

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

- Customization is required in addition to the namemangling fix.

Add the following option (-qnamemanglingrulefor=compat=nofnparmstypedef scmp) at the end of the "options" line in the /etc/vac.cfg file, under the default section:

DEFLT: cplusplus = /usr/vacpp/exe/xlCentry

options = -D_AIX,...-qnamemanglingrulefor=compat=nofnparmstypedefscmp

HP-UX

- HP-UX 11.v1 v2, including HP 11iv1 (11.11) December 2004 with the following requirements:
 - HP-UX Technical Computing OE (TCOE) Component December 2004
 - Hardware Enablement Patches for HP-UX 11i v1, December 2004
 - Gold Applications Patches for HP-UX 11i v1, December 2004
 - Gold Base Patches for HP-UX 11i v1, December 2004
 - With the following patches applied:
 - PHCO_31923: libc cumulative header file patch
 - PHCO_33360: libc cumulative patch
 - PHKL_31918: fsadm;ACL;locking order;8K mount;readdir
 - PHNE_32477: ONC/NFS General Release/Performance Patch
 - PHSS_29483: HP aC++ Compiler (A.03.52)
 - PHSS_31271: PEX 5.1/Starbase/Hardcopy Run (PA2.0 only)
 - PHSS_31274: Starbase/Hardcopy Dev (PA2.0 only)
 - PHSS_31275: OpenGL 1.1 Dev (PA2.0 only)
 - PHSS_32573: HP aC++ -AA runtime libraries (aCC A.03.61)
 - PHSS_32928: 3D Common Run (PA2.0 only)
 - PHSS_32934: OpenGL 1.1 Run (PA2.0 only)
 - PHSS_32939: Xserver cumulative patch
 - PHSS_33033: ld(1) and linker tools cumulative patch
- C++ compiler at level A03.52 is required.
 - C++ compiler is delivered by the B3911DB bundle.
 - PHSS_29483 : HP aC++ Compiler (A.03.52) has to be installed on top of the previous bundle.

Sun Solaris

Sun Solaris 10 H/W 05/03 (SPARC) with:

- 119280-06 CDE 1.6: Runtime library patch for Solaris 10
- C, C++ Sun Studio 10 compiler

Required patches

The following build-time patch is required in addition to the run-time patches recommended for CATIA V5.18 (listed in the CATIA Program Directory) - with C, C++ Sun Studio 10 compiler collection:

- 117830-02 C++ 5.7 sun studio 10 C++ compiler
- 117832-01 common compiler backend iropt cg ipo ss10cc
- 117834-02 f95 8.1 fortran 90 sun studio 10
- 117836-02 C 5.7: Patch for SS10 C Compiler
- 117840-02 Patch for Sun Studio 10 Fortran 95 Dynamic Libraries
- 118678-01 Patch for Sun Studio 10 Performance Analyzer Tools

Specific Software Requirements

CAA - Multi-Workspace Application Builder Product (MAB) requires:

- Java Development Kit Environment to build Interface Definition Language (IDL) interfaces and code for Java server side and client side applications, Version 1.5 on Windows® 64-bit
 - **Windows** - SUN Java Development Kit Version 5.0 Update 5 may be downloaded from

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

Note: For Windows 64-bit - SUN Java Development Kit for 64-bit is also at Version 5.0 Update 5 level.

- **IBM AIX** - Java Development Kit Version Java 1.5.0, which can be downloaded from

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

- **HP-UX** - Java Development Kit 5.0.01 may be downloaded from

<http://www.hp.com/go/java/>

- **Sun Solaris** - Java Development Kit Version 5.0 Update 7 may be downloaded from

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

CAA - C++ Interactive Dashboard (CID) requires:

- Windows XP or Windows XP Professional x64 Edition, IDE for Microsoft Visual Studio .NET 2005
- Microsoft Internet Explorer (delivered with Windows XP or with Windows XP Professional x64 Edition), at minimum level 7.0.

