

CADDS[®] 5 15.0 Release Notes

February 2008

Copyright © 2007 Parametric Technology Corporation. All Rights Reserved.

User and training guides and related documentation from Parametric Technology Corporation and its subsidiary companies (collectively "PTC") is subject to the copyright laws of the United States and other countries and is provided under a license agreement that restricts copying, disclosure, and use of such documentation. PTC hereby grants to the licensed software user the right to make copies in printed form of this documentation if provided on software media, but only for internal/personal use and in accordance with the license agreement under which the applicable software is licensed. Any copy made shall include the PTC copyright notice and any other proprietary notice provided by PTC. Training materials may not be copied without the express written consent of PTC. This documentation may not be disclosed, transferred, modified, or reduced to any form, including electronic media, or transmitted or made publicly available by any means without the prior written consent of PTC and no authorization is granted to make copies for such purposes.

Information described herein 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. It may not be copied or distributed in any form or medium, disclosed to third parties, or used in any manner not provided for in the software licenses agreement except with written prior approval from PTC.

UNAUTHORIZED USE OF SOFTWARE OR ITS DOCUMENTATION CAN RESULT IN CIVIL DAMAGES AND CRIMINAL PROSECUTION.

For Important Copyright, Trademark, Patent, and Licensing Information: For Windchill products, select About Windchill at the bottom of the product page. For InterComm products, on the Help main page, click the link for Copyright 2007. For other products, select Help > About on the main menu for the product.

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) (OCT'95) or DFARS 227.7202-1(a) and 227.7202-3(a) (JUN'95), and are provided to the US 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 (OCT'88) or Commercial Computer Software-Restricted Rights at FAR 52.227-19(c)(1)-(2) (JUN'87), as applicable. 02202007

Parametric Technology Corporation, 140 Kendrick Street, Needham, MA 02494 USA

Table of Contents

Preface

Related Documents	vii
Book Conventions	vii
Window Managers and the User Interface	viii
Online User Documentation	viii
Online Command Help	ix
Printing Documentation	x
Resources and Services	x
Documentation Comments	x

System Considerations

What's New in CADD5 15.0	1-2
Web Sites	1-3
Accessing Open or Resolved Issues	1-3
Browser Settings for Java and Online Help	1-4
CADD5 and Optegra Compatibility	1-5
XML Parser	1-6
Supported Oracle Versions — UNIX	1-7
Setting Up the New License File	1-8
Commands for Obtaining Host IDs	1-8

Tips

General CADD5 _____	2-2
Windows XP _____	2-2
DATASHOP GUI for the IGES Translator _____	2-2
CVMAC _____	2-3
CVMAC ACTPRT Command _____	2-3
CVMAC CALLF Functions _____	2-3
UNIX Format for Text Files _____	2-3
Interactive Surface Designing _____	2-4
CADD5 Database _____	2-5
Part Mode (Multipart Access) _____	2-5
Assembly Mode _____	2-5
CADD5 on Windows _____	2-6
Installing CADD5 15.0 on Windows _____	2-6
Removing the Previous Version of CADD5 _____	2-6
Installing CADD5 15.0 _____	2-6
Functionality Supported on Windows _____	2-6
Parametric Modeling _____	2-6
Explicit Modeling _____	2-7
Databases _____	2-7
Assembly _____	2-7
CVNC _____	2-7
General _____	2-7
New APIs to Support _____	2-8
AEC Shipbuilding _____	2-8

Considerations

Graphics _____	3-2
Explicit Single Window Rendering Support _____	3-2
Selection Sequence for Multiple Entities _____	3-3
Customization Files in the New Explicit SWR Environment _____	3-3
Quality of Translucency _____	3-3
Routed Systems _____	3-6

