

# What's New in Optegra<sup>®</sup> Release 6

---

Release 6

DOC50016-001

---

**Copyright © 2001 Parametric Technology Corporation. All Rights Reserved.**

User documentation from Parametric Technology Corporation (PTC) is subject to copyright laws of the United States and other countries and is provided under a license agreement, which restricts copying, disclosure, and use of such documentation. PTC hereby grants to the licensed user the right to make copies in printed form of PTC user documentation provided on software or documentation media, but only for internal, noncommercial use by the licensed user in accordance with the license agreement under which the applicable software and documentation are licensed. Any copy made hereunder shall include the Parametric Technology Corporation copyright notice and any other proprietary notice provided by PTC. User documentation may not be disclosed, transferred, or modified without the prior written consent of PTC and no authorization is granted to make copies for such purposes.

Information described in this document is furnished for general information only, is subject to change without notice, and should not be construed as a warranty or commitment by PTC. PTC assumes no responsibility or liability for any errors or inaccuracies that may appear in this document.

The software described in this document is provided under written license agreement, contains valuable trade secrets and proprietary information, and is protected by the copyright laws of the United States and other countries. UNAUTHORIZED USE OF SOFTWARE OR ITS DOCUMENTATION CAN RESULT IN CIVIL DAMAGES AND CRIMINAL PROSECUTION.

**Registered Trademarks of Parametric Technology Corporation or a Subsidiary**

Advanced Surface Design, CADD5, CADDShade, Computervision, Computervision Services, Electronic Product Definition, EPD, HARNESSDESIGN, Info\*Engine, InPart, MEDUSA, Optegra, Parametric Technology, Parametric Technology Corporation, Pro/ENGINEER, Pro/HELP, Pro/INTRALINK, Pro/MECHANICA, Pro/TOOLKIT, PTC, PT/Products, Windchill, InPart logo, and PTC logo.

**Trademarks of Parametric Technology Corporation or a Subsidiary**

3DPAINT, Associative Topology Bus, Behavioral Modeler, BOMBOT, CDRS, CounterPart, CV, CVact, CVaec, CVdesign, CV-DORS, CVMAC, CVNC, CVToolmaker, DesignSuite, DIMENSION III, DIVISION, DVSAFEWORK, DVS, e-Series, EDE, e/ENGINEER, Electrical Design Entry, Expert Machinist, Expert Toolmaker, Flexible Engineering, *i*-Series, ICEM, Import Data Doctor, Information for Innovation, ISSM, MEDEA, ModelCHECK, NC Builder, Nitidus, PARTBOT, PartSpeak, Pro/ANIMATE, Pro/ASSEMBLY, Pro/CABLING, Pro/CASTING, Pro/CDT, Pro/CMM, Pro/COMPOSITE, Pro/CONVERT, Pro/DATA for PDGS, Pro/DESIGNER, Pro/DESKTOP, Pro/DETAIL, Pro/DIAGRAM, Pro/DIEFACE, Pro/DRAW, Pro/ECAD, Pro/ENGINE, Pro/FEATURE, Pro/FEM-POST, Pro/FLY-THROUGH, Pro/HARNESS-MFG, Pro/INTERFACE for CADD5, Pro/INTERFACE for CATIA, Pro/LANGUAGE, Pro/LEGACY, Pro/LIBRARYACCESS, Pro/MESH, Pro/Model.View, Pro/MOLDESIGN, Pro/NC-ADVANCED, Pro/NC-CHECK, Pro/NC-MILL, Pro/NC-SHEETMETAL, Pro/NC-TURN, Pro/NC-WEDM, Pro/NC-Wire EDM, Pro/NCPOST, Pro/NETWORK ANIMATOR, Pro/NOTEBOOK, Pro/PDM, Pro/PHOTORENDER, Pro/PHOTORENDER TEXTURE LIBRARY, Pro/PIPING, Pro/PLASTIC ADVISOR, Pro/PLOT, Pro/POWER DESIGN, Pro/PROCESS, Pro/REPORT, Pro/REVIEW, Pro/SCAN-TOOLS, Pro/SHEETMETAL, Pro/SURFACE, Pro/VERIFY, Pro/Web.Link, Pro/Web.Publish, Pro/WELDING, Product Structure Navigator, PTC *i*-Series, Shaping Innovation, Shrinkwrap, The Product Development Company, Virtual Design Environment, Windchill e-Series, CV-Computervision logo, DIVISION logo, and ICEM logo.

**Third-Party Trademarks**

Oracle is a registered trademark of Oracle Corporation. Windows and Windows NT are registered trademarks of Microsoft Corporation. Java and all Java based marks are trademarks or registered trademarks of Sun Microsystems, Inc. CATIA is a registered trademark of Dassault Systems. PDGS is a registered trademark of Ford Motor Company. SAP and R/3 are registered trademarks of SAP AG Germany. FLEX/m is a registered trademark of GLOBEtrouter Software, Inc. VisTools library is copyrighted software of Visual Kinematics, Inc. (VKI) containing confidential trade secret information belonging to VKI. HOOPS graphics system is a proprietary software product of, and copyrighted by, Tech Soft America, Inc. All other brand or product names are trademarks or registered trademarks of their respective holders.

---

---

**UNITED STATES GOVERNMENT RESTRICTED RIGHTS LEGEND**

This document and the software described herein are Commercial Computer Documentation and Software, pursuant to FAR 12.212(a)-(b) or DFARS 227.7202-1(a) and 227.7202-3(a), and are provided to the Government under a limited commercial license only. For procurements predating the above clauses, use, duplication, or disclosure by the Government is subject to the restrictions set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software Clause at DFARS 252.227-7013 or Commercial Computer Software-Restricted Rights at FAR 52.227-19, as applicable.

**Parametric Technology Corporation, 140 Kendrick Street, Needham, MA 02494-2714**

**8 January 2001**

---



---

# Table of Contents

---

## Preface

Related Documents .....	vii
Book Conventions .....	viii
Online User Documentation .....	ix
Printing Documentation .....	ix
Resources and Services .....	x
Documentation Comments .....	x

## New Features and Enhancements

Performance Enhancements .....	1-2
EPD.Connect .....	1-2
Vault .....	1-6
EPD.Connect .....	1-9
Working with Additional Product Structure Windows .....	1-9
Interacting with the Product Structure Window .....	1-10
Sorting the Product Structure Nodes .....	1-12
Switching the DOD .....	1-14
Using Associative Topology Bus in Assembly Mode .....	1-14
Storing Multiple Objects .....	1-14
Selecting Multiple Objects for Review and Response .....	1-14
Accessing Review Comments from the Data Browser .....	1-16
Copying and Pasting in the Data Browser .....	1-17
Opening and Closing Reference Components .....	1-18
Defining Assembly Attributes and Values Externally .....	1-18

---

Selecting Nodes by the Access Indicator _____	1-18
Using Logical Operators for Highlighting or Hiding Nodes____	1-19
Using the Enhancements to Reporting _____	1-19
Opening a Product Structure from the CVPATH _____	1-19
EPD.Visualizer _____	1-20
Interacting with the Report Viewer Window _____	1-20
Making Selected Objects Transparent _____	1-21
Selecting, Scrolling, and Running a Report _____	1-22
Information Browser _____	1-22
SWING Tree Component _____	1-22
Detecting a Change in the DOD _____	1-22
EDMOSRV _____	1-23
AccessWare _____	1-24
Cut, Copy, and Paste Operations _____	1-24
Drag-and-Drop Operations _____	1-24
QTEXT and QLIST Linking_____	1-24
Scrolling a List _____	1-24

---

# Preface

---

*What's New in Optegra Release 6* provides information on new features and enhancements to Optegra.

## Related Documents

The *Optegra Release 6 Release Notes* can be helpful as you use the *What's New in Optegra Release 6*.

