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Identify® Microsemi Edition Tool Set Release Notes

Version H-2013.03M-SP1, October 2013

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Contents

About This Release

These release notes describe features and enhancements for the H-2013.03M-SP1 release of the Identify Microsemi Edition tool set. This release synchronizes the tool set with the H-2013.03M-SP1 release of the Synplify Pro synthesis tool..

Device Support

The H-2013.03M-SP1 release supports the following Microsemi device families. Device selection is specified solely in the synthesis tool and passed to the Identify instrumentor in the synthesis project file. Specifying a library in the synthesis tool that is not supported in the Identify tool set results in a "device not supported" message when attempting to launch the Identify instrumentor.

Fusion	SmartFusion	SmartFusion2
IGLOO	IGLOOe	IGLOO PLUS
IGLOO2	ProASIC	ProASIC PLUS
ProASIC3	ProASIC3E	ProASIC3L

Installation

The directory where Identify is installed is referred to as the *installDirectory*. The installation subdirectory name consists of the Identify product name and an associated version number, in the current case, Identify_H201303Msp1 (for version H-2013.03M-SP1). This naming convention permits multiple versions to be installed in the same product directory. On Windows platforms, the start menus, desktop icons, and uninstall names have an associated version number, in the current case, Identify H-2013.03M-SP1. For a list of the compatible Windows-based platforms, see .

Downloading the Software

The Identify software is installed directly from the downloaded exe file. Installing the software creates the Identify_H201303Msp1 subdirectory in the installation directory. This directory contains the following files and subdirectories:

*/installDirectory/*Identify_H201303Msp1/

win64　bin　CseJtag　doc　etc　lib　share　licinfo.txt
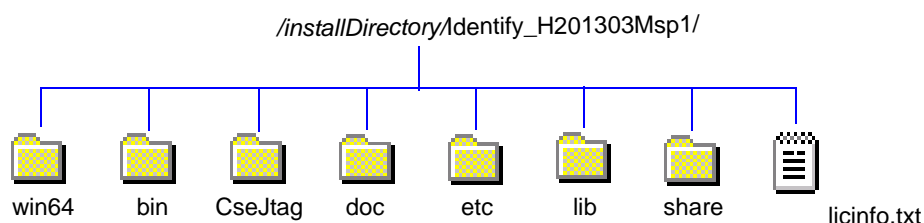
The contents of the files or sub-directories are as follows:

Directory	Contents
win64	Executables for the Identify instrumentor and Identify debugger
CseJtag	Drivers
doc	User documentation
etc	Location for user-defined startup scripts; template included
lib	Program data files
share	Includes the following subdirectories: • contrib – source directory for scripts executed on startup • synthesis – program specific data files • tutorial – the bus_demo and counter designs for the tutorials
Text Files	ASCII version of the Synopsys Software License and Maintenance Agreement

Platform Support

The Identify H-2013.03M-SP1 release is compatible with the following Windows (x86/x64) platforms and operating systems:

- Windows 7 Professional or Enterprise (64-bit)
- XP Professional (64-bit)

Synopsys FPGA Synthesis Tool Requirements

The H-2013.03M-SP1 release of the Identify tool set can only be used with the following Synopsys FPGA tools on the above platforms and operating systems.

Tool	Required Version
Synplify Pro synthesis tool	FPGA H-2013.03M-SP1

Machine Requirements

Machine memory requirements vary according to the size and complexity of your designs. At a minimum, 4 Gbytes of RAM are generally required. Your machine's virtual memory (swap space) should be set to at least twice the capacity of the RAM.

Location of the cfg File

The Windows platforms do not permit applications to write to the C:/Windows directory. Because the Identify tools must update the userprefs.cfg initialization file, this file is written to the following directory locations:

On Windows 7 platforms, the software stores the `cfg` file at the following location:

```
C:\Users\userName\AppData\Roaming\Identify
```

On Windows XP platforms, the software stores the `cfg` file at the following location:

```
C:\Documents and Settings\userName\Application Data\Identify
```

Windows Memory Configuration

For all memory configurations, Windows uses a default virtual address space of 4 GBytes; 2 GBytes allocated to user processes (applications) and 2GBytes allocated to the operating system and kernel-mode drivers. On Windows Server 2003 systems and Windows XP Pro systems (with Service Pack 2) that have 1 GByte or more of physical memory, the memory allocation between applications and operating system can be modified to increase the user-process memory allocation to 3 GBytes (and reduce the operating system memory allocation to 1 GByte). For the most up-to-date information for reconfiguring memory allocation on a compatible system, see *How to Set the /3GB Startup Switch in Windows* and related topics on the Microsoft TechNet (http://www.microsoft.com/technet).

