VC Verification IP Installation and Setup Guide

Version W-2024.09, September 2024

SYNOPSYS®

Copyright and Proprietary Information Notice

© 2024 Synopsys, Inc. This Synopsys software and all associated documentation are proprietary to Synopsys, Inc. and may only be used pursuant to the terms and conditions of a written license agreement with Synopsys, Inc. All other use, reproduction, modification, or distribution of the Synopsys software or the associated documentation is strictly prohibited.

Destination Control Statement

All technical data contained in this publication is subject to the export control laws of the United States of America. Disclosure to nationals of other countries contrary to United States law is prohibited. It is the reader's responsibility to determine the applicable regulations and to comply with them.

Disclaimer

SYNOPSYS, INC., AND ITS LICENSORS MAKE NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Trademarks

Synopsys and certain Synopsys product names are trademarks of Synopsys, as set forth at
https://www.synopsys.com/company/legal/trademarks-brands.html.
All other product or company names may be trademarks of their respective owners.

Free and Open-Source Licensing Notices

If applicable, Free and Open-Source Software (FOSS) licensing notices are available in the product installation.

Third-Party Links

Any links to third-party websites included in this document are for your convenience only. Synopsys does not endorse and is not responsible for such websites and their practices, including privacy practices, availability, and content.

www.synopsys.com

Contents

Contents

1

Preface

About This Document

This installation and setup guide presents information about installing Verification IP (referred to as VIP) and setting up a project directory for using the VIPs.

Web Resources

```
Documentation through SolvNetPlus: https://solvnetplus.synopsys.com
 (Synopsys password required)
Synopsys Common Licensing (SCL): http://www.synopsys.com/keys
```

Customer Support

To obtain support for your product, choose one of the following:

1. Go to *https://solvnetplus.synopsys.com/* and open a case.

    ◦ Enter the information according to your environment and your issue.

2. Send an e-mail message to support_center@synopsys.com

    ◦ Include the Product name, Sub Product name, and Product version for which you want to register the problem.

3. Call your local support center.

    North America:

    Call 1-800-245-8005 from 7 AM to 5:30 PM Pacific time, Monday through Friday.

    All other countries:

    https://www.synopsys.com/support/global-support-centers.html

Synopsys Statement on Inclusivity and Diversity

Synopsys is committed to creating an inclusive environment where every employee, customer, and partner feels welcomed. We are reviewing and removing exclusionary language from our products and supporting customer-facing collateral. Our effort also includes internal initiatives to remove biased language from our engineering and working environment, including terms that are embedded in our software and IPs. At the same time, we are working to ensure that our web content and software applications are usable to people of varying abilities. You may still find examples of non-inclusive language in our software or documentation as our IPs implement industry-standard specifications that are currently under review to remove exclusionary language.

2

Overview of the VIP Installation and Setup

This installation and setup guide explains how to install Verification IP and use selected VIP titles in a specific project.

The following steps are required to be performed for VIP installation:

1. Select and download *VC VIP <Product>*from SolvNetPlus.

2. Create a central installation repository where the *VC VIP <Product>*is unpacked.

3. Create a project directory (also known as the design directory in the VIP User Guide) to further configure VIP models and versions used by each project during compile and runtime.

Figure 1 displays the VIP installation flow as well as the directory structures of the VIP installation and the project directory.