## 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.



---

## 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 in the following ways:

- Send comments electronically to [doc-webhelp@ptc.com](mailto:doc-webhelp@ptc.com).
- Fill out and mail the PTC Documentation Survey located in the *PTC Customer Service Guide*.

# New Features and Enhancements

---

This document provides an overview of the new features and enhancements in Optegra Release 6 grouped by product. For detailed information see the product-specific online documentation.

- Performance Enhancements
- EPD.Connect
- EDMOSRV
- AccessWare

# Performance Enhancements

The performance of EPD.Connect and Optegra Vault has been enhanced.

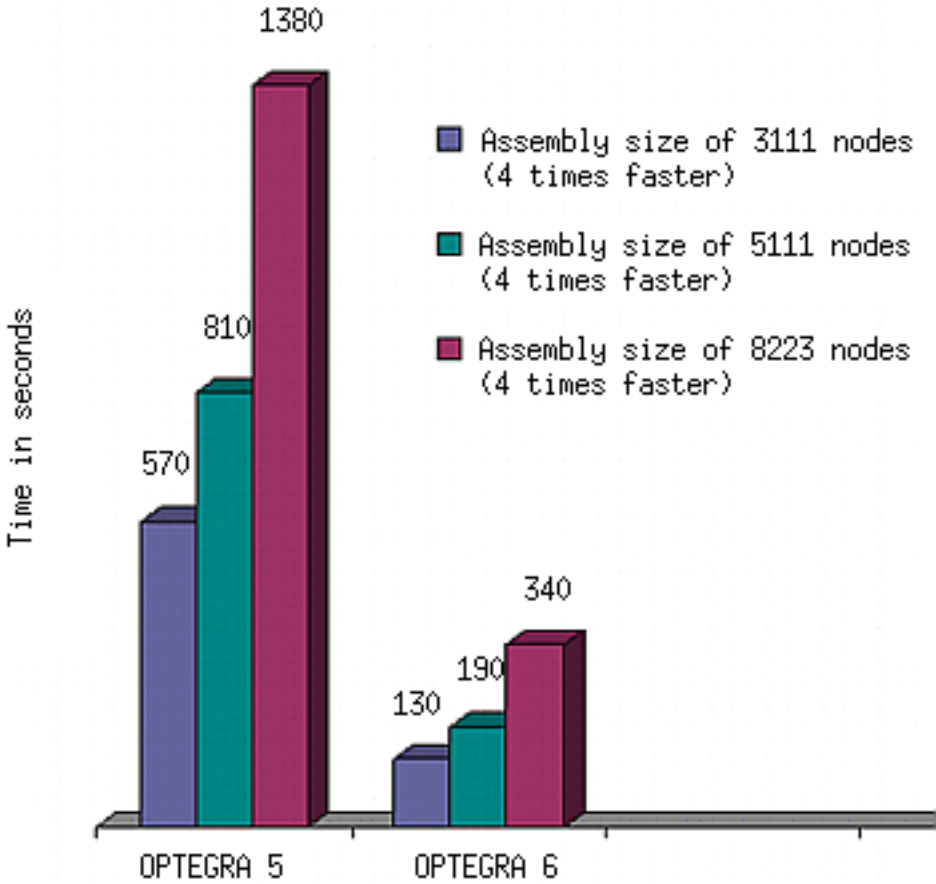
Please note: The test results shown in the following sections may vary depending on the platforms or the networks used.

## EPD.Connect

The performance of many areas in EPD.Connect has been enhanced by reducing the processing time.

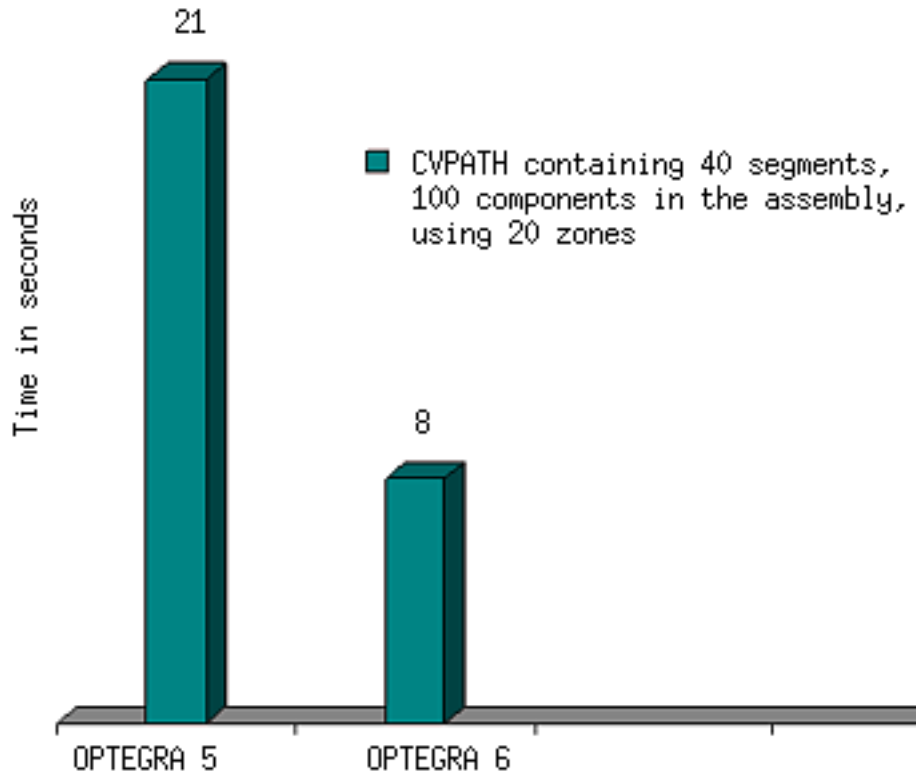
- Opening a product structure tree

Figure 1-1 Results of Opening a Product Structure Configuration



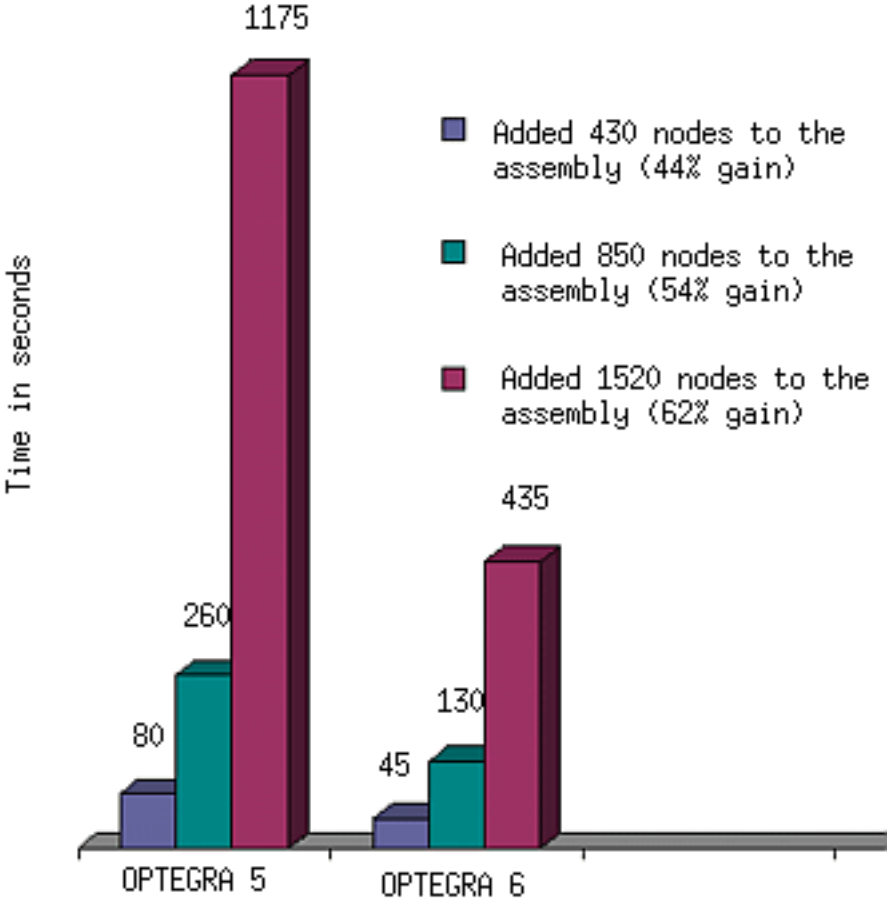
- Startup of the clash detection and zoning from EPD.Connect
- Using clash detection with respect to the components and zones based on the user-defined configuration.