Exporting Duct Lines and Cableways to External Database Tables _____	3-6
GETDATA Modifiers for ROUTE PIPE and ROUTE DUCT _____	3-6
REVISE NLINE Command _____	3-6
CVNC _____	3-8
GPOST for CADD5 5 _____	3-8
Constraints for the SURFINT5 Command _____	3-9
SHADE TOOL Command _____	3-9
Revision Control for Figures _____	3-9
Interactive View Controls _____	3-9
Smash Entity _____	3-10
Database Migration _____	3-11
Retired Products _____	3-12
CVGP II _____	3-12

Preface

CADD5 15.0 Release Notes include:

- System Considerations for UNIX and Windows
- Tips
- Considerations

Related Documents

The following documents may be helpful as you use *CADD5 15.0 Release Notes*:

- *Installing CADD5 5*
- *CV-DORS User Guide*
- *What's New in CADD5 15.0*
- *Using the License Manager*

Book Conventions

The following table illustrates and explains conventions used in writing about CADD5 applications.

Convention	Example	Explanation
Menu selections and options	List Section option, Specify Layer field	Indicates a selection you must make from a menu or property sheet or a text field that you must fill in.
User-selected graphic location	X, d ₁ or P1	Marks a location or entity selection in graphic examples.
User input in CADD5 text fields and on any command line	<code>cvaec.hd.data.param</code> <code>tar -xvf /dev/rst0</code>	Enter the text in a CADD5 text field or on any command line.

Convention	Example	Explanation
System output	<code>Binary transfer complete.</code>	Indicates system responses in the CADDs text window or on any command line.
Variable in user input	<code>tar -cvf /dev/rst0 filename</code>	Replace the variable with an appropriate substitute; for example, replace filename with an actual file name.
Variable in text	<code>tagname</code>	Indicates a variable that requires an appropriate substitute when used in a real operation; for example, replace tagname with an actual tag name.
CADDs commands and modifiers	<code>INSERT LINE TANTO</code>	Shows CADDs commands and modifiers as they appear in the command line interface.
Text string	<code>"SRFGROUPA" or 'SRFGROUPA'</code>	Shows text strings. You must enclose text string with single or double quotation marks.
Integer	<code>n</code>	Supply an integer for the <i>n</i> .
Real number	<code>x</code>	Supply a real number for the <i>x</i> .
#	<code># mkdir /cdrom</code>	Indicates the root (superuser) prompt on command lines.
%	<code>% rlogin remote_system_name -l root</code>	Indicates the C shell prompt on command lines.
\$	<code>\$ rlogin remote_system_name -l root</code>	Indicates the Bourne shell prompt on command lines.

Window Managers and the User Interface

According to the window manager that you use, the look and feel of the user interface in CADDs can change. Refer to the following table:

Look and Feel of User Interface Elements

User Interface Element	Common Desktop Environment (CDE) on Solaris and HP	Window Manager Other Than CDE on Solaris, HP, and Windows
Option button	ON — Round, filled in the center OFF — Round, empty	ON — Diamond, filled OFF — Diamond, empty
Toggle key	ON — Square with a check mark OFF — Square, empty	ON — Square, filled OFF — Square, empty

Online User Documentation

Online documentation for each book is provided in HTML if the documentation CD-ROM is installed.

You can view the online documentation in the following ways:

- From an HTML browser
- From the Information Access button on the CADDs desktop or the Local Data Manager (LDM)

Please note: The LDM is valid only for standalone CADDs.

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,
 /usr/apl/cadds/data/html/htmldoc/ (UNIX)
 Drive:\usr\apl\cadds\data\html\htmldoc\ (Windows)
2. Click `mainmenu.html`. A list of available CADDs documentation appears.
3. Click the book title you want to view.

From the Information Access Button on the CADDs Desktop or LDM:

1. Start CADDs.
2. Choose Information Access, the `i` button, in the top-left corner of the CADDs desktop or the LDM.
3. Choose DOCUMENTATION. A list of available CADDs documentation appears.
4. Click the book title you want to view.