Figure 1   VIP Installation Flow and Directory Structures
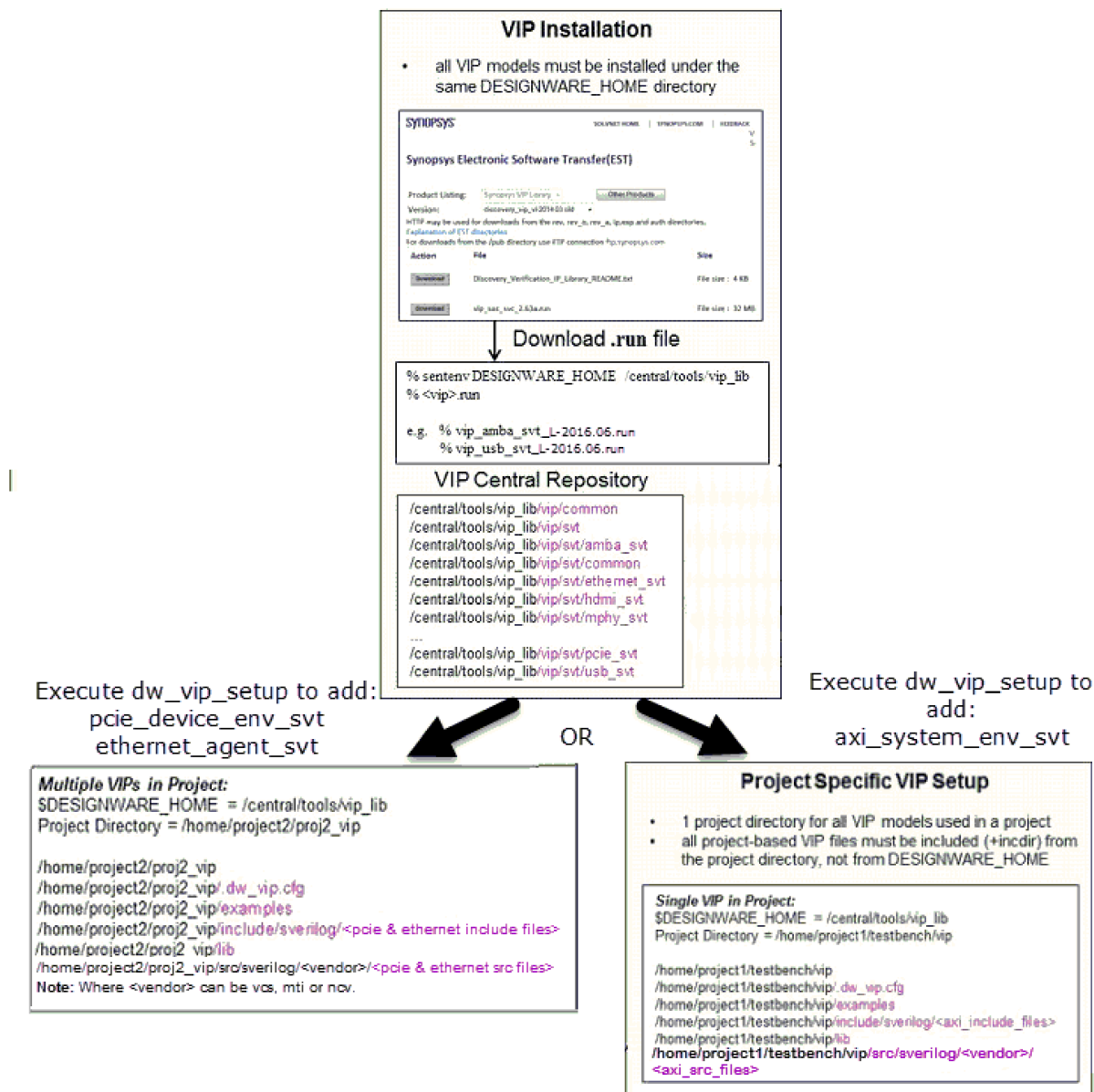
Each VIP provides a suite of advanced SystemVerilog verification components and data objects that are compliant to UVM. After the VIPs are installed, you can integrate these components and objects into any UVM compliant testbench. Figure 2 is the VIP integration and test work flow.

If you find the DESIGNWARE_HOME is correct, then rebuild your design_dir to be consistent with your DESIGNWARE_HOME. If you find the design_dir is correct, then you should confirm you are using the appropriate DESIGNWARE_HOME for the design_dir.

When you use a design_dir, you have to make sure that the DESIGNWARE_HOME is consistent with the design_dir. To do this you must confirm that the SVT version identified in the design_dir is available in the DESIGNWARE_HOME you have specified. The design_dir and DESIGNWARE_HOME must be consistent with all of the versions, such as common, SVT, and VIPs referenced in the design_dir.