**Figure 1-2 Results of Clash Detection and Zoning**



- Adding large assemblies in Assembly mode

Figure 1-3 Results of Adding Large Assemblies



The next table provides the test environments from which the test results are derived:

**Table 1-1 Test Platforms**

	<b>Optegra 5</b>	<b>Optegra 6</b>
Hardware	SUNW, Ultra 60	SUNW, Ultra 60
Processor	2 X SUNW, UltraSparc II - 296 MHz	2 X SUNW, UltraSparc II - 296 MHz
Swap	909 MB	910 MB
Memory	512 MB	512 MB
Hard disk	18 x 2 GB	18 x 2 GB
Operating system	Solaris 2.6	Solaris 2.6

## Vault

The performance of many Vault functions has been enhanced by reducing the processing time.

- Attribute server interaction with the Vault database
- Database interaction for the file transfer commands

The next table provides the test environments from which the test results are derived. The client configuration is the same as the server configuration for all the test results

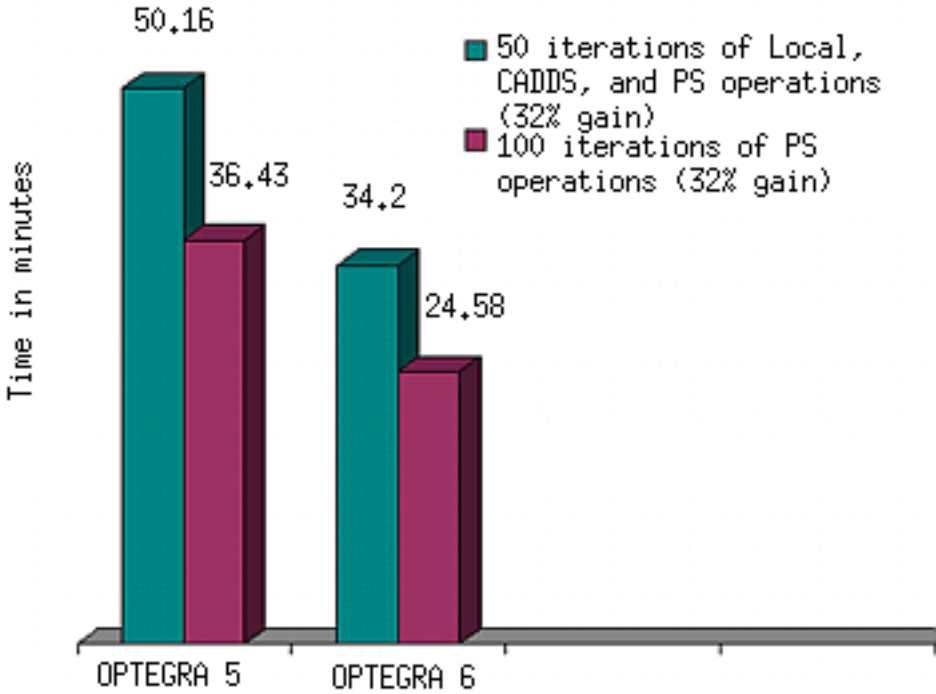
**Table 1-2 Test Platforms**

	<b>Server Optegra 5</b>	<b>Server Optegra 6</b>
Hardware	SUNW, Ultra 60	SUNW, Ultra 60
Processor	2 X SUNW, UltraSparc II - 450 MHz	2 X SUNW, UltraSparc II - 450 MHz
Swap	910 MB	910 MB
Memory	512 MB	512 MB
Hard disk	18 x 2 GB	18 x 2 GB
Operating system	Solaris 2.6	Solaris 2.6
Oracle version	8.0.4	8.1.6
Storage pool	8 x 350 MB	8 x 350 MB



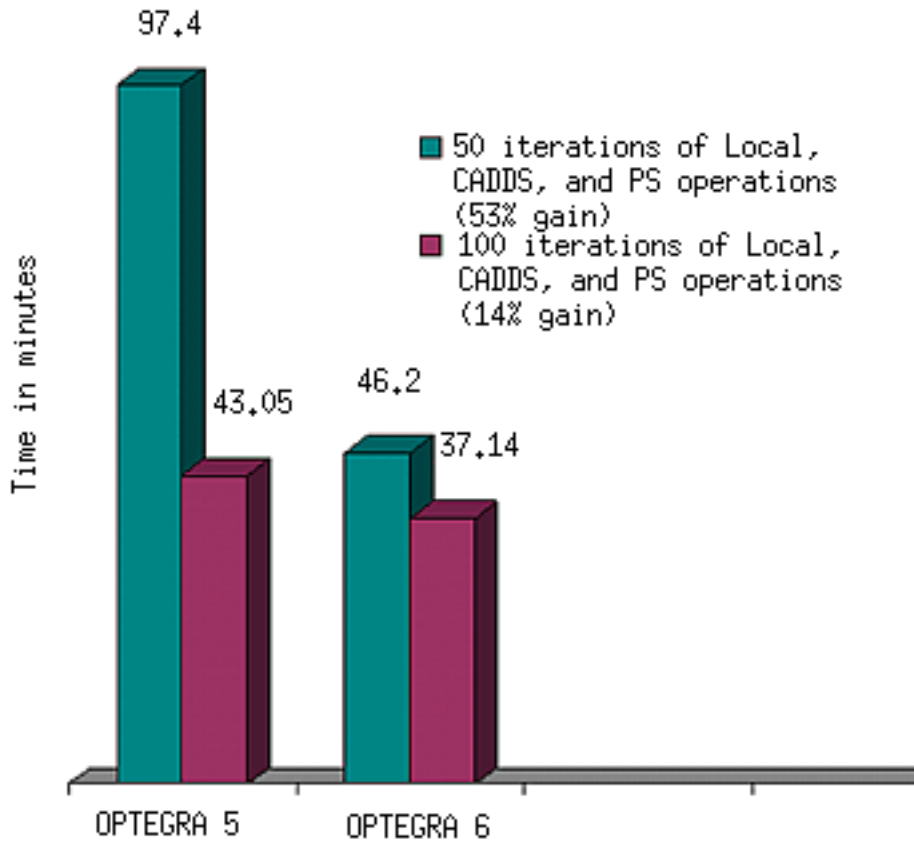
The following illustration shows the test results when a single client is connected.

Figure 1-4 Results When a Single Client Is Connected



The following illustration shows the test results when three clients are connected.

**Figure 1-5 Results When Three Clients Are Connected**



For arriving at the above results, a Vault database setup of about 160,000 files, 26,000 parts, 4 million attributes, and 3,000 users was used.