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)

Online Command Help

You can view the online command help directly from the CADDs desktop in the following ways:

- From the Information Access button on the CADDs desktop or the LDM
- From the command line

From the Information Access Button on the CADD5 Desktop or LDM:

1. Start CADD5.
2. Choose Information Access, the *i* button, in the top-left corner of the CADD5 desktop or the LDM.
3. Choose COMMAND HELP. The Command Help property sheet opens displaying a list of verb-noun combinations of commands.

From the Command Line: Type the exclamation mark (!) to display online documentation before typing the verb-noun combination as follows:

```
#01#!INSERT LINE
```

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:

- `/usr/apl/cadds/data/html/pdf/doc_number.pdf` (UNIX)
- `CDROM_Drive:\usr\apl\cadds\data\html\pdf\doc_number.pdf` (Windows)

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`.

System Considerations

This chapter provides system considerations for CADD5 15.0 in the following areas:

- What's New in CADD5 15.0
- Web Sites
- Browser Settings for Java and Online Help
- CADD5 and Optegra Compatibility
- XML Parser
- Supported Oracle Versions — UNIX
- Setting Up the New License File

What's New in CADD5 15.0

You can view the What's New document in HTML format in the new Java HTML browser.

If you have an old `.caddsrc-local` file, set the variable `CADD5_SHOW_WHATS_NEWnn` to `yes` in the `.caddsrc-local` file to see what is new in CADD5 15.0. The value of `nn` is replaced by the current release number. The variable is set as follows:

```
setenv CADD5_SHOW_WHATS_NEWR15 yes
```

Web Sites

The Web site for Parametric Technology Corporation is www.ptc.com.

Accessing Open or Resolved Issues

To search and view reported issues that are specific to a release, follow these steps:

1. Access www.ptc.com/support/support.htm.
2. Search for Technical Application Notes under Search the Knowledge Base or Track Technical Application Notes (TAN).

To access the search tool, you must have an account with PTC. To open an account, go to www.ptc.com/support/support.htm, and click sign up here, or call PTC Customer Service. For details on PTC Customer Service worldwide, see www.ptc.com/company/contacts/tech_support.htm.

Browser Settings for Java and Online Help

Before using the HTML online documentation, enable Java and JavaScript in your browser preferences. With these settings, you can use the Main Menu, Contents, Index, Search, and Reset commands in the navigator panel of the HTML online Help.

CADD5 and Optegra Compatibility

EPD-Enabled CADD5 5 for 15.0 works only with Optegra Release 15.0 and not with the earlier Optegra releases.

XML Parser

CADDS uses XML parser software in C++ and Java developed by the Apache Software Foundation (www.apache.org/). Source and binary codes for the software can be found at xml.apache.org.

Supported Oracle Versions — UNIX

For CADD5 15.0, Oracle 10g Release 2 (10.2.0.3.0) is supported on all platforms.

Setting Up the New License File

You must set up a license file for revision 10 of the License Manager before running CADD5. The new *FLEXlm* license daemons work with the current license files.

Commands for Obtaining Host IDs

To obtain the host ID on an HP platform, type the following command:

```
echo `uname -i` 160 p | dc (754380)
```

This chapter provides tips for working efficiently in CADD5 15.0 in the following areas:

- General CADD5
- CVMAC
- Interactive Surface Designing
- CADD5 Database
- CADD5 on Windows

General CADD5

Windows XP

On Windows XP, if the splash screen is not visible and the following error message appears in the startup session, ignore the error. CADD5 5 starts successfully.

```
Exception in thread "main" java.lang.NpClassDefFoundError::
```

DATASHOP GUI for the IGES Translator

When you start the IGES translator, the DATASHOP GUI for CADD5 5 Release 15.0 on Windows displays the following error message:

```
Error: Can't open display: system:0.0
```

To avoid this error, load the Xserver from the CADD5 5 CD-ROM and start Hummingbird's Exceed X Server before starting the DATASHOP GUI on Windows.

The Xserver environment is required for the DATASHOP GUI to function.