Figure 2   VIP Integration and Test Work Flow
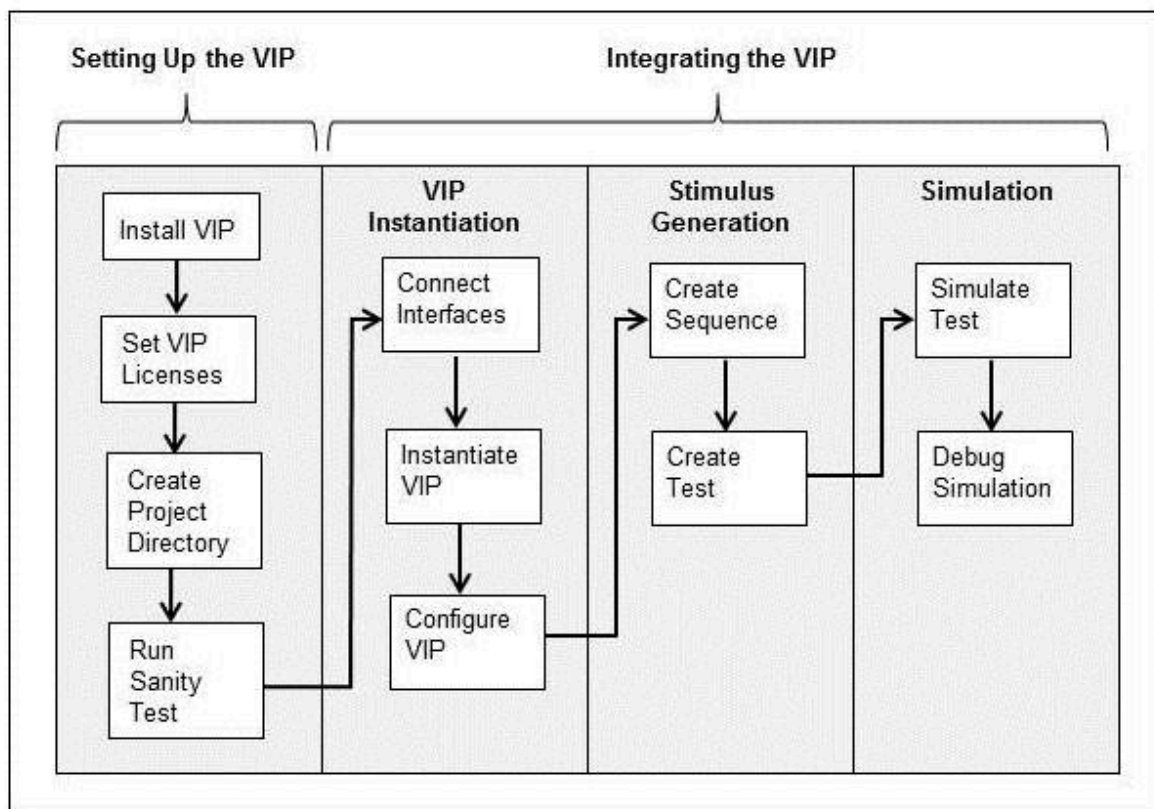
For more information on integrating the VIPs, see the VIP Getting Started Guides. These guides are available on the SolvNetPlus Documentation page and in the VIP installations at the following location:

$DESIGNWARE_HOME/vip/svt/vip_title/latest/doc/vip_title_uvm_getting_started.pdf

3

VIP Installation

All Verification IP must be installed into a single installation directory specified by the DESIGNWARE_HOME environment variable. This directory is a central repository for all supported versions of all different VIPs.

Only a single DESIGNWARE_HOME path is allowed per project setup.

The steps for installing a VIP are described in the following sections:

- Specify the VIP Central Repository
- Download a VIP
- Execute the .run File
- Set the VIP Licenses
- VIP Installation Utility
- Running the Example With +incdir+
- Running the Example With IEEE Common Encryption

Specify the VIP Central Repository

If a VIP is installed by another user, complete the following steps and continue to Section 2.3, Set the VIP Licenses:

- Obtain the installation path of the VIP.
- Set the DESIGNWARE_HOME environment variable to the VIP installation directory.

  % setenv DESIGNWARE_HOME VIP_installation_path

  Note:

  If the VIP has not been installed, follow the instructions in the next section to download the VIP.

Download a VIP

The following are the steps to download and install a VIP:

1. Logon to the SolvNetPlus online support site http://solvnetplus.synopsys.com

2. Perform the following selection on SolvNetPlus to download the .run file of the VIP based upon your license access:

   a. Navigate to the *Downloads* tab.

   b. Select the *VC VIP <Product>* from the list of Product Releases.

   c. Select the required <release_version> from the list of release version.

   d. Click the *Download Here* button.

   e. Read the Electronic Software Transfer notice.

   f. If you agree that you have read and understood the notice, and agree to its terms regarding the downloading of the software, then click the *Yes, I Agree to the Above Terms* button. Otherwise, click *No, I do not Agree*.