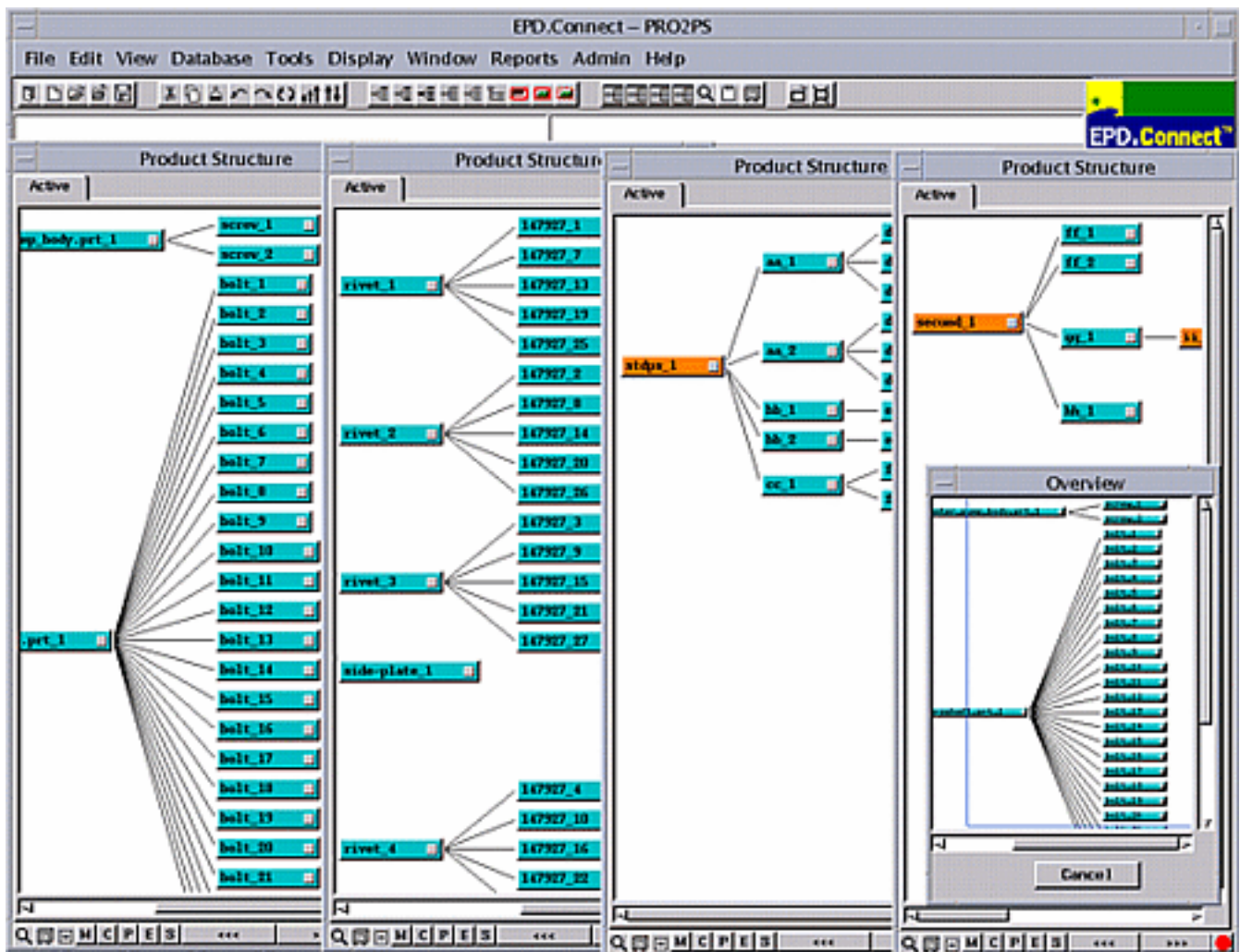
# EPD.Connect

Many new features are now available in EPD.Connect, EPD.Visualizer, and Information Browser.

## Working with Additional Product Structure Windows

You can now open up to four Product Structure windows simultaneously and work on them in Structure mode. The File > New option allows you to create a maximum of four product configurations. You can also open a maximum of four Product Structure windows at a time using the File > Open option.

Figure 1-6 Opening Four Product Structure Windows



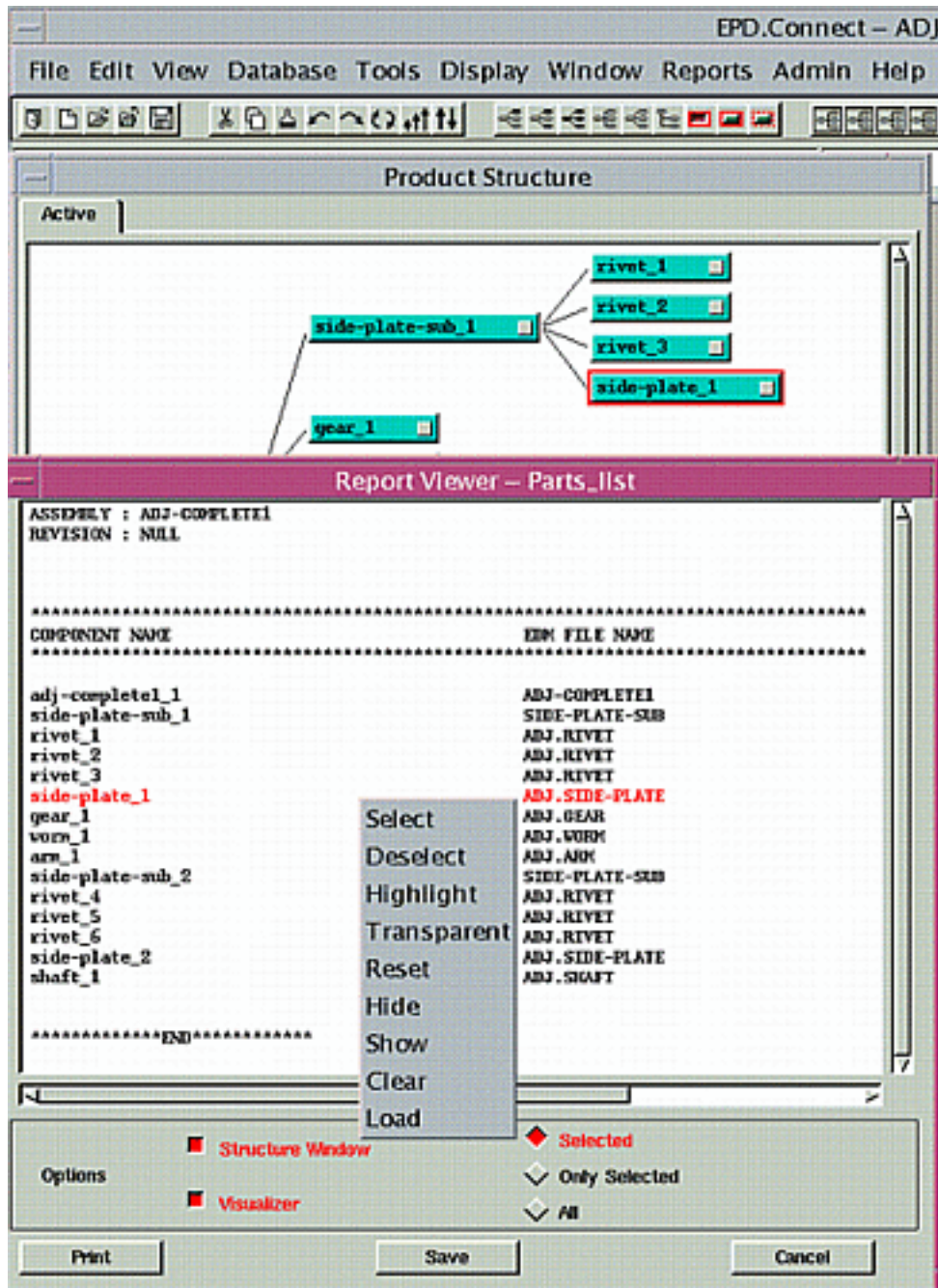
See the *EPD.Connect User Guide* for details.

## Interacting with the Product Structure Window

The Report Viewer window can now interact with the Product Structure window.