CVMAC

CVMAC ACTPRT Command

When issuing the ACTPRT (Activate Part) command from CVMAC, the Activate Old or New Drawing menus are not displayed. You must use the ACTDRA (Activate Drawing) command after an ACTPRT command in CVMAC to activate an old or new drawing.

CVMAC CALLF Functions

When using the CALLF function in CVMAC, use the `charconvtosys()` function to convert a character string to a system-specific character string. Similarly, use the `charconvfromsys()` function to convert a system-specific character string to a character string format.

UNIX Format for Text Files

Text files created using CVMACS on CADD5 15.0 on Windows are created in the DOS format, which is not compatible with CVNC programs. Set the following environment variable in the `.caddsrc-local` file to convert these text files to the UNIX format.

```
NT_TXTOUT_FORMAT UNIX
```

Interactive Surface Designing

Nsurfaces created with degree 3 in the u-direction and v-direction in CADD5 Releases 9, 10, and 11 may fail to regenerate in CADD5 Release 15.0. In such cases, edit the command used for creating the surface and create these surfaces again in CADD5 15.0.

CADD5 Database

A View Part entity (entity 90) added to the database for the HLR and CAMU modules can cause an increase in database size. It can also cause database fragmentation when several View On or Off operations are performed. You can avoid filing the View Part entity into the database both in the Part mode and Assembly mode in CADD5 5i Release 12 and later.

Part Mode (Multipart Access)

Run the VIEW PART OFF ALL command before saving and quitting the part in Multipart access. This removes all View Part entities from the database. Run the CHECK DBASE command to pack the database and remove fragmentation. You can then save the checked part.

Assembly Mode

Use the FILE & EXIT command from the top menu bar. If you save and quit the assembly separately by selecting the FILE ASSEMBLY command followed by the QUIT & EXIT command, the View Part entity is filed in the database.

CADD5 on Windows

Installing CADD5 5 15.0 on Windows

This section describes the following procedures:

- Removing the Previous Version of CADD5
- Installing CADD5 5 Release 15.0

Removing the Previous Version of CADD5

Follow the procedure below before you install CADD5 5 15.0 on a windows-based computer on which a previous version of CADD5 is installed.

1. Uninstall the following applications in the order listed, using the Add/Remove Programs option on the Control Panel.
 - CADD5 5i
 - MKS Platform Components
 - Hummingbird Exceed 3D
 - Hummingbird Exceed

Installing CADD5 5 15.0

Perform the following procedure to install CADD5 5 15.0.

1. Disable any firewalls running on the computer.
2. CADD5 5 15.0 includes a new version of the Xserver. You must install both CADD5 5 and the X Server from the CADD5 5 15.0 CD-ROM.

Functionality Supported on Windows

This release of CADD5 provides the following capabilities on Windows:

Parametric Modeling

- Java-based Tree Navigation Tool
- ISD (Interactive Surface Design)
- Sketcher

Explicit Modeling

- Drafting and Dimensioning
- Hidden Line Removal (HLR)
- Sectioning
- Associative Topology Bus
- Physical Properties
- CVNC M2
- CVNC M3
- Basic shading
- Image design
- CGM Plotters
- Compatibility between CVMACS and CVNC

Databases

- Automatic DB Validation
- Explicit view part
- Drawing update in Parametric file part

Assembly

- Displaying a CAMU assembly tree
- CAMU — Java-based assembly tree

CVNC

- T2, M2, M3, M3, M5
- CVGPPII support

General

- JDK version 1.5 and MKS operating environment
- CADD5 5 ISSM
- Enhanced mouse dynamics
- Setting layer colors automatically
- Using additional commands in the text window

- Maximum instances of an active part for viewing
- Importing Explicit entities into Parametric environment

New APIs to Support

- CV-DORS
- CADD5 5 ISSM

AEC Shipbuilding

- ASM (Advanced Structural Modeling)
- Piping Modeling

Considerations

This chapter provides considerations for this release of CADD5 in the following areas:

- Graphics
- Routed Systems
- CVNC
- Database Migration
- Retired Products

Graphics

Explicit Single Window Rendering Support

The Explicit Single Window Rendering (SWR) environment enables you to shade or graphically perform hidden line removal for any surface, solid, or AEC application entity, such as pipes, structural objects, HVAC, and so on, within the same window as the traditional wireframe only representation of earlier releases of CADD5 5.