Configuring the Windows Firewall for Client Access

Windows XP Service Pack 2 (SP2) and later enhance the security capabilities of the Windows operating system. If you are using a Windows XP machine with an SP2 or later update as your floating license server, you must configure the XP firewall application to allow client access to the floating license ports.

The license manager daemon (lmgrd) and the snpslmd license daemon are separate processes and each requires a separate port to run its associated driver. For floating licenses, you must define a PORT variable for the snpslmd license daemon and then add the ports to the list of exceptions in the firewall application.

Do the following:

1. Open the license file and edit it to define the variable for the snpslmd license daemon by adding a PORT variable to the VENDOR line.
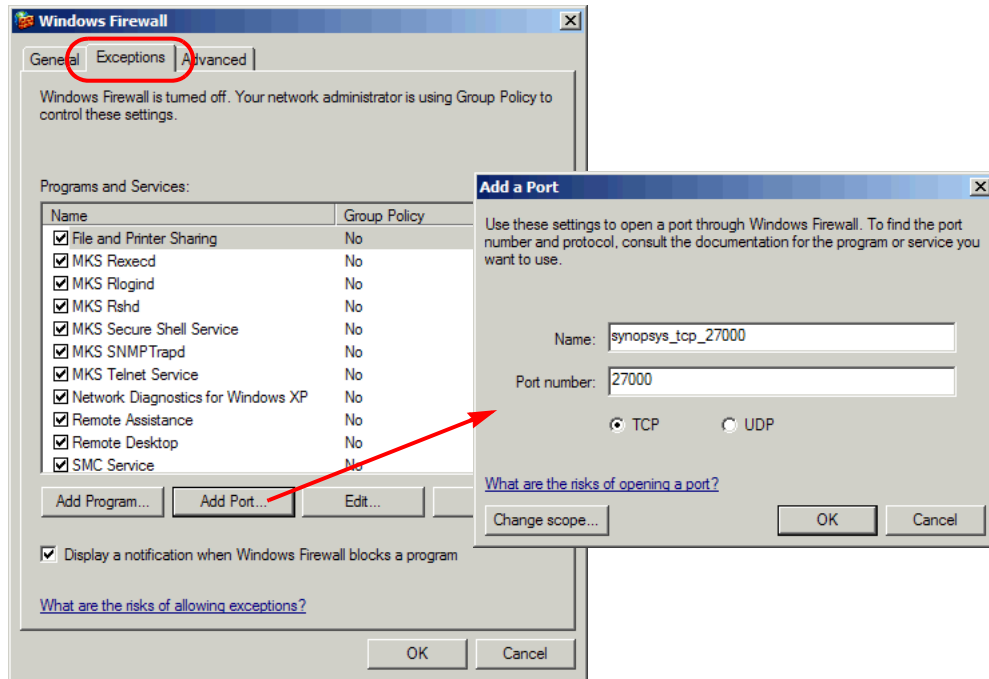
   The following is an example:

   ```
   SERVER <server_name> FLEXID=9-089Dxxxx 27000
   VENDOR snpslmd c:\synopsys\scl_11.1\windows\bin\snpslmd.exe PORT=27001
   INCREMENT synplifypro snpslmd 2010.12 31-dec-2011 1 \
   ...
   ```

   Next, you must add the port values to the Exceptions list in the Windows Firewall application.

2. From the Control Panel, open the Windows Firewall application.

3. Click the Exceptions tab, and then click the Add Port button to display the Add a Port dialog box.

4. Add the TCP port for the license manager daemon by doing the following in the Add a Port dialog box:
   – In the Name field, specify a name for the TCP port. For example, synopsys_tcp_27000.
   – In the Port number field, enter the assigned TCP port value from the license file. Using the sample license file as an example, enter 27000.
   – Click OK in the Add a Port dialog box to accept the entry and close the dialog box.

