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Conformal® Known Problems and Solutions

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This Known Problems and Solutions document describes important Cadence Change Management System Request Records (CCRs) for Encounter® Conformal® and tells you how to solve or work around these problems.

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Important: Only known problems and solutions available at release time are available in this document. An up-to-date list of known problems for the Conformal software is published in Cadence online support website.

For information about CCRs that were fixed in this release, see the `README` file accompanying this release. You can read this file online at downloads.cadence.com. For information about new, changed, and deleted features, compatibility issues, and documentation changes, see *What's New in Conformal*.

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General

Unable to open documentation

Description: CDA gives an error of render process being exited when loading the documentation page.

Solution: Launch the CDA application from terminal in standalone mode before launching the litmus or conformal tool.

Explanation: Due to unavailability of resources third-party render process is crashing. User can retry to load the rendered by clicking on the reload button.

Conformal fails to check out licenses

Description: Conformal software fails to check out licenses.

Solution: You may have to update your license server.

Starting in Q4 2013, new releases of Cadence products will be integrated with FLEXnet version 11.11.1.1. Any Cadence product that is integrated with v11.11.1.1 will also require the license server to be at version v11.11.1.1 or later to consume a license. Otherwise the product will fail to run.

FLEXnet version 11.11.1.1 of the license server has been available for download at downloads.cadence.com since May 2013.

Please follow instructions below to check the version of license server you have deployed and to download the latest version.

```
./lmgrd -ver
./cdslmd -ver
```

If the version is earlier than 11.11.1.1, go to Lic+Config_Utils to download and upgrade to the latest version.

Parser Error when Reading in VHDL 2008

Description: Parsing/elaboration fails when VHDL version 2008 is used with any earlier versions of VHDL

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Solution: Standard libraries (such as std_logic_1164, std_logic_vector, and std_ulogic_vector) are defined differently in VHDL 2008 than in previous versions. This can cause unexpected issues when trying to read in different versions of VHDL. For that reason, you cannot use the `READ DESIGN` or `READ LIBRARY` option `-vhdl 2008` with any other versions of VHDL.

For example, the following case reads in a VHDL 93 file using the read design -vhdl 2008 command.

```
// Command: read design -vhdl 2008 *.vhd
// Loading "ieee.std_logic_1164" (system "std_logic_1164.vhdl")
// Loading "ieee.numeric_std" (system "numeric_std.vhdl")
// Parsing file "math_utility_pkg.vhd" ... (library work)
// Loading "ieee.math_real" (system "math_real.vhd")
// Parsing file "fixed_pkg_c.vhd" ... (library work)
// Error: fixed_pkg_c.vhd:1496:12: function "to_ufixed" already declared at
fixed_pkg_c.vhd:1127:12
// VHDL parsing/elaboration failed
```

The to_fixed function was implemented for vhdl 93, and was designed to overload the std_ulogic_vector and std_logic_vector.

CCR 1073366: Tool Crashes During Elaborate
CCR 1074734: Error when Setting Mode to Verify

Description: The tool cannot handle unintended global net references in different design trees. When encountered, the tool can crash during flattening or netlist crossing checks.

For example, if there are wire declarations in the `port.vh` file:

```
wire clk;
wire rst;
```

and they are included in `design1.v`. However, at the same time, in `design2.v` and `design3.v` have implicit wire declarations in instantiation statements:

```
// design2.v
dut1 d1 (.rst(rst), .clk(clk), ...)
```

and

```
// design3.v
dut2 d2 (.reset_b(rst), .clk_b(clk), ...)
```

If the `read design` command includes `port.vh` (as shown in the following command), the tool will crash when switching from Setup mode to LEC/Verify mode:

```
read design -sv port.vh design1.v design2.v design3.v -root design2
```

Solution: Elaborate the design with the `-rootonly` option or remove the offending/ unnecessary file from the `read design` file list.

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For instance, the crash in the example above can be avoided by changing the read design command to:

```
read design -sv design1.v design2.v design3.v -root design2
```

KornShell (ksh) Bug with RHEL 6.2

Description: When exiting a subshell after a command substitution, ksh could prematurely exit without any error. This bug exists with RHEL 6.2 users with ksh-20100621-12.el6.x86_64 rpm.