3. Download the .run file for the VIP.

4. Set the DESIGNWARE_HOME environment variable to a path where you want to install the VIP (see Figure 1-1).

   % setenv DESIGNWARE_HOME VIP_installation_path

Execute the .run File

After the .run file is downloaded, you execute the .run file by invoking its filename on a UNIX machine. The VIP is unpacked and all files and directories are installed under the path specified by the DESIGNWARE_HOME environment variable. The .run file can be executed from any directory. The important step is to set the DESIGNWARE_HOME environment variable before executing the .run file.

Set the DESIGNWARE_HOME environment variable to the path where you want to install the VIP (see Figure 1-1).

% setenv DESIGNWARE_HOME VIP_installation_path

For example,

```
% setenv DESIGNWARE_HOME /central/tools/vip_lib
% vip_amba_svt_<version_number>.run
```

Following is a partial list of directories and files installed by the vip_amba_svt_<version_number>.run executable file.

```
/central/tools/vip_lib/vip/common
/central/tools/vip_lib/vip/svt
/central/tools/vip_lib/vip/svt/common
/central/tools/vip_lib/vip/svt/amba_svt
/central/tools/vip_lib/vip/svt/amba_svt/<version_number>
/central/tools/vip_lib/vip/svt/amba_svt/latest -> ./<version_number>/
/central/tools/vip_lib/vip/svt/amba_svt/<version_number>/doc
/central/tools/vip_lib/vip/svt/amba_svt/<version_number>/examples
/central/tools/vip_lib/vip/svt/amba_svt/<version_number>/sverilog
/central/tools/vip_lib/vip/svt/amba_svt/<version_number>/ahb_master_agent
_svt
/central/tools/vip_lib/vip/svt/amba_svt/<version_number>/axi_system_env_
svt
```

Set the VIP Licenses

You need to set the SNPSLMD_LICENSE_FILE environment variable to the file that contains the VIP license keys. The following are the methods for setting the environment variable.

```
% setenv SNPSLMD_LICENSE_FILE port@host
```

For example,

```
% setenv SNPSLMD_LICENSE_FILE 4321@projlic
% setenv SNPSLMD_LICENSE_FILE /central/tools/license/vip_licenses
```

You can specify multiple license servers separated by a colon; however, searching for available licenses through multiple license servers may take time and impact performance. To minimize the potential performance impact, Synopsys recommends that you set the DW_LICENSE_FILE environment variable in addition to SNPSLMD_LICENSE_FILE, and only set VIP license servers into the DW_LICENSE_FILE.

For example,

```
% setenv SNPSLMD_LICENSE_FILE 4321@svr1:5678@svr2:9999@svr3
% setenv DW_LICENSE_FILE 4321@svr1:5678@svr2
```

For more information on the installation and setup process, see the VIP UVM User Guide in the VIP installation at the following location:

```
$DESIGNWARE_HOME/vip/svt/vip_title/latest/doc/vip_title_uvm_user_guide.
pdf
```

For example,

```
$DESIGNWARE_HOME/vip/svt/usb_svt/latest/doc/usb_svt_uvm_user_guide.pdf
```

VIP Installation Utility

The following utility has been added

```
$ snps_vip_install -help
```

This utility is developed to manage the DESIGNWARE_HOME installation.

Usage:

```
snps_vip_install <argument> ...
```

The `<argument>` can be any one as defined in the following table.

Table 1   Arguments

Argument	Description
`-help`	Displays the usage of this tool
`-show`	**Displays all products and versions available in the**DESIGNWARE_HOME installation
`-remove <product> [<version>]`	Remove the specified product version from the DESIGNWARE_HOME installation and execute `dwh_install`. If the version is not specified, then the tool removes the product and all the versions. **Note:** Write access to the DESIGNWARE_HOME installation is required to use this argument.
`-incdir <product> [<version>]`	Displays the minimal set of include directories that must be specified on the command line during the compile phase of the simulation to reference the corresponding VIP product and version. If no version is specified, then the 'latest' version is assumed. **Note:** This switch is used if you are using the incdir method of loading VIP files.

Running the Example With +incdir+

In the current setup, you install the VIP under DESIGNWARE_HOME followed by creation of a design directory which contains the version-ed VIP files.

With every newer version of the already installed VIP requires the design directory to be updated.

This results in:

- Consumption of additional disk space

- Increased complexity to apply patches

The new alternative approach of directly pulling in all the files from `DESIGNWARE_HOME` eliminates the need for design directory creation. VIP version control is now in