Basic Shading and HLR are provided as part of core CADD5 capability. Additional capabilities are enabled by the CADDShade II license. Some of these capabilities were provided through the separate Picture Window previously enabled by the CADDShade II license.

The rendering is performed using new commands, details of which are available in *What's New in CADD5 5 15.0, Explicit Modeling User Guide and Menu Reference*, and the *CADD5 SHADE User Guide*.

The Explicit SWR capability is a result of the completion of the two-phase project started in CADD5 5i Release 14 that was initiated to replace the previous Explicit graphics engine with a single and consistent graphics environment between the Explicit and Parametric environments.

The Explicit SWR capability is available to all customers with CADD5 5 Drafting or Modeling packages. Some rendering capabilities that were available in the CADD5 5i Release 14 base package, such as Change Renderview, and additional capabilities are only available to customers with CADDShade II licenses.

Please see, *Database Policies and Procedures* to understand how to correctly migrate parts, figure libraries, and drawing forms from earlier releases of CADD5 5, either manually or using the tools provided for the migration.

The correct workflow to migrate old databases and the requisite tool is as follows:

1. Drawing forms - Update manually.
2. Library figures, starting with the lowest level figure for nested figures - Use `update_fig`.
3. All parts including standard library parts that are not figures - Use `update_gr`.
4. Assemblies - Use `update_gr`.

Selection Sequence for Multiple Entities

In CADD5 15.0, when you select multiple entities in the explicit environment using WIN, PWIN, VWIN, or CHAIN as the selection modifier, the entities may not be selected in the same sequence as they were selected in the previous releases of CADD5. For example, when you select multiple edges for applying fillets using the FILLET NSURFACE command, the fillets may not be applied to the selected edges in the same sequence in CADD5 15.0 as in earlier releases of CADD5.

As a result, the executable files created in an earlier release of CADD5 may produce different results in CADD5 15.0, if they use any of the modifiers to select multiple entities in the Explicit environment. You must, therefore, update these executable files in CADD5 15.0.

Customization Files in the New Explicit SWR Environment

You may notice slight differences in the location of the pixels representing the graphical location of entities in the new graphics system used by CADD5 15.0 compared with the old graphics system used in earlier releases.

Consequently any customization tools such as journal files, execute files, and CVMAC's that digitize a location on the screen may not find the expected entity, or may miss it altogether, depending on the accuracy of the original stored location. It is therefore necessary to update any such customization files that use digitized locations for entity selection. This variance of the entity location is only graphical; the entity representation in the database remains unchanged.

This variance occurs only to digitized locations; selection using entity tag names applied programmatically will function as earlier. Selection using entity tag names is the recommended method for ensuring reliable entity selection.

Quality of Translucency

To set the quality of rendering for translucent objects in the graphics window, use the SELECT GRAPHSHADE command along with the following modifiers:

- BASIC—Performs a simple reduction of color depth for applying translucency to the selected objects, allowing you to interactively work with parts and assemblies. This is the default setting.
- ADVANCED—This sophisticated method renders the various elements of the objects selected for applying translucency and determines the varying levels of opacity for the overlying surfaces or objects. This option produces images of a higher quality. However, it is compute-intensive and is not recommended for interactively working with parts and assemblies or for use on low-performance systems.

Alternatively, you can select Basic or Advanced from the Translucency Quality option list in the Shading Setup property sheet.

Figure 3-1 Translucency Quality - Basic



Figure 3-2 Translucency Quality - Advanced



Routed Systems

Exporting Duct Lines and Cableways to External Database Tables

You can export duct lines or cableways and their attributes to external database tables. This functionality is now enhanced to support new cross section shapes of the duct lines (flat oval, quarter circle, and rectangular cutoff) and cableways (rectangular cutoff, trapezoidal, and circular), resulting in a structural change in the corresponding database tables.