- The Structure Window option in the Report Viewer window allows you to specify the application with which you want the Report Viewer to interact.
- An index file establishes the connection between the Report Viewer window and the Product Structure window.
- You can select, deselect, highlight, make transparent, reset, hide, show, clear, and load components in the Product Structure window.

Figure 1-7 Interaction Between the Report Viewer Window and the Product Structure Window



See the *EPD.Connect User Guide* for details.

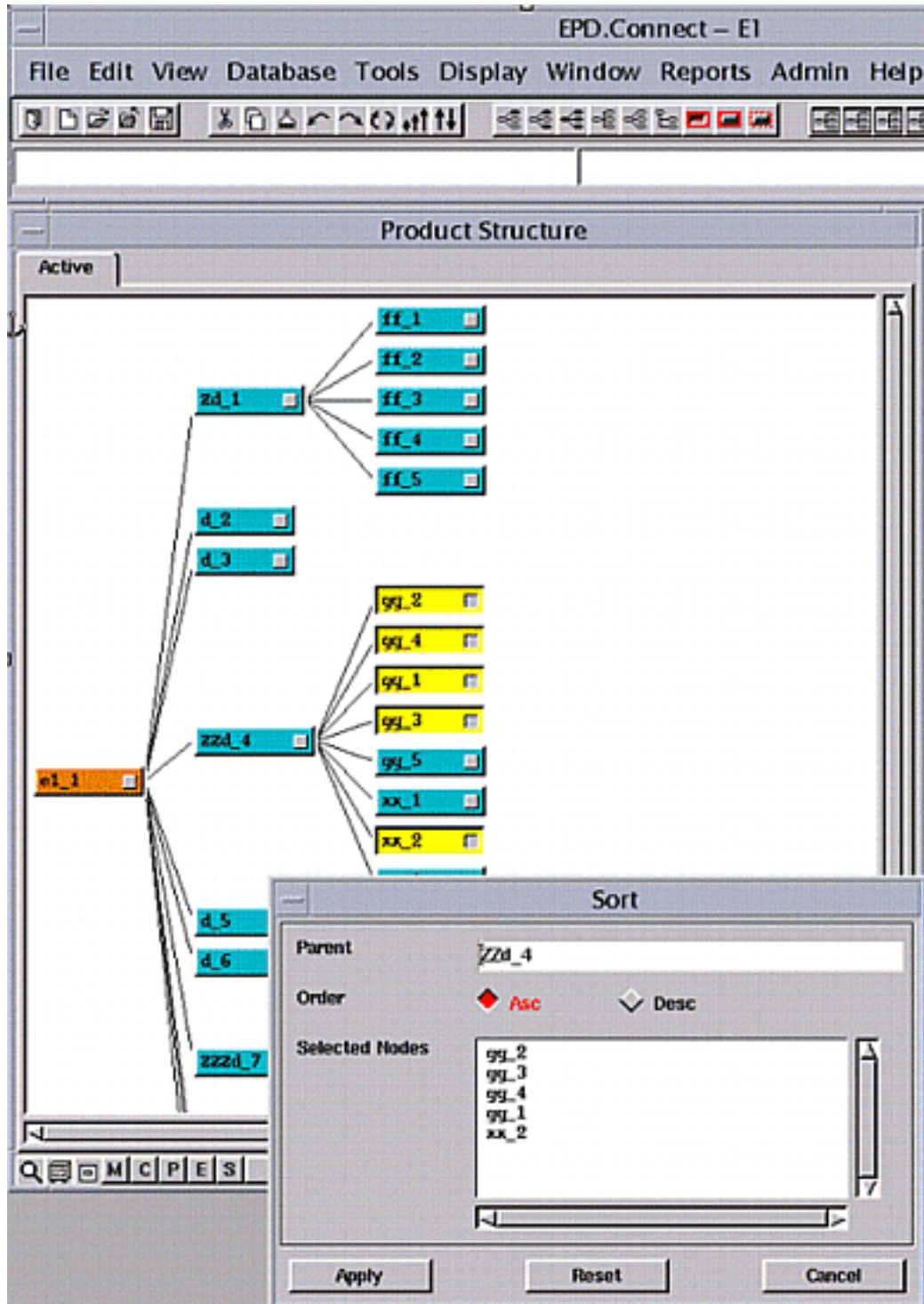
## Sorting the Product Structure Nodes

The nodes in an existing product structure can now be reordered using Edit > Reorder > Sorting.

- Reordering works both in Structure mode as well as Assembly mode.
- You can select any number of nodes belonging to the same parent and reorder them in the ascending or the descending order.
- If you select nonconsecutive nodes, only the selected nodes are sorted. The position of other nodes remains unchanged.
- In the Assembly mode, if you sort components of a reference assembly that has multiple instances in the same structure, then the sort is reflected on all instances of the reference assembly.
- The selection state of the nodes before invoking the Sort dialog box is restored after sorting.



Figure 1-8 Sorting the Nodes in a Product Structure Tree



See the *EPD.Connect User Guide* for details.

## Switching the DOD

In a Distributed Vault environment, where multiple Distributed Object Directories (DOD) are configured for a particular Vault, you can dynamically switch to another DOD when the designated primary DOD is inaccessible. A new option Switch DOD is available in the Admin menu that enables you to select and switch to another DOD. See the *EPD.Connect User Guide* for details.

## Using Associative Topology Bus in Assembly Mode

You can now use the Associative Topology Bus and perform certain operations in Assembly mode.

- Set the `CADDS_ATB_ENABLED` variable to `YES` in the `epdconn.ini` file to use Associative Topology Bus in EPD.Connect.
- You can import, export, verify, and update Translated Image Model (TIM) files created from the Pro/ENGINEER and CADDSS parts and assemblies. The File menu contains the options Import, Export, Verify, and Update.

See the *EPD.Connect User Guide* for details.

## Storing Multiple Objects

You can now select multiple objects of the same application type in the Data Browser and store them.

- The user attributes and the system attributes are specified only once for all the objects that you want to store.
- Every object is stored independently, irrespective of the success or the failure of the storing of other objects.
- If a revision is not specified, all objects are stored with revision 1.
- Messages appear in the Audit/Transaction Log window to highlight the success or the failure of the store operation for the individual objects.

See the *EPD.Connect User Guide* for details.