This bug can cause Cadence wrapper scripts to exit before setting the correct user environment and lead to tool crashes or run errors.

Solution: Use ksh-20100621-16.el6.x86_64 rpm instead. With this version, ksh no longer terminates under the above circumstances and all subsequent commands are processed correctly.

CCR 389539: Startup Issues Due to License Environment Variable

Description: The Conformal software sometimes exits with an internal error at startup due to the license environment variable.

Solution: The following lists several ways to potentially fix this problem:

- Check to see if there is a `.flexlmrc` file in the working or home directory. If there is, remove this file before starting the software.
- The `CDS_LIC_FILE` or `LM_LICENSE_FILE` environment variable, either in the `.flexlmrc` or `.cshrc` file, should be set to a <`port`>@<`machine_server`>. For example: `5280@cadence_server`.
- If the license file contains any comment line, it can also result in a crash. For example, for a line that starts with:

  ```
  #? /tools/license/keys/verplex.lic
  ```

  remove the comment #.
- Remove comment line (the line starts with #) before `USE_SERVER` in the license file if `CDS_LIC_FILE` or `LM_LICENSE_FILE` is set to a license file. For example `/path/to/license.da`.
- Use the following settings as an example:

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```
setenv CDS_LIC_FILE 5280@cadence01
setenv CDS_LIC_ONLY TRUE
setenv LM_LICENSE_FILE /home/tools/license_files
```

Note: `CDS_LIC_FILE` is the variable for Cadence tools and `LM_LICENSE_FILE` is for other vendor tools.

- Run `checkSysconf` to check that you have all the proper patches installed. You can find `checkSysConf` at `tools/bin` in your installation directory. For example, the following runs `checSysconf` on the Conformal 10.1 release:

  ```
  checkSysconf CONFRML101
  ```


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User Interface

CCR 915777: Cannot Switch to GUI Mode after Restarting a Checkpoint File that was Created By Another User

Description: The tool cannot switch to the GUI mode after restarting a checkpoint file that was created by another user. For example, the tool issues messages similar to the following when you use the "`set gui on`" command:

```
Xlib: connection to "<GUI_server>:<id>" refused by server
Xlib: No protocol specified

// Gui-Error: couldn't connect to display "<GUI_server>:<id>"
```

This happens because the previous user's information was captured and saved in the checkpoint file and it does not have permission to launch the GUI from your GUI terminal host (`<GUI_server>:<id>`).

Solution: Open a terminal window from your machine (the machine that is trying to launch the GUI) and use the "`xhost +`" command to turn off access control. This grants your machine permission to display the GUI.

Note:

1. You do not have to exit the Conformal session and restart the checkpoint file.

2. You must issue the "`xhost +`" command from a terminal window that is opened from the machine that will launch the GUI (the GUI server).

Schematics Viewer Does Not Recognize Double Clicks

Description: When you double click in the Schematic Viewer, the tool recognizes this instead as a single click.

Solution: To work around this:

1. Run `/usr/bin/switchdesk`

2. If your current window manager is the K Desktop Environment (KDE), try switching to the GNOME or TWM window manager.

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Equivalency Checking

Comparison Runtime is Longer than Expected

Description: For datapath intensive designs, runtime can take longer when the `ANALYZE DATAPATH` command is not used before the comparison.

Workaround: Run `ANALYZE DATAPATH` before any comparison.

Description: In a multi-threaded comparison, `ANALYZE ABORT -compare` does not stop after specified `ADD MODULE ATTRIBUTE -CPU_LIMIT`

Explanation: Due to the nature of multi-threading, the comparison may not stop at the designated `-CPU_LIMIT`. Comparison time will depend on the number of strategies/threads deployed.

CCR 1056166: LEC is Getting Different Results between Encrypted Design and Non-Encrypted Design

Description: Inconsistent comparison results when using an encrypted and unencrypted version of a design.

Workaround:

With encrypted data, the tool cannot extract exact line information and this can impact the `UNIQUIFY` command. If you receive inconsistent results (NEQ versus EQ, No aborts versus aborts), contact Cadence support with the design data.

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