

# What's New in Optegra<sup>®</sup> Release 7

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Release 7

DOC50016-002

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# Preface

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*What's New in Optegra Release 7* provides information on new features and enhancements to Optegra.

## Related Documents

The *Optegra Release 7 Release Notes* can be helpful as you use the *What's New in Optegra Release 7*.

## Book Conventions

The following table illustrates and explains conventions used in writing about Optegra applications.

Convention	Example	Explanation
EPD_HOME	cd \$EPD_HOME/install (UNIX)  cd %EPD_HOME%\install (Windows)	Represents the default path where the current version of the product is installed.
Menu selections	Vault > Check Out > Lock	Indicates a command that you can choose from a menu.
Command buttons and options	Mandatory check box, Add button, Description text box	Names selectable items from dialog boxes: options, buttons, toggles, text boxes, and switches.
User input and code	Wheel_Assy_details  -xvf /dev/rst0  Enter command> <b>plot_config</b>	Enter the text in a text box or on a command line.  Where system output and user input are mixed, user input is in bold.
System output	CT_struct.aename	Indicates system responses.
Parameter and variable names	tar -cvf /dev/rst0 filename	Supply an appropriate substitute for each parameter or variable; for example, replace <b>filename</b> with an actual file name.
Commands and keywords	The ciaddobj command creates an instance of a binder.	Shows command syntax.
Text string	"SRFGROUPA" or 'SRFGROUPA'	Shows text strings. Enclose text strings with single or double quotation marks.
Integer	n	Supply an integer for <i>n</i> .
Real number	x	Supply a real number for <i>x</i> .
#	# mkdir /cdrom	Indicates the root (superuser) prompt on command lines.
%	% rlogin remote_system_name -l root	Indicates the C shell prompt on command lines.
\$	\$ rlogin remote_system_name -l root	Indicates the Bourne shell prompt on command lines.
>	> copy filename	Indicates the MS-DOS prompt on command lines.
Keystrokes	Return or Control-g	Indicates the keys to press on a keyboard.



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## Online User Documentation

Online documentation for each Optegra book is provided in HTML if the documentation CD-ROM is installed. You can view the online documentation from an HTML browser or from the HELP command.

You can also view the online documentation directly from the CD-ROM without installing it.

From an HTML Browser:

1. Navigate to the directory where the documents are installed. For example,  
\$EPD\_HOME/data/html/htmldoc/ (UNIX)  
%EPD\_HOME%\data\html\htmldoc\ (Windows NT)
2. Click `mainmenu.html`. A list of available Optegra documentation appears.
3. Click the book title you want to view.

From the HELP Command:

To view the online documentation for your specific application, click HELP. (Consult the documentation specific to your application for more information.)

From the Documentation CD-ROM:

1. Mount the documentation CD-ROM.
2. Point your browser to:  
CDROM\_mount\_point/htmldoc/mainmenu.html (UNIX)  
CDROM\_Drive:\htmldoc\mainmenu.html (Windows NT)

## Printing Documentation

A PDF (Portable Document Format) file is included on the CD-ROM for each online book. See the first page of each online book for the document number referenced in the PDF file name. Check with your system administrator if you need more information.

You must have Acrobat Reader installed to view and print PDF files.

The default documentation directories are:

- \$EPD\_HOME/data/html/pdf/doc\_number.pdf (UNIX)
- %EPD\_HOME%\data\html\pdf\doc\_number.pdf (Windows NT)

## Resources and Services

For resources and services to help you with PTC (Parametric Technology Corporation) software products, see the *PTC Customer Service Guide*. It includes instructions for using the World Wide Web or fax transmissions for customer support.

## Documentation Comments

PTC welcomes your suggestions and comments. You can send feedback electronically to [doc-webhelp@ptc.com](mailto:doc-webhelp@ptc.com).

# New Features and Enhancements

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This document provides an overview of the new features and enhancements in Optegra Release 7 grouped by product. For detailed information, see the product-specific online documentation.