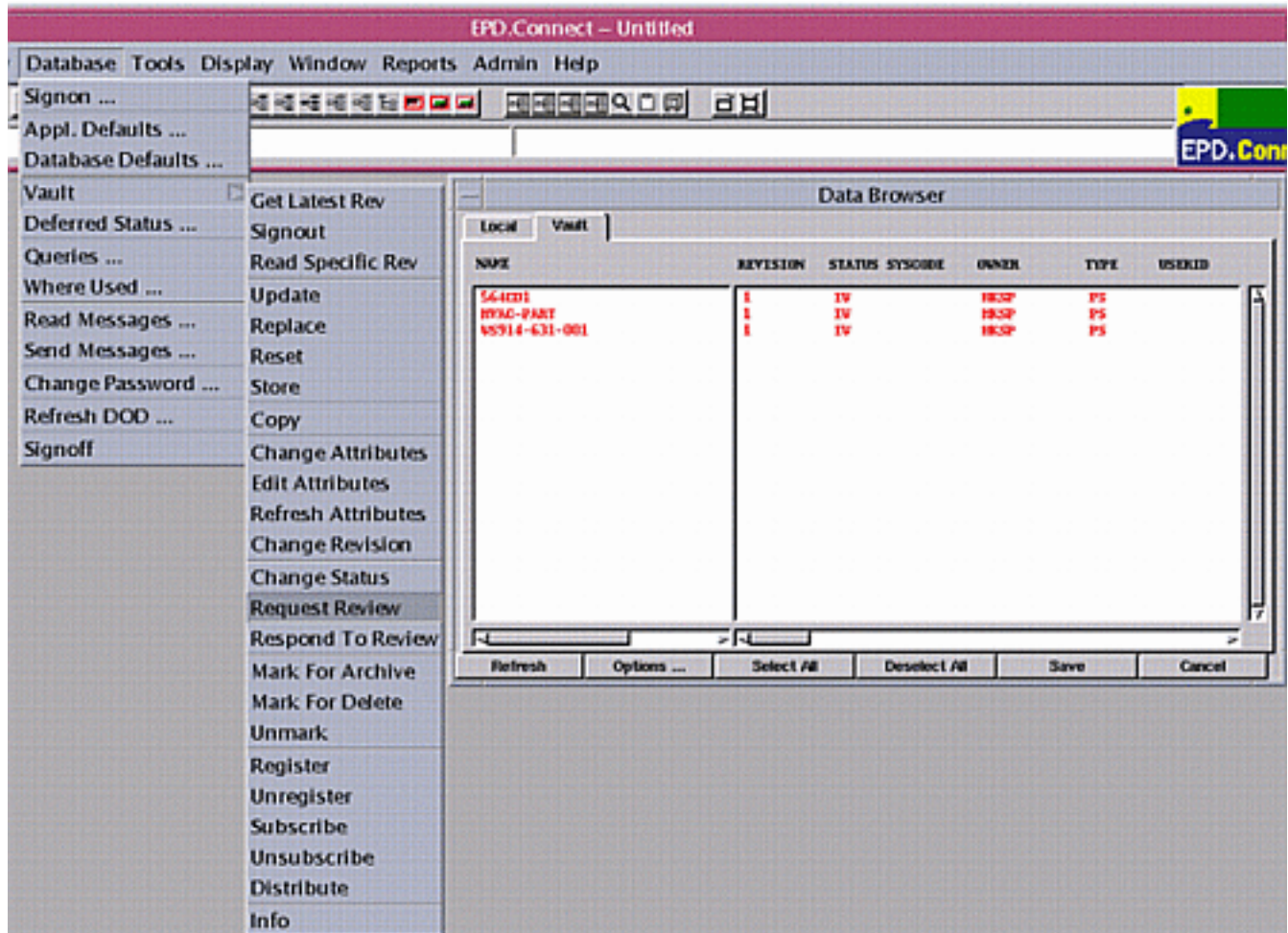
## Selecting Multiple Objects for Review and Response

You can select multiple Vault objects and send them for review with a single review comment.

- The result of the review is applied to the entire collection.
- Set a value to the `CA_REQRV_PREFIX` variable in `epdconn.ini` to define the prefix of the name of the fileset.



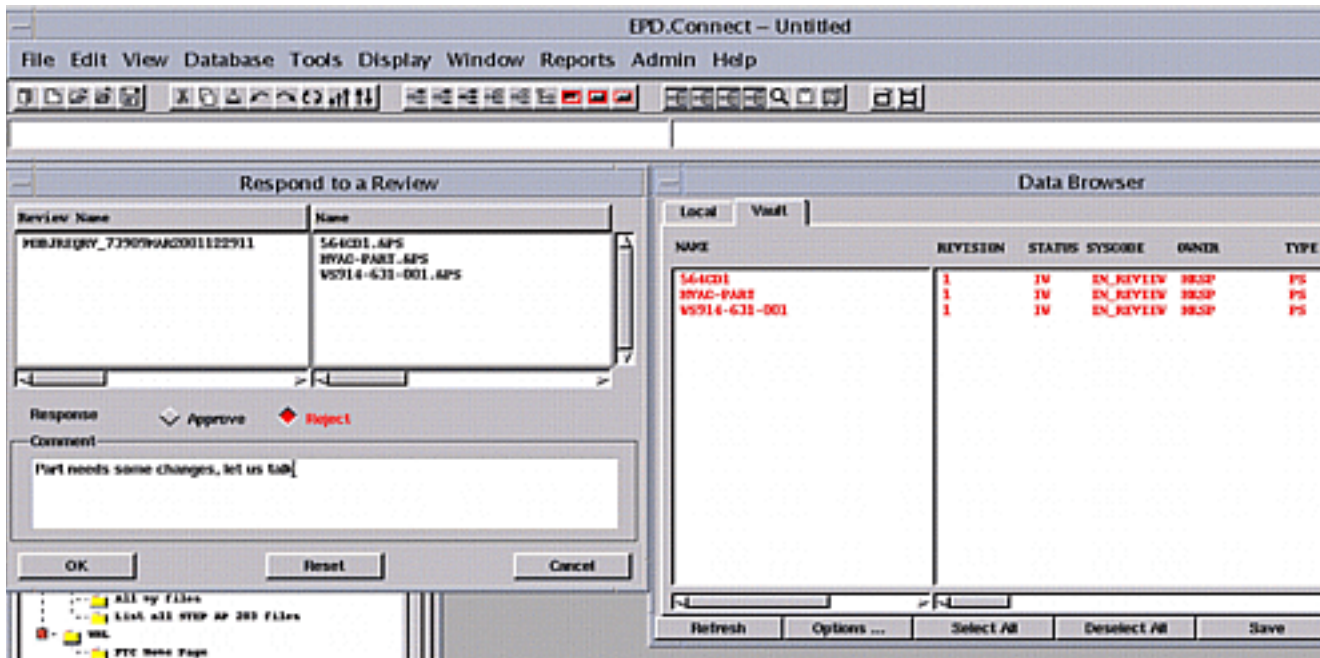
Figure 1-9 Requesting for the Review of Multiple Objects



You can also respond to a review of multiple Vault objects.

- Approval or rejection is applied to the entire collection irrespective of the selection.
- The Respond to a Review dialog box shows a split list. The Vault object under review appears on the left and the members of the collection appear on the right.

