Product Version 23.1

September 2023

© 2023 Cadence Design Systems, Inc. All rights reserved.

Portions © Apache Software Foundation, Sun Microsystems, Free Software Foundation, Inc., Regents of the University of California, Massachusetts Institute of Technology, University of Florida. Used by permission. Printed in the United States of America.

Cadence Design Systems, Inc. (Cadence), 2655 Seely Ave., San Jose, CA 95134, USA.

Allegro Design Entry HDL contains technology licensed from, and copyrighted by: Apache Software Foundation, 1901 Munsey Drive Forest Hill, MD 21050, USA © 2000-2005, Apache Software Foundation. Sun Microsystems, 4150 Network Circle, Santa Clara, CA 95054 USA © 1994-2007, Sun Microsystems, Inc. Free Software Foundation, 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA © 1989, 1991, Free Software Foundation, Inc. Regents of the University of California, Sun Microsystems, Inc., Scriptics Corporation, © 2001, Regents of the University of California. Daniel Stenberg, © 1996 - 2006, Daniel Stenberg. UMFPACK © 2005, Timothy A. Davis, University of Florida, (davis@cise.ulf.edu). Ken Martin, Will Schroeder, Bill Lorensen © 1993-2002, Ken Martin, Will Schroeder, Bill Lorensen. Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, Massachusetts, USA © 2003, the Board of Trustees of Massachusetts Institute of Technology. vtkQt, © 2000-2005, Matthias Koenig. All rights reserved.

Trademarks: Trademarks and service marks of Cadence Design Systems, Inc. contained in this document are attributed to Cadence with the appropriate symbol. For queries regarding Cadence's trademarks, contact the corporate legal department at the address shown above or call 800.862.4522.

Open SystemC, Open SystemC Initiative, OSCI, SystemC, and SystemC Initiative are trademarks or registered trademarks of Open SystemC Initiative, Inc. in the United States and other countries and are used with permission.

Restricted Permission: This publication is protected by copyright law and international treaties and contains trade secrets and proprietary information owned by Cadence. Unauthorized reproduction or distribution of this publication, or any portion of it, may result in civil and criminal penalties. Except as specified in this permission statement, this publication may not be copied, reproduced, modified, published, uploaded, posted, transmitted, or distributed in any way, without prior written permission from Cadence. Unless otherwise agreed to by Cadence in writing, this statement grants Cadence customers permission to print one (1) hard copy of this publication subject to the following conditions:

- 1. The publication may be used only in accordance with a written agreement between Cadence and its customer.
- 2. The publication may not be modified in any way.
- 3. Any authorized copy of the publication or portion thereof must include all original copyright, trademark, and other proprietary notices and this permission statement.
- 4. The information contained in this document cannot be used in the development of like products or software, whether for internal or external use, and shall not be used for the benefit of any other party, whether or not for consideration.

Disclaimer: Information in this publication is subject to change without notice and does not represent a commitment on the part of Cadence. Except as may be explicitly set forth in such agreement, Cadence does not make, and expressly disclaims, any representations or warranties as to the completeness, accuracy or usefulness of the information contained in this document. Cadence does not warrant that use of such information will not infringe any third party rights, nor does Cadence assume any liability for damages or costs of any kind that may result from use of such information. Cadence is committed to using respectful language in our code and communications. We are also active in the removal and replacement of inappropriate language from existing content. This product documentation may however contain material that is no longer considered appropriate but still reflects long-standing industry terminology. Such content will be addressed at a time when the related software can be updated without end-user impact.

Restricted Rights: Use, duplication, or disclosure by the Government is subject to restrictions as set forth in FAR52.227-14 and DFAR252.227-7013 et seg. or its successor.

Contents

Desi	ign Entry HDL Known Problems and Solutions 5
	CCMPR01822494: DE-HDL-Constraint Manager on Windows 10 machines with Intel graphic cards might have display issues 5 CCMPR00885839: Modeless: Voltage property lost on delete instead of rippling the original value 7 CCMPR00850625: Modeless: Multiple properties are not editable and are not visible in Show index 8 CCMPR00788708: Netlisting errors are not highlighted when the design is upreved 8
	CCMPR00689398: Wire line is missing after RF PCB import
	CCMPR00685098: Properties that are changed cannot be restored by using the Restore Backup option 9 CCMPR00679260: Restoring block does not restore the differential pair names from the lower block 10 CCMPR00603112: Default Physical and Spacing Csets are not created in Constraint Manager connected to Design Entry HDL and System Connectivity Manager on importing a cross-section only technology file. 10 CCMPR01517312: When archiving or copying a project that has been enabled for design management, the project state is changed to read only 10 CCMPR00604263: Copying and posting a TOC component on a separatio shows
	CCMPR00604263: Copying and pasting a TOC component on a schematic shows existing TOC entries in the pasted TOC component. 11 CCMPR00305435: Some limitations in Constraint Manager connected to Design Entry HDL 15.7. 11 CCMPR00323630: A differential pair is not deleted on exiting Constraint Manager if the same differential pair is applied on more than two nets. 11 CCMPR00327311: The Bookmark panel shows the complete hierarchy even for a single page of a PDF document. 12 CCMPR00270476: Sized devices cannot be extracted into Signal Explorer 12 CCMPR01514113: Signal models assigned to components in read-only blocks are lost after relaunching DE-HDL 12