- General Enhancements
- Vault
- EPD.Connect

# General Enhancements

## HOOPS Upgrade for Visualizer

Optegra Release 7 and CADD5 5i Release 13 now use the HOOPS 7 version.

## JDK 1.3 Upgrade

The Optegra Java Information Browser now uses JDK 1.3 for class compilation and JRE 1.3 for the runtime environment. This upgrade enables you to maintain uniform JDK version across products as well as supports the third party widgets that are based on JDK 1.3.

## Oracle9i Upgrade

This release of Optegra supports an upgrade to Oracle9i Release 2 (9.2.0.1.0)

# Vault

## Vault Installation Enhancement

While installing Vault, now you can:

- Use small, medium, and large database models.
- Pause the installation of Vault on Windows NT to perform specific configurations. For more information about installing Vault, refer to the *Optegra Release 7 Release Notes*.
- Run Vault without a dependency on the `db_block_size` variable in Oracle, which has been removed.

## Perl Extensions to SVedm

This Optegra release provides the ability to call `SVedm` APIs from Perl scripts. You can:

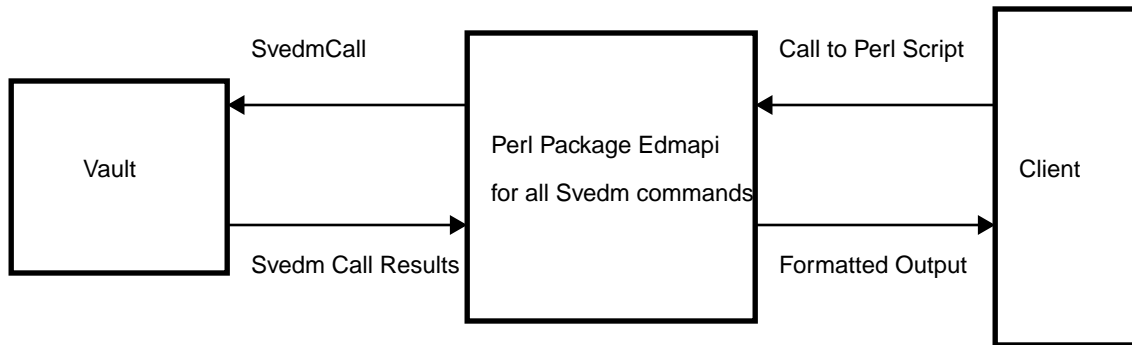
- Use these APIs for customization.
- Write a program using the `SVedm` programmatic interface in Vault using the Perl programming language.
- Use a single Perl function for all Vault functions similar to the C single-point entry `SVedm` call.

Input to the `edmsvedm` function is done via a variable string argument mechanism. You first name the command as a string followed by arguments containing `keyword/value` pairs to be processed by the command. The argument list must be terminated with a `NULL`.

You run a program written in Perl by entering the following command in response to the operating system prompt:

```
${EDM_HOME}/CVperl/bin/perl edmapitest.pl
```

The next illustration shows how the Svedm API is called.



## Published Sockets for Remote Procedure Calls

The Optegra Firewall Administrator can now decide in advance the ports that should be accessible for the users outside the firewall. To do this, configure the Vault server using the `nsm.config` file. The ports can now be configured for generic servers.

You can use published sockets or predefined ports instead of random ports for Remote Procedure Calls in order to use firewalls.

Include in the `nsm.config` file the following line in the AE entry for the RPC based servers, for which predefined ports are needed:

```
USER (RESTRICTPORT=min_port-max_port)
```

For example,

```
USER (RESTRICTPORT=8800-8850)
```

Adding this line restricts the AE to use only the lowest available port number in the range of 8800 through 8850.

# EPD.Connect

Enhancements to EPD.Connect are described in the next few sections. See *EPD.Connect User Guide* for details.