Figure 1-10 Responding to the Review of Multiple Objects



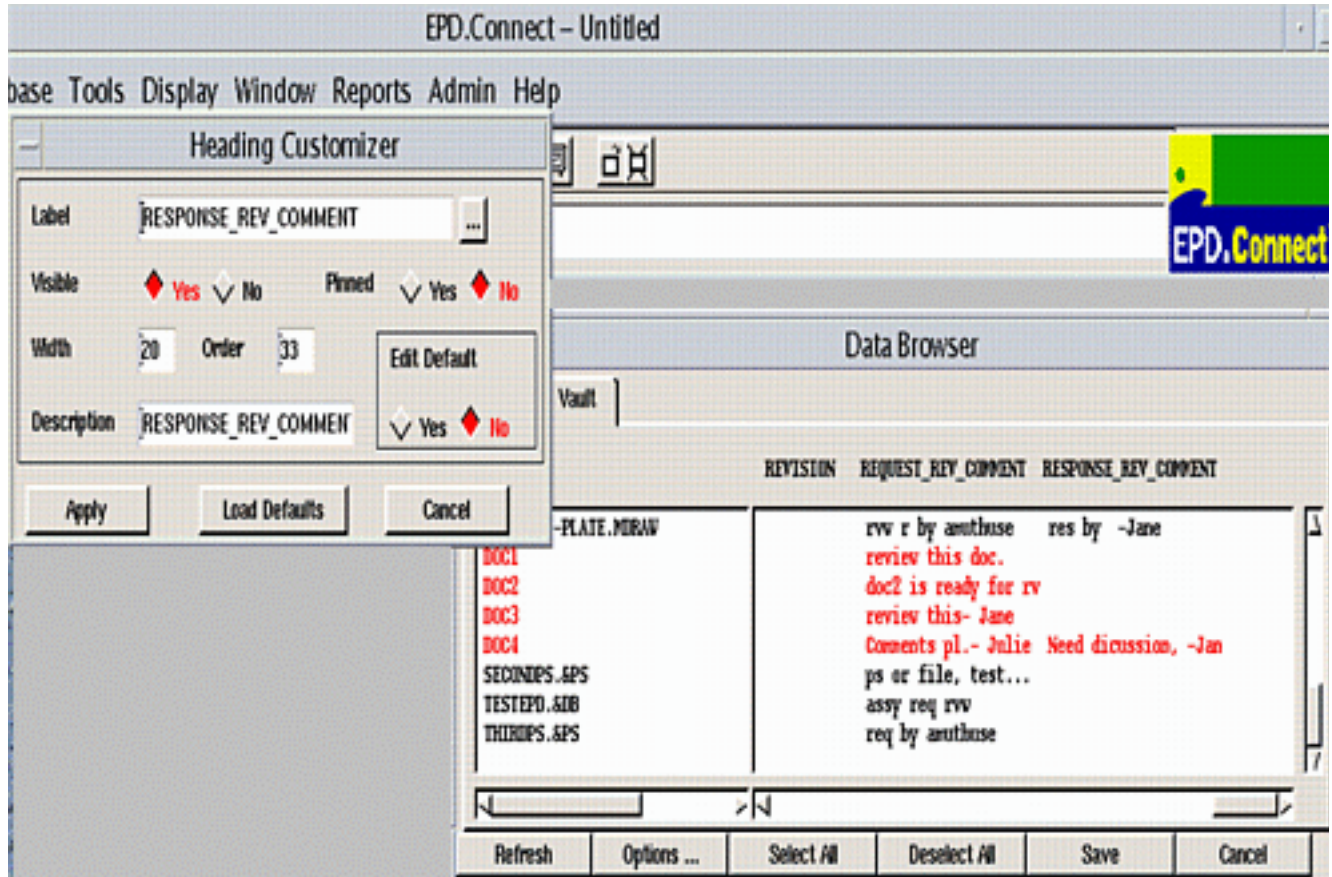
See the book *EPD.Connect User Guide* for details.

## Accessing Review Comments from the Data Browser

You can query and display the messages that appear during the requests for review and response to reviews in the Data Browser.

- You can customize information that you want to display using the Heading Customizer dialog box.

**Figure 1-11 Customizing Information Using the Heading Customizer Dialog Box**



- You can save the results of the query in the Data Browser as a text file that can be exported to any spreadsheet application for further modification.

See the *EPD.Connect User Guide* for details.

## Copying and Pasting in the Data Browser

You can now copy and paste components from the Data Browser in Structure mode as well as Assembly mode. The Paste Assemblies/Components option that has been added to the Edit menu in the Assembly mode allows you to paste the copied objects from the clipboard to the open assembly structure.

- You can select application objects from the Data Browser and copy them to the clipboard.
- You can paste the components from the clipboard to a product structure that is open.
- The components from the clipboard are pasted as child components in the product structure.

See the *EPD.Connect User Guide* for details.

## Opening and Closing Reference Components

You can now select multiple reference nodes and expand them. You can also close one or more expanded reference components. See the *EPD.Connect User Guide* for details.

## Defining Assembly Attributes and Values Externally

The assembly attributes and values can now be displayed based on values in an external file.

- The external file contains the predefined attribute list.
- The changes to the file become effective only after starting a new session.
- Set an appropriate value to the `USER_ASSY_ATTR_FILE` variable in the `epdconn.ini` file in order to point to the external file.

See the *EPD.Connect User Guide* for details.

## Selecting Nodes by the Access Indicator

You can select the product structure nodes by specifying the color of the access indicator using the Color Selection dialog box.

- The nodes can be selected by specifying the color in Structure mode as well as Assembly mode.
- The components with the same access indicator color are selected.
- A maximum of 16 colors are supported for selection.
- The `SELECT` message command is also modified with the addition of `COLOR` as one of its optional keywords.

See the *EPD.Connect User Guide* for details.

## Using Logical Operators for Highlighting or Hiding Nodes

You can now use the logical operators OR or AND while defining conditions for highlighting or displaying rules. The AND and OR options have been added to the Highlight Rules and Visibility Rules dialog boxes.

- The product structure nodes satisfying the conditions are highlighted or made invisible.
- You can combine multiple conditions using either the AND or the OR operators.

See the *EPD.Connect User Guide* for details.

## Using the Enhancements to Reporting

Reports in the Report Viewer window have the following enhancements:

- While detecting clashes, duplicate clashes will not be listed in the Report Viewer window.
- The report may be sorted to print the components with the maximum number of clashes first.
- The components and product structure nodes can have customized component names for reports.

See the *EPD.Connect User Guide* for details.

## Opening a Product Structure from the CVPATH

You can now open a product structure by specifying the CVPATH. The directory option in the Open Configuration dialog box lists CVPATH as one of its suboptions. See the *EPD.Connect User Guide* for details.



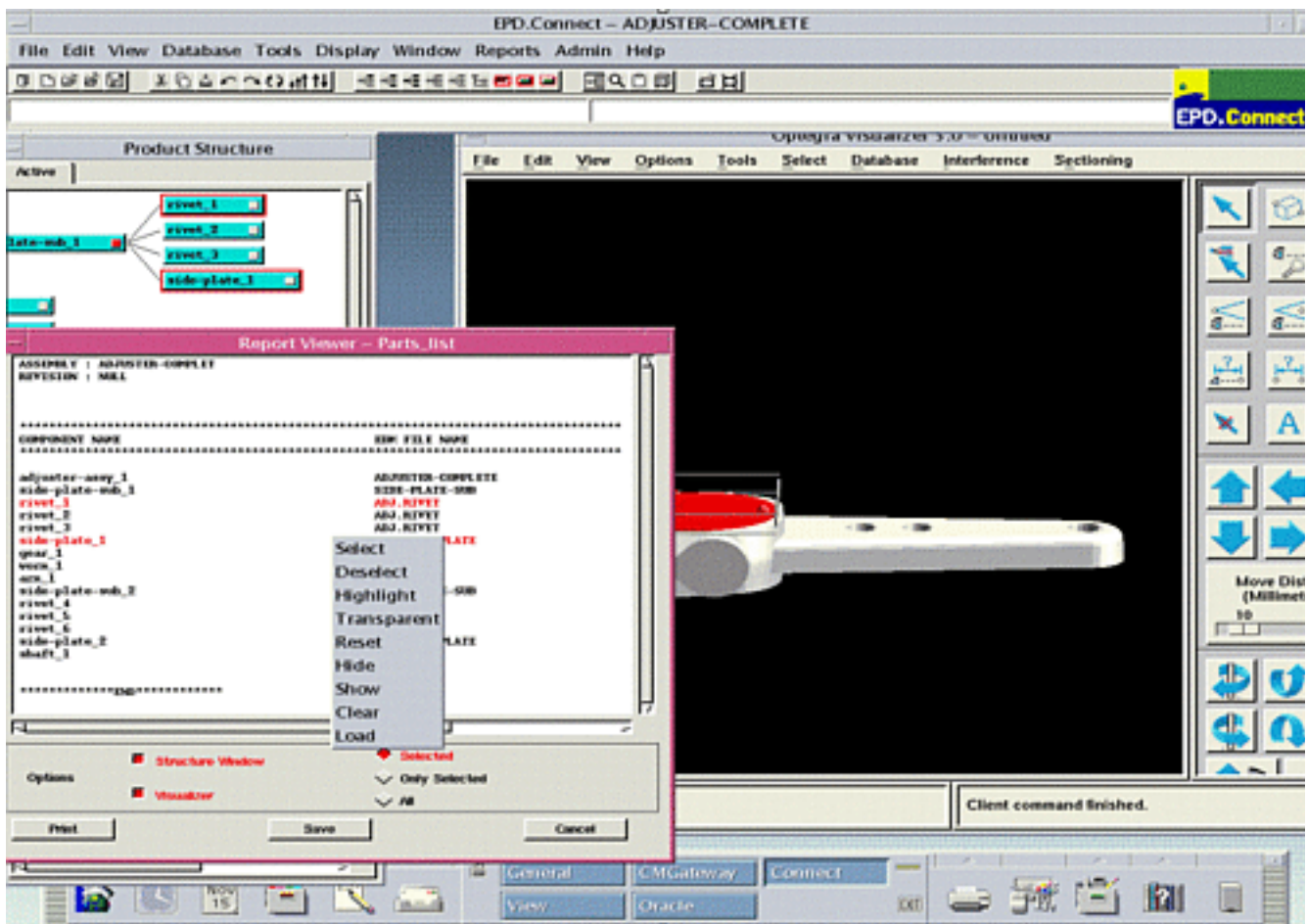
## EPD.Visualizer

Enhancements to EPD.Visualizer are described in the next few sections.