CAA - Data Model Customizer (DMC) requires:

- Either of the following:
 - Rational Software Modeler (RSM) Version 7
 - Rational Software Architect (RSA) Version 7
- Microsoft Internet Explorer at minimum level 7.0

CAA - C++ Unit Test Manager (CUT)

When running Automatic Run time batch test replay, it requires one of the following:

- Mortice Kern Software (MKS) Toolkit for Developer V8.1 on Windows XP
- MKS Toolkit for Developer V8.7 patch 4 on Windows XP 64-bit.

CAA - Java Unit Test Manager (JUT)

When running Automatic Run time batch test replay, it requires one of the following:

- Mortice Kern Software (MKS) Toolkit for Developer V8.1 on Windows XP

- MKS Toolkit for Developer V8.7 patch 4 on Windows XP 64-bit.

CAA - Source Code Manager requires:

- Mortice Kern Software (MKS) Toolkit for Developer V8.1 on Windows XP
- MKS Toolkit for Developer V8.7 patch 4 on Windows XP 64-bit.
- IBM DB2® Universal Database or Oracle® Enterprise Edition
 - DB2 V8.2.4 minimum on Windows, IBM AIX, HP-UX 11.11, or Sun Solaris
 - Oracle 10gR2 (10.0.2.0.2) minimum, on Windows, IBM AIX, HP-UX, or Sun Solaris

CAA - Java Interactive Dashboard (JID) requires IBM Rational Application Developer V7.0.

CAA - Web Application Composer (WAC) requires IBM Rational Application Developer V7.0.

CAA - Interactive Test Capture requires CAA - C++ Unit Test Manager.

Additional Software Requirements

Access to Online Documentation

Product information is delivered on the product CDs 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.

- Windows

Microsoft Internet Explorer 7.0 with Java plug-in Version 5.0 update 7 is available at

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

- IBM 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>

- HP-UX

When using Mozilla 1.7 browser, a Java plug-in is necessary. The recommended plug-in on HP-UX, at minimum level 5.0.0.1, is available at

<http://www.hp.com/go/java/>

- Sun Solaris

Use Mozilla Firefox 2.0 browser, which is available at

<http://www.mozilla.com/en-US/firefox/2.0.0.3/releasesnotes>

A Java plug-in is necessary for access to the Documentation search applet. The recommended plug-in on Solaris is Version 5.0 update 7, which is available under the JDK/JRE 5.0 section at

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

Although access to the online documentation might work on other HTML browsers, incidents specific to other browsers than above mentioned products are not eligible for support.

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 CAA RADE V5 softcopy collection kit.

Prerequisites for the Licensing Management Environment

Windows workstations must have a LAN card (Ethernet or Token-Ring) and TCP/IP installed and properly configured even in the case of nodelock keys, though for nodelock there is no need to have the workstations connected to the network.

No additional software is required when accessing nodelock license keys.

Dassault Systemes License Use Management (LUM) is required to serve concurrent license keys across a network. A LUM configuration file (i4ls.ini) is required on CAA RADE clients to access concurrent license keys from these servers.

Note: LUM 5 is not compatible with this V5 delivery.

Dassault Systemes LUM level – Dassault Systemes LUM at a minimum level 4.6.8.3 is required.

LUM 4.6.8 with Patch 4.6.8.3 is shipped with CAA RADE V5. Various release levels of LUM may be downloaded, at no charge, from

<http://www.3ds.com/support/resource-library/>

For Macro Replay

CATIA V5 has built-in macro record and replay capabilities.

For UNIX, components of the Visual Basic (VB) Script 3.0 interpreter, from Mainssoft, are included in the CATIA V5 shared libraries.

On Windows, the interpreter is either:

- VB Script at minimum level 5.0. This is delivered with Microsoft Internet Explorer. VB Script libraries, at level 5.0.0.3715, are delivered with IE 6.0 with later versions of Microsoft Internet Explorer. Use of VB Script is recommended for developing Windows- or UNIX-compatible macros.
- Microsoft Visual Basic for Applications (VBA) at minimum level 6.0. VBA is included with CATIA V5.

Software Installation

On Windows, the process of installation and deinstallation makes use of Windows-compliant tools such as Install Shield, simplifying the task for those familiar with Windows procedures and concepts. These procedures have also been ported to the UNIX environment to preserve a common V5 installation interface for all supported operating systems.