## Working with Four Product Structure Windows

With this release of Optegra, you can perform a number of operations using the product structure configurations that are open, such as,

- Display multiple product structure configurations in EPD.Visualizer or 3D Viewer.
- Identify the Product Structure window from which the component is loaded.
- Compare two product structure trees loaded in different Product Structure windows.
- Perform clash detection for nodes selected across different Product Structure windows.
- Highlight components by zone across different Product Structure windows.
- Identify a Product Structure window based on the active configuration.

Each of the previous operations are explained in the next sections.

### Displaying Multiple Product Structure Configurations in EPD.Visualizer or 3D Viewer

You can load more than one product structure configuration in the EPD.Visualizer or the 3D Viewer. After starting the Viewer, you can load the components from a product structure window by clicking **Display > Load > Selected**. Similarly, you can load components from other product structure windows. The Viewer displays all the components loaded from different product structure windows.

### Identifying the Product Structure Window from Which the Component Is Loaded

You can now identify the Product Structure window from which the component was loaded into the Viewer. When you select the component from the Viewer, the corresponding node highlights in the Product Structure window from which it is loaded. The status indicator of the Product Structure window changes to green.

## Comparing the Tree Components across Product Structure Windows

You can compare the tree components across different Product Structure windows by clicking **File > Compare** or the **Compare** icon. The color of the text label of the displayed tree components indicates the results of the comparison.

You can also compare the active product structure configurations with the product structure configuration stored in the memory.

## Highlighting Components by Zone across Product Structure Windows

You can now highlight components by zone across different Product Structure windows by clicking **Tools > Zoning**. On performing zoning, the nodes in the selected configurations that are covered by the zone are highlighted in the Product Structure window, irrespective of whether the corresponding product structure is active.

## Performing Clash Detection across Product Structure Windows

You can perform clash detection on nodes present in different product structure windows by clicking **Tools > Clash Detection**. On performing clash detection, the nodes that clash are indicated by the indicator color of a component in the product structure tree.

## Identifying Product Structure Window by the Configuration Name

You can identify the Product Structure windows by the name of the active configuration in that Product Structure window. Click **Window > Structure Window**. The submenu of the Structure Window Option displays the names of the configurations that are active in the Product Structure windows.

You can also click the Product Structure window to view the name of the active configuration on the EPD.Connect title bar.



## Establishing Persistent Database Connectivity in EPD.Visualizer

### Database Connectivity at Startup

You can set up a default connection to the Oracle Database Management System (DBMS) whenever you start EPD.Visualizer. To set up the default connection, set the environment variable `VIS_DBCONN_ATSTART` to 1.

Please note:

- EPD.Visualizer establishes connection with the DBMS specified by the environment variable `DBMS_HOST`.
- The username and password are taken from the environment variables `VIS_DB_USERNAME` and `VIS_DB_PASSWORD`, respectively, in the `Visualizer.ini` file.

### Persistent Connection to the Database

You can establish a persistent connection to the DBMS in EPD.Visualizer by setting the `VIS_PERSIST_DBCONN` environment variable to 1. The connection is not reset even when you start a new session by clicking `File > New Session`. When you set the value of `VIS_PERSIST_DBCONN` to 1,

- You can reset the connection by clicking `Database > Disconnect`.
- The options `Database > QueryType` and `Database > Tagging` are available only when you load an image.

Please note: Persistent connection is applicable only to the DBMS. The connection to the ASCII database is always reset when you start a new session.