### Interacting with the Report Viewer Window

The Visualizer option in the Report Viewer window allows you to interact with the EPD.Visualizer. See “Interacting with the Product Structure Window” on page 1-10 for details.

**Figure 1-12 Interaction Between the Report Viewer Window and EPD.Visualizer**

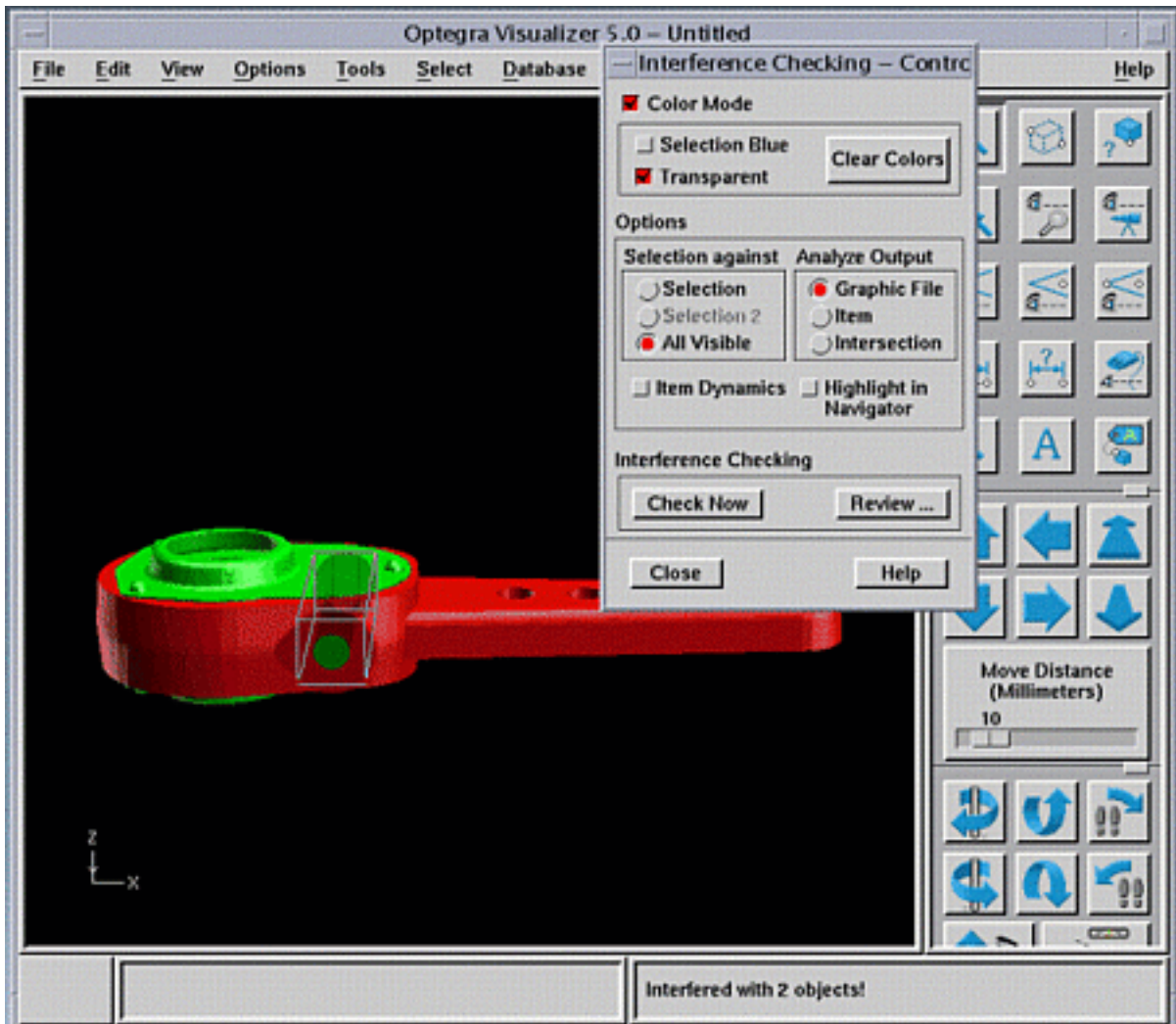


See the *EPD.Connect User Guide* for details.

## Making Selected Objects Transparent

Using the option Selected Transparency in the Interference Checking Control window, you can make the selected parts transparent to enable interference checking.

Figure 1-13 Interference Checking



See the *EPD.Visualizer User Guide* for details.

## Selecting, Scrolling, and Running a Report

The selecting and scrolling functionalities can now run custom reports.

- Set an appropriate value to the variable `PVS_SELECT_SCROLL_REP` in the `explorer.ini` file to enable the report running feature.
- Set an appropriate value to the variable `CA_ENV_REPORT` to specify the report to be run.

## Information Browser

The Information Browser has the new features as discussed in the next sections.

### SWING Tree Component

The new SWING tree component improves navigation in the Information Browser.

### Detecting a Change in the DOD

You can now detect a change in DOD from EPD.Connect, while traversing the Vault folders with Query DV Objects enabled. To detect the change in DOD, set the `dodDetectionTimeInterval` preference in the [General] section of the `vault.ini` file. See the *Information Browser User Guide* for details.



## EDMOSRV

Bind variable support is the new feature that is available for the Vault functionality. You can query bind variables at the client end of the `edmosrv` library. The following function has been added to support querying of the bind variables:

```
EDM_O_STAT edm_o_bindquery(char *query, char *bindvalue1, char  
*bindvalue2, ..., char *0, EDM_O_HANDLE *hand, char *msg)
```

A maximum of 64 bind variables are supported in the query. See the *Vault Programmer Guide* for details.

# AccessWare

The following sections discuss the new features available in AccessWare for Release 6.

## Cut, Copy, and Paste Operations

The cut, copy, and paste operations are now supported for QTEXT on the UNIX platform. You can copy data from QTEXT to the clipboard and paste it to another text widget. See the book *AccessWare User Guide* for details.

## Drag-and-Drop Operations

The drag-and-drop operations are now supported for QTEXT on the UNIX platform. See the book *AccessWare User Guide* for details.

## QTEXT and QLIST Linking

The QTEXT and the QLIST widgets can be linked in order to enable the key input based on scrolling. This is enabled by specifying the value 1 to the variable `AW_QUERY_ON_TEXT` in the `epdconn.ini` file. The widgets can be linked through resource files. You can scroll the connected list to the item beginning with the key input on the QTEXT widget. See the books *AccessWare User Guide* and *AccessWare Function Reference* for details.

## Scrolling a List

AccessWare now supports the scrolling of a list based on the key input. This is enabled by specifying the value 1 to the variable `AW_QUERY_ON_LIST` in the `epdconn.ini` file. The key input scrolls to the item beginning with the key. The next input begins the search from that position onward. See the book *AccessWare User Guide* for details.