If you had created parts that export data to these tables using an earlier release of CADD5 5, you must update these tables by running the following scripts before using the same parts in CADD5 5 15.0:

- `/cadds/src/data/cvaec/hvac/scripts/updt_d_elm_tab.sh` (for ductline)
- `/cadds/src/data/cable/scripts/updt_sgt_tab.sh` (for cableway)

Please note: The existing data in the tables is not lost when you update the tables by running these scripts.

GETDATA Modifiers for ROUTE PIPE and ROUTE DUCT

CADD5 5 15.0 onward, when routing a pipe line or duct line, the get data location modifiers such END, ORG, POI, and VERT are retained after each selection and you need not reenter them unless you change the modifier. Therefore the executable files that use these modifiers may not work on CADD5 5 15.0 if created using an earlier release of CADD5.

REVISE NLINE Command

When you run the REVISE NLINE MIRROR command on a quarter circular or rectangular cut-off duct line with quarter circular or rectangular cut-off fittings, some orientation discrepancies may occur. Perform one of the following procedures to mirror the duct line with the correct orientation:

Procedure I

1. Delete all the quarter circular and rectangular cut-off fittings in the duct line.
2. Run the REVISE NLINE MIRROR command.
3. Change the duct line orientation as required.
4. Insert the deleted fittings again.

Procedure II

1. Create duct line spools such that the quarter circular and rectangular cut-off duct lines are in spools different from the remaining duct lines.
2. Run the REVISE NLINE MIRROR command on the spools that do not contain quarter circular and rectangular cut-off duct lines.
3. Manually create the mirrored versions for the quarter circular and rectangular cut-off duct lines.

Similarly, orientation discrepancies may occur when you mirror the viewed components in CAMU using the MIRROR COMPONENT GRAPHICAL YES command, if the viewed components contain quarter circular or rectangular cut-off duct lines with quarter circular or rectangular cut-off fittings. Perform one of the above procedures to mirror the viewed component with the correct orientation.

CVNC

GPOST for CADD5 5

The GPOST for CADD5 5 postprocessor provides a complete solution for the generation of Machine Control Data (MCD) from CVNC CLFiles, for NC machine tools. You can install GPOST while installing CADD5 5.

GPOST uses the binary version of the CLFile and an option file to generate an MCD file. The MCD file has the same filename as the CLFile and the `.tap` extension. The option file stores the postprocessing options required for the NC machine. GPOST reads the option file and configures GPOST's internal variable table before reading the CLFile. This allows you to configure GPOST for your NC machine.

Using GPOST: Perform the following steps before using GPOST:

1. Set the `PRO_DIRECTORY` environment variable to the path of the GPOST executable file. For example,
2. Set the `MC` environment variable to the type of the computer on which you are creating the option file. For example, for Sun Solaris, type

```
setenv PRO_DIRECTORY <loadpoint>/usr/apl/cad
```

```
setenv MC sparc_5
```

Run GPOST using the following command:

```
cvgpost <absolute path to the CLFile> <option file>
```

GPOST creates the MCD file in the directory in which the CLFile exists.

Creating an Option File: In addition to the available standard option files, you can create your own files specific to your NC machine. To create your own files, perform the following steps.

1. Run the following command:

```
$PRO_DIRECTORY/$MC/obj/optfile -sy:2
```

The Option File Generator appears.
2. Set the options for your NC machine and create the option file. For details, see the *G-Post Reference Manual*.
3. Set the `POST_DIR` environment variable to the directory containing the generated option file.

When you now run GPOST, you can use the generated option file.