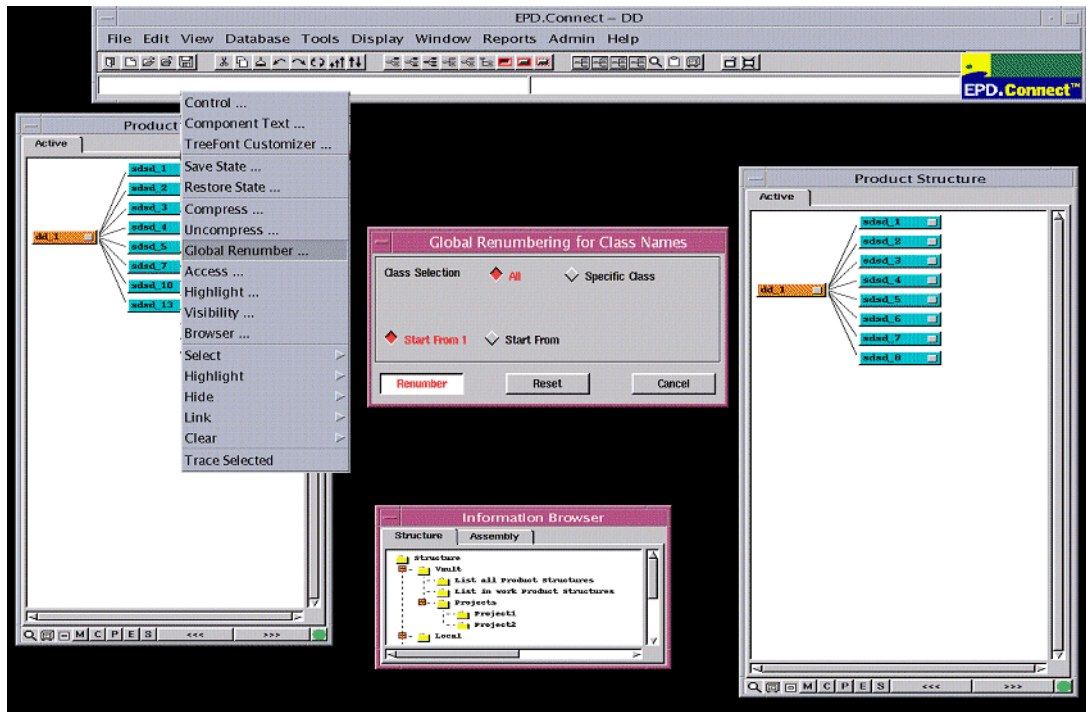
## Hiding Highlighted Nodes

You can now hide the highlighted nodes of an opened Product Structure by using `View > Hide > Highlighted`.

## Renumbering on a Global Basis

You can renumber the instances of a specific class or of all classes in an active Product Structure tree by clicking `View > Global Renumber`. Note that the numbering of the Product Structure nodes in the structure in the assembly mode is contiguous. You can start the renumbering at 1 or at a number other than 1.

The next figure illustrates the result of using global renumbering.



## Registering ADRAWs Associated with CAMU Files

You can register or unregister ADRAWs associated with the Concurrent Assembly Mock-Up (CAMU) files when you register or unregister CAMU files in the Distributed Vault environment. Set the `CA_ADD_ADRAWS_IN_CAMU` variable in the `epdconn.ini` file to 1. (This is the default.) This registration results in an increased usability of EPD.Connect when you are working with the CAMU files in the Distributed Vault environment.

If you do not want to register or unregister the ADRAWs associated with the CAMU files when you register or unregister CAMU files, set the value of `CA_ADD_ADRAWS_IN_CAMU` variable to 0.