Problem: FLEXID dongle 9 is not recognized on X86 64 or EM64T systems 12	
CCMPR00208971: Plots taken in opf will not print the packaged pin-pair values 13	
CCMPR00217887: Match group inheritance becomes overridden for bits 13	
CCMPR00219676: Pin-pair with driver in top-level and receiver in lower-level block is	
<u>removed</u>	
CCMPR00225478: Image getting distorted after insert in HP	
RF-PCB Known Problems and Solutions	
CCMPR00685098: Properties that are changed cannot be restored by using the	
Restore Backup option	
CCMPR00690301: IC and discrete insertion in the layout causes RF PCB Import flow	
<u>to abort</u>	
Variant Editor Known Problems and Solutions	
CCMPR01100481: Global Quick Find feature is not working for variant views 17	
CCMPR01115970: Issues in variant dynamic overlay functionality in team designing	
17	
Problem: Limitations in Replacing Component	
Problem: Variant Editor is unable to backannotate components having the SIZE	
<u>property.</u>	

Allegro® Design Entry HDL known problems and solutions (KP&S) will be reviewed at regular intervals and updated when new issues arise. Up-to-date known problems and solutions are published on <u>Cadence Online Support</u>.

Status of Problems Reported in Earlier Releases

The following problems reported in previous releases are valid for 23.1 as well:

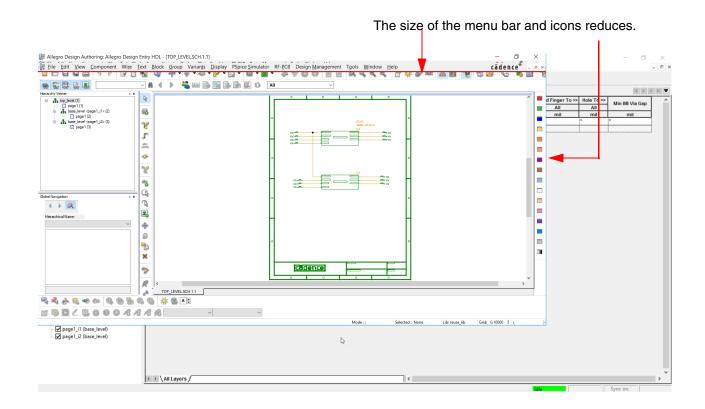
CCMPR01822494: DE-HDL-Constraint Manager on Windows 10 machines with Intel graphic cards might have display issues

Description: When Constraint Manager is launched from DE-HDL on Windows 10 machines with Intel graphic cards, you may observe some display issues. In DE-HDL for example, the menu bar appears twice and the size of the menu bar and icons reduces. In Constraint Manager, the font size of the menu bar increases, a distorted menu bar might sometimes be displayed and some dialogs show text with a higher resolution.

In the DE-HDL window



Design Entry HDL Known Problems and Solutions

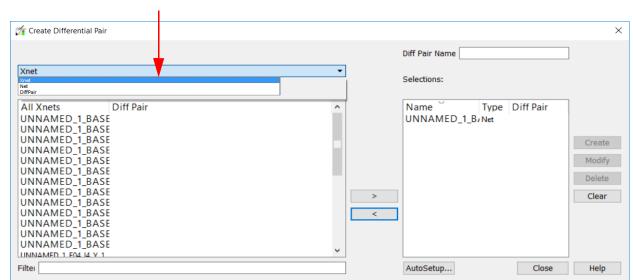


In the Constraint Manager window



The font size of the menu bar increases and a distorted menu bar might sometimes be displayed

Design Entry HDL Known Problems and Solutions



Some dialogs show text with a higher resolution.