Constraints for the SURFINT5 Command

The following list outlines the constraints when using the SURFINT5 command for surface intersection machining in CVNC-M5:

- Collision checking is not available.
- When using flat-end or corner-radius tools to machine flat or convex surfaces, it is not always possible to predict the location of a contact point on the flat surface area. This can result in a rocking motion of the tool during machining. The part surface is not gouged, but the surface finish may suffer.
- The DEFRET4 and DEFPLUN4 commands do not work with the SURFINT5 command. Use the DEFPLUN5 and DEFRET5 commands with the SURFINT5 command.

Please note: The features and constraints mentioned in Chapter 10, “Machining Surface Intersections,” of the *CVNC-M5 User Guide* apply only to the SINTCUT4 command and not to the SURFINT5 command. The SURFINT5 command is discussed only in Chapter 9, “Surface Intersection Machining.”

SHADE TOOL Command

The SHADE TOOL command is currently not supported for fastening tools.

Revision Control for Figures

CADDS 5 15.0 onward, you cannot insert a figure into a CADDS part, if the figure is created using a newer release of CADDS. For example, if you are using CADDS 5 15.0, you cannot insert a figure created using CADDS 5 16.0 or later.

However, you can insert figures created in maintenance releases. For example, if you are using CADDS 5 15.0, you can insert a figure created using any CADDS 5 15.0 maintenance release.

Earlier releases of CADDS 5 or CADDS 4X allow you to insert figures created in CADDS 5 15.0 or later. This is because the earlier releases do not check for the release number. However, as CADDS does not support backward compatibility, PTC does not recommend inserting such figures in Release 14 or earlier as it may corrupt the part database.

Interactive View Controls

The Interactive View Controls toolbar now combines the spaceball and mouse dynamics with rendering options. This new feature provides useful view manipulation tools such as rotation, translation, scaling, and scrolling. You can use

these options in various constrained modes allowing you to manipulate the view with respect to a specific axis.

The rendering tools on this toolbar include shading, translucency, and hidden line removal. This toolbar allows you to switch individual views between wireframe, fully shaded, or translucent rendering. These tools can help better visualization of complex geometries and assemblies and help you work faster and more efficiently.

You can use the middle mouse button to rotate a view. You can also zoom and translate a view using the middle mouse button along with a combination of CTRL and SHIFT keys, respectively.

You can now continuously scroll a drawing and move the entire drawing to any side of the screen using the spaceball or mouse.

Smash Entity

The total number of entities that can be created after smashing has been increased along with the entity limit for a part. Double-precision CADD5 4X parts now have an entity limit of 262,144. CADD5 also allows you to select a Cplane to smash the entities onto. The SMASH ENTITY command provides an option to retain layers of respective entities after smashing.

Database Migration

When migrating to a new release of CADD5, it is important to establish a baseline of part validity for parts and figures from earlier releases. It is also important to regenerate old drawing and shade files so that they are up to date with any changes in the part or graphics database. You can perform this as follows.

1. Run `validate_db` or `CHECK DBASE` on the part using the earlier release of CADD5 to ensure that the part is free of database corruption in that release.
2. Perform deletion, activation, and shading.
 - a. Delete the drawing files (TVFs and `_gr`).
 - b. Activate the part and all the drawings using the current release.
 - c. Shade the part and save it.

You can perform the above actions on a batch of parts using the `update_gr` script for parts and the `update_fig` script for figures.

3. Run `validate_db` or `CHECK DBASE` on the part after saving it using the current release to ensure that the database is clean.

Retired Products

Beginning with CADD5 15.0, the following PTC products are no longer supported:

MEDUSA interface tools on LDM	
SystemsLab	CC5-CV3350-F
PUT 3MFILM	CC5-CV5042-F
PUT GERBER	CC5-CV0322-F
GET GERBER	CC5-CV0323-F

The 3MFILM and GERBER file formats are no longer supported.

CVGP II

As previously announced, CVGP II applications are not distributed with CADD5 5 from Release 14 onward. However, you can still continue to use the CADD5 packages that previously contained CVGP II.

If you have any concerns or queries regarding these retirements, please contact PTC Technical Support or send e-mail to Marc Donoghue (med@ptc.com).