## GET and READ Dependent Objects

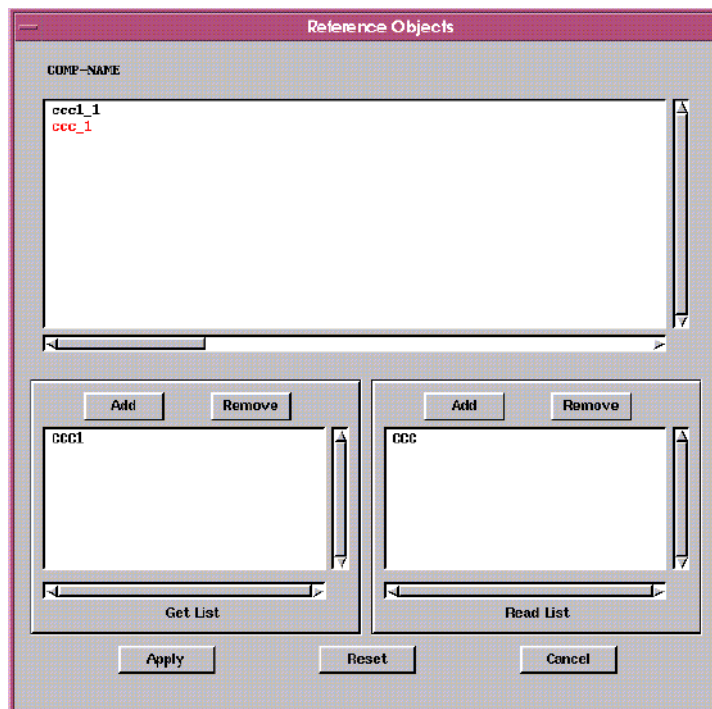
You can selectively get or read the dependent or referenced Vault objects by setting the value of the variable `CA_PROCESS_REF_OBJECTS` to YES in the `epdconn.ini` file.

You can display all the referenced Vault objects by setting the Expand References option to All in the Open Configuration dialog box.

The Reference Objects dialog box allows you to specify the referenced objects to get (GET LIST) and referenced objects to read (READ LIST). After clicking OK, the referenced objects in GET LIST and the referenced objects in READ LIST will be get and read after the main object is get and read.

The audit log displays the individual status of the get and read operations. After processing all selected Vault objects, a summary message is displayed in the Audit Log and the EPD.Connect message window. This message displays the total objects selected for get, the total objects successfully gotten, the total objects not gotten, the total objects selected for read, the total objects read, and the total objects not read.

The following figure shows the Reference Objects dialog box.



## Dual Display Feature

The Optegra dual display feature allows you to view:

- EPD.Connect on one computer screen and EPD.Visualizer on another
- CADD5 5i on one computer screen and EPD.Connect on another

To use the dual display feature in EPD-enabled CADD5, you require the CC5-CV6528-F CADD5 EPD.Connect Dualscreen Activation license.

Please note: The CADD5 5i and EPD.Connect dual display is available only in the OpenGL mode.

The VISUALIZER\_DISPLAY and CADD5\_DISPLAY environment variables allow you to use and control the Optegra dual display. The default value for both these variables is \$DISPLAY of the local machine in \$EPD\_HOME/scripts/Connect.

The following table shows the samples of the environment variable settings for displaying EPD.Connect and EPD.Visualizer on dual computer screens.

Scenario	Display 1	Display 2	Variable Setting
Case1: EPD.Connect and EPD.Visualizer	EPD.Visualizer	EPD.Connect with Product Structures	DISPLAY and CMOM_DISPLAY are set to <machine name>:0.1 or :0.1 CMOM_DOMAIN is set to a user-defined value. VISUALIZER_DISPLAY is set to <machine name>:0.0 or :0.0

The following table shows the samples of the environment variable settings for displaying CADD5 5i and EPD.Connect on dual computer screens.

Scenario	Display 1	Display 2	Variable Setting
Case 1: CADD5 5 and EPD.Connect	CADD5 5 graphics window	EPD.Connect with Product Structures and Visualizer  CADD5SHADE window, CADD5 You Are Here window.	DISPLAY and CMOM_DISPLAY are set to <machine name>:0.1 or :0.1 CMOM_DOMAIN is set to a user-defined value. VISUALIZER_DISPLAY is set to <machine name>:0.1 or :0.1 CADD5_DISPLAY is set to <machine name>:0.0 or :0.0

Dual display is supported on the Solaris and HP-UX operating systems under Common Desktop Environment.

Please note: Dual Display is possible when

- Display 1 and Display 2 are running on the same Xserver.
- Display 1 and Display 2 are connected to the same machine.