5. Specify the port for the snpslmd license daemon as follows:
   – Click the Add Port button to redisplay the Add a Port dialog box, and then set the following options.
   – In the Name field, specify a name for the snpslmd license daemon port. For example, synopsys_port_27001.
   – In the Port number field, enter the assigned PORT value from the license file. Using the sample license file as an example, enter 27001.
   – Click OK in the Add a Port dialog box to accept the entry and close the dialog box.

6. Verify that the port names you assigned are included in the Programs and Services list of the Exceptions pane.

7. Click OK in the Windows Firewall dialog box to exit the Windows Firewall application.

Identify Documentation

The following documentation is included with the H-2013.03M-SP1 release of the Identify tool set:

- Identify Microsemi Edition Tool Set Release Notes (this document)
- Identify Microsemi Edition User Guide
- Identify Microsemi Edition Reference Manual
- Identify Microsemi Edition Quick Start Guide
- Identify Microsemi Edition Quick Tutorial
- Identify Microsemi Edition Tutorial
- Synopsys Software License and Maintenance Agreement

Accessing Documents using the Acrobat Reader

PDF documents display in Adobe Acrobat Reader. You can download the latest Acrobat Reader at no cost from Adobe's website (www.adobe.com). The PDF files provided are optimized for output to a laser printer, not for viewing online.

From within the software, you can open the PDF documents by selecting Help->Online Documents and selecting the appropriate PDF. You can also access PDF documents without running the software by going to Start->Programs->Synopsys->Identify H-2013.03M-SP1->Documents and selecting the desired PDF document.

Note: Do not use the View->Full Screen option when viewing documents in Acrobat Reader unless you are sure you want this full magnification. On some applications, this selection takes over the monitor and there is no apparent way to access other running tasks or windows. If you do happen to use the Full Screen option, you can use Ctrl-l to undo it.

Resolved Issues

The following issues have been resolved by the Identify H-2013.03M-SP1 release:

Resolved Issue: Placing a signal into multiple multiplexed groups caused the sample-data reporting to be incorrect (STAR 9000542765).

Resolved Issue: When using data compression with always-armed triggering enabled, both the trigger position and the captured sample prior to the trigger were incorrect (STAR 9000526277).

Resolved Issue: When using data compression with cross-triggering enabled, the trigger position was incorrect (STAR 9000526349).

Resolved Issue: Placing a signal into multiple multiplexed groups caused the sample-data reporting to be incorrect (STAR 9000542765)

Important Issues and Workarounds

The following issues have been identified with the Identify H-2013.03M-SP1 release:

Problem: When using VHDL, if the trigger signal (scalar) is of type std_logic, the value must be enclosed in single quotes in both the UI and the shell as shown in the following command (STAR 9000483412):

```
watch enable -iice IICE -condition 0 /my_signal {'0'}
```

Entering a scalar signal without quotes or in double quotes results in an error. Conversely, vectors must be entered without quotes as shown in the following command:

```
watch enable -iice IICE -condition 0 /my_bus {1010}
```

Workaround: Make sure that all scalars are enclosed in single quotes and that vectors are entered without quotes.

Problem: The message suppression feature available with the synthesis tools cannot be used to suppress (or change the severity of) messages generated by Identify (STAR 9000484518).

Workaround: Be sure to disable message suppression when using an Identify implementation.

Problem: If an implementation includes an edf black-box module, the Identify instrumentor errors out complaining about an undefined module (STAR 9000315931).

Workaround: Replace the edf black box with some RTL or a functional edf module.

Problem: Use of external triggers via the import trigger mechanism causes an excessive use of internal block RAM due to sampling of the trigger as well as the creation of a look-up table. The problem is most notable when the maximum of eight imported triggers is selected. A better mechanism to import triggers that uses fewer resources will be available in a future release (STAR 9000462154).

Workaround: Add an extra input to the top-level RTL code and instrument the input as a trigger only.

Problem: Cross-triggering can cause Identify Debugger to crash if a trigger condition is not set for each IICE (STAR 9000359582).

Workaround: Set a trigger for each IICE (even a dummy trigger).