Key advantages of this approach include:

- Ease of installation: Any user can install and execute the product with a limited number of interactions.
- Fast installation: The RADE products install and are ready to use quickly.
- Reduced user environment: When installed, a minimum of customization is necessary to give access to the product to any user.
- Customizable installation: Installation procedures include the possibility to select downloaded products.

Documentation

Online guides are provided with CAA RADE V5, including:

- Reference documentation for class, interface, global function, macro, enumeration, and header files
 - C++ objects - Extended CAA
 - Java objects - Extended CAA
 - Scripting objects - Standard CAA
- RADE tool documentation
- V5 C++, Java and Automation programming and methodology documentation
 - Methodology guides
 - Programming guides for CATIA and ENOVIA VPLM APIs, by domain, including use cases, technical articles and quick reference guides
 - Programming guides for architecture fundamentals
 - CAA code samples

These guides are part of the complete online documentation provided on CD. Totally Web-oriented using standard HTML and graphics formats, it is readily accessible using a standard Web browser. Navigation help includes the ability to do full text search.

License Management Model

CAA RADE V5 delivers identical license management mechanisms on UNIX and Windows environments, based on LUM and on the UNIX license management server, sharable across UNIX and Window clients. The following license management principles apply:

- License key is required to use a CAA RADE 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).

A customer application program being developed using CATIA or ENOVIA VPLM APIs will behave at run-time with the very same licensing mechanism than as any other CATIA or ENOVIA VPLM interactive product. In this respect, the same rules will remain. In particular, CATIA - Object Manager (CO1, COM, or CO3) will be required for all CATIA run-time application programs.

The same principles apply when testing and debugging custom applications within the RADE tools.

CAA RADE V5 can be used in two licensing management modes, either nodelock or with concurrent keys on a network.

Nodelock Usage

The use of local display of the hardware configuration is mandatory for use of CAA RADE V5 in nodelock mode.

There are no limits to the number of CAA RADE V5 processes that may be launched for a given license. For example, a user may run multiple link-editing tasks with a single license.

Concurrent Usage

A user on one machine and one display uses one license key per configuration or product used, regardless of the number of processes. If the display changes, then an additional license key is taken for the corresponding process.

License keys for CAA RADE V5 configurations are acquired and released for the total configuration. The functions within a configuration cannot be shared.

Concurrent Offline License Keys

The concurrent licensing control technique is available via the LUM server.

Note: Concurrent offline license management is not available on 64-bit platforms.

It gives CATIA, ENOVIA DMU, DELMIA, and RADE applications, running on a laptop with a Windows platform, the ability to disconnect from the license server for a defined period of time, so that users can take advantage of full license capability while mobile. During this checkout period, the license key is unavailable for use by another concurrent user. This feature is designed to add flexibility to users' work environments.

All terms and conditions, including Cross Border licensing terms, are unchanged, and users will check out and check in license keys at their home server, where rules and procedures are controlled by LUM.

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>

Independent Software Vendors and Service Providers

Independent software vendors (ISVs) and service providers (SPs), as defined in the following text, must obtain licenses to CAA RADE directly from Dassault Systemes SA. An ISV is an entity which has as a core business the development of generally available application programs for computer aided design/engineering/ manufacturing and product integrated management.

An SP is an entity which has as a core business the delivery of consulting, integration and other information systems services to third parties in the areas of computer-aided design/engineering/manufacturing and product integrated management.

Use of CAA RADE V5 by Customers other than ISVs and SPs

The following provisions ("Additional Supplemental Terms") are in addition to the terms and conditions. You may not use the Program if you do not have a valid Agreement in place with Dassault Systemes or if you do not accept these Additional Supplemental Terms. Any capitalized terms that are not defined herein are defined in the Agreement.

You are licensed to distribute your applications developed with the CAA RADE Configurations, hereinafter known as "V5 Complementary Applications," to your subcontractors and direct and indirect suppliers solely for performance of work by such subcontractors and suppliers for your benefit. This license includes your right to authorize your subcontractors and direct and indirect suppliers to use, execute, reproduce, display, perform and distribute internally the V5 Complementary Applications.

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Designated Machine Identification

No

Test Period

No

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Footnotes:

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