Solution: To fix this issue, do the following:

- 1. Close Constraint Manager and DE-HDL.
- 2. Click Start and choose Cadence Release 17.2-2016.
- 3. Right-click on *Design Entry HDL*.
- **4.** Choose *More Open file location*.
- **5.** Right-click on *Design Entry HDL* and select *Properties*.
- **6.** In the Design Entry HDL Properties dialog, click the *Compatibility* tab and select the *Disable display scaling on high DPI settings* check box.
- **7.** Click *OK*.
- 8. Restart DE-HDL and launch Constraint Manager.

CCMPR00885839: Modeless: Voltage property lost on delete instead of rippling the original value

Description: Editing the voltage on a global net and then deleting the voltage on one of the nets, leads to voltage loss. For instance, consider that you have a simple design with two peer blocks MID and BLOCK1. A global signal runs through both MID and BLOCK1. Go to the MID block and edit the voltage, and save the design. You will notice that this edit change is

Design Entry HDL Known Problems and Solutions

reflected in both the blocks. Now, delete this value in MID. Save the design again and package it. You will notice that after packaging, the voltage is lost in the other block too.

Solution: Add VOLTAGE on that net again in either the block or in the root design.

CCMPR00850625: Modeless: Multiple properties are not editable and are not visible in Show index

Description: Multiple properties cannot be edited at a time in the Show index mode. For instance, add two properties on a bus and save the design. Choose the Show index mode and edit the values of both properties. Save the design. On reopening the design, only the last edit is retained. Change it back to global bus, and the property is not visible.

Solution: You can only add, delete, and edit one property at a time. For instance, if you want to change the values of the properties on a bus, edit the value of one property and save the design. Then reopen the design and edit the value of a second property and save the design again. On reopening the design, Show index will be updated with the new values.

CCMPR00788708: Netlisting errors are not highlighted when the design is upreved

Description: Netlisting errors that are reported while upreving a design are not highlighted. When you view the errors from the marker file, and highlight the errors, the marker does not point to the location of the netlisting errors.

Solution: None

CCMPR00689398: Wire line is missing after RF PCB import

Description: If two components are placed in close proximity or if there is another wire placed very close to the pin, DE-HDL attaches the SIG_NAME property to the pin when the schematic is updated because there is not enough space to draw a wire. As a result, the schematic seems to have missing pin connections after RF PCB import.

Solution: In this case, though the schematic connectivity is correct, you might want to manually draw a wire to the pin after RF PCB import.

Design Entry HDL Known Problems and Solutions

CCMPR00682028: Alignment: Object overlap is not detected

Description: The alignment operation does not detect whether objects overlap post-

alignment.

Solution: None

CCMPR00694930: DE-HDL selecting net name based on vectored boundary even after enabling font support

Description: On enabling font support, the boundary box of a net name in a vector font is reduced. When you hover the mouse pointer over the area where the original boundary box existed in a vector font, the complete net name is shown and the net name is selected when you click on it even though the original boundary of the net name is reduced.

Solution: None

CCMPR00673443: LDDP and MDDP names should not be annotated on schematic

Description: If you have DIFFERENTIAL_PAIR placeholders on schematic, the Library-Defined Differential Pair (LDDP) and Model-Defined Differential Pair (MDDP) names are annotated on the schematic.

If you rename the LDDP or MDDP name on the schematic, it is not updated in Constraint Manager.

Solution: Do not annotate or rename LDDPs or MDDPs on the schematic.

CCMPR00685098: Properties that are changed cannot be restored by using the Restore Backup option

Description: Properties are annotated through the traditional import physical flow. Backup is not done for pages that have only property updates as the RF import flow only keeps a backup of pages that have undergone connectivity changes. As a result, these pages are not restored when restoring the backup.

Solution: When you update properties on a schematic and want to restore the changes, you need to re-import the old version of the board to restore the existing values on the schematic.

Design Entry HDL Known Problems and Solutions

CCMPR00679260: Restoring block does not restore the differential pair names from the lower block

Description: If you rename a lower-level block's differential pair in the top-level design, and restore it from its definition, the differential pair name is not restored from the lower-level block.

Solution: By default, the *Restore* command does not rename a block. To change the default behavior, set the environment variable CM_MERGE_RENAME to TRUE.

CCMPR00603112: Default Physical and Spacing Csets are not created in Constraint Manager connected to Design Entry HDL and System Connectivity Manager on importing a cross-section only technology file.

Description: A technology file must contain cross-sections and at least one Physical and Spacing CSet to be used in the front-end flow. For example, if you export a technology file from the board which has only cross-sections, it means the technology file only contains layer information and no Physical and Spacing Csets. When you create a design and import that technology file in Constraint Manager, the layers are visible but you cannot create any Physical or Spacing Csets.

This is a current limitation in the Design Entry HDL - Constraint Manager flow.

Note: This problem is not there in the Allegro PCB Editor - Constraint Manager because it always contains default CSets.

Solution: You must use a technology file with at least one Physical and Spacing CSet to use it in the front-end flow.

CCMPR01517312: When archiving or copying a project that has been enabled for design management, the project state is changed to read only

Description: When you archive a design or copy a project, the design becomes a read-only project; it should be writable.

Design Entry HDL Known Problems and Solutions

CCMPR00604263: Copying and pasting a TOC component on a schematic shows existing TOC entries in the pasted TOC component.

Description: When you instantiate a TOC component in a schematic, the table of contents is populated with the relevant entries. If you copy this instantiated component and paste it anywhere on the schematic, the existing TOC entries are also copied. As a result, the entries in the originally placed TOC component are displayed in the pasted component as well.

Solution: Do not copy and paste a TOC component on a schematic. Always instantiate the TOC component on the schematic using Component Browser.

CCMPR00305435: Some limitations in Constraint Manager connected to Design Entry HDL 15.7.

Problem 1:

Description: If a differential pair created in Constraint Manager and backannotated, and then deleted in Design Entry HDL it continues to appear in Constraint Manager on a subsequent launch of Constraint Manager.

Solution: Launch Constraint Manager once before deleting the differential pair from the schematic canvas.

Problem 2:

Description: If you are using the Allegro Design Entry HDL L (previously Studio) license and if the constraints view exists for a design, an error occurs when you run the *Export Physical* command in case the schematic canvas has pin-pair constraints.

Solution: Before you run the *Export Physical* command on a design while using the Allegro Design Entry HDL L (or Studio) license, run the following command:

concept2cm -proj cproject_name>.cpm -export -forward -uprev

CCMPR00323630: A differential pair is not deleted on exiting Constraint Manager if the same differential pair is applied on more than two nets.

Description: Consider a case where a differential pair, let's say DP1, created on nets NET1 and NET2, is also applied on nets NET3 and NET4 in a schematic. On launching Constraint Manager, you notice that the differential pair DP1 is visible only on nets NET1 and NET2. On exiting Constraint Manager when the constraints are synchronized between Constraint

Design Entry HDL Known Problems and Solutions

Manager and the schematic, the differential pair DP1 is not deleted from NET3 and NET4 in the schematic.

Workaround: Run Update Schematic to update the schematic.

CCMPR00327311: The Bookmark panel shows the complete hierarchy even for a single page of a PDF document.

Description: Bookmarks in a published PDF document of a design appear for all the pages regardless of the *Page Range* option you select for PDF generation. Therefore, even if you publish only the currently active schematic page as a PDF document, the published document shows complete design hierarchy in the Bookmark panel.

Solution: None

CCMPR00270476: Sized devices cannot be extracted into Signal Explorer

Description: If a design contains a sized device and you try to extract a net which is connected to the sized device, only one instance of the device is shown in the Signal Explorer canvas.

Solution: None

CCMPR01514113: Signal models assigned to components in read-only blocks are lost after relaunching DE-HDL

Description: If you assign signal models to components in read-only blocks that are not assigned to you, signal models are assigned to these components in the in-context mode. You can save the design after the signal models are assigned. However, on launching DE-HDL again, the signal model assignment is lost.

Solution: None

Problem: FLEXID dongle 9 is not recognized on X86_64 or EM64T systems

Description: A FLEXID dongle 9 is not recognized on X86_64 or EM64T systems after you install the dongle driver with Macrovision's FLEXidInstaller.exe v10.0.0.159 driver installer and reboot the system.

Design Entry HDL Known Problems and Solutions

Solution: Install the more recent HASP4 device driver, which you can download from http://www.aladdin.com/support/hasp/hasp4/enduser.asp.

CCMPR00208971: Plots taken in opf will not print the packaged pin-pair values

Description: If you add a logical pin-pair in a lower-level block making it the root design, it appears in both the .dcf and the .opf files. Later, if you place the block in a top-level design and launch Constraint Manager, the pin-pair appears correctly with the updated pin name with a suffix added to the existing pin-pair name. When you package the design, the pin-pair is changed with packaged data.

However, the Attributes form continues to show the logical pin-pair coming from the <code>.opf</code> file of the lower-level block. You cannot see the updated pin-pair on the schematic canvas or the Attributes form in Design Entry HDL.

Solution: None

Solution: For cells containing blank spaces in the primitive names, recreate the metadata using the SPB 15.5 hierarchy.

CCMPR00217887: Match group inheritance becomes overridden for bits

Description: In Constraint Manager connected to Design Entry HDL, if units are set to mils and you specify the value in microns, the value is converted to mils before getting written to the schematic. When the next time you launch Constraint Manager, the value will be overridden by the value in the schematic.

Solution: None

CCMPR00219676: Pin-pair with driver in top-level and receiver in lower-level block is removed

Description: If you open a pre-15.5 hierarchical design in Design Entry HDL 15.5 which contains a pin-pair with the driver in the top-level design and the receiver in the lower-level block and the pin-pair annotated on a net in the lower-level block, the pin-pair will be removed.

Design Entry HDL Known Problems and Solutions

CCMPR00225478: Image getting distorted after insert in HP

Description: If you insert a 32-bit image on the schematic canvas on an HP system with a display setting of 256 colors, the image is distorted.

Workaround1: Before inserting an image on the schematic, open it once in image editor and save in the .gif format.

Workaround2: Change the display settings on the system by changing the depth value to 24 to view the plot correctly. Use the following command to modify the depth setting on system:

sudo /usr/sbin/m64config

Usage:

m64config [-dev devname] [-file machine | system][-res video-mode [now] [noconfirm]
[nocheck] [try]] [-depth 8|24|32] [-defaults] [-propt] [-prconf] [-help]

Note: You will need the root access to modify the depth value.

RF-PCB Known Problems and Solutions

RF-PCB known problems and solutions (KP&S) will be reviewed at regular intervals and updated when new issues arise. Up-to-date known problems and solutions are published on <u>Cadence Online Support</u>.

Status of Problems Reported in Earlier Releases

The following problems reported in previous releases are valid for 23.1 as well:

CCMPR00685098: Properties that are changed cannot be restored by using the Restore Backup option

Description: Properties are annotated through the traditional import physical flow. Backup is not done for pages that have only property updates as the RF import flow only keeps a backup of pages that have undergone connectivity changes. As a result, these pages are not restored when restoring the backup.

Solution: When you update properties on a schematic and want to restore the changes, you need to re-import the old version of the board to restore the existing values on the schematic.

CCMPR00690301: IC and discrete insertion in the layout causes RF PCB Import flow to abort

Description: The RF Import flow supports insertion and deletion of RF components in the layout. Inserting or deleting non-RF components, such as ICs and discrete components, is not supported.

Solution: Use the Design Association flow. RF Import flow will only update the connectivity of the discrete and pins of IC that form part of the RF topology.

Allegro Design Entry HDL Known Problems and Solutions RF-PCB Known Problems and Solutions

Variant Editor Known Problems and Solutions

Variant Editor known problems and solutions (KP&S) will be reviewed at regular intervals and updated when new issues arise. Up-to-date known problems and solutions are published on the <u>Cadence Online Support</u> website.

Status of Problems Reported in Earlier Releases

The following problems reported in previous releases are valid for 23.1 as well:

CCMPR01100481: Global Quick Find feature is not working for variant views

Description: Variant-specific properties are not located by the Find feature when you perform a search for:

- a design object with the *look in Design* option selected.
- Components and Properties, or Nets and Properties.

This is because variant-specific properties are not written to a .dcf file, which stores all the properties on components and nets in a base design.

Solution: None

CCMPR01115970: Issues in variant dynamic overlay functionality in team designing

Description:

When multiple users work on a design that has been enabled for team design, variants are not dynamically updated across different user sessions of DE-HDL. For example, if User1 adds new variants to a design, other users can view these variants in the Variant tab, only after closing and then reopening the design. Similarly, if a user adds or deletes pages in a particular block in the design, other users will need to re-launch DE-HDL to refresh all the variants.

Variant Editor Known Problems and Solutions

Problem: Limitations in Replacing Component

Description: If you replace a component say conn64, with another component, for example bnc_conn, component bnc_conn has the following limitations:

- After backannotation the symbol is not replaced. After component bnc_conn replaces component conn64, the symbol of component bnc_conn continues to remain the same as that of component conn64.
- The properties of component conn64 continue to exist in component bnc_conn. This means that component bnc_conn has its own properties, and those it acquires from component conn64.
- The reference designator of the replaced component bnc_conn is the same as the component replacing it, that is, conn64.
- When bnc_conn is placed on the board, its footprint remains the same as conn64.

Solution: None

Problem: Variant Editor is unable to backannotate components having the SIZE property.

Description: If you have SIZEABLE components on a design and use Variant Editor to backannotate to the design, Variant Editor will not backannotate the instances which have SIZEABLE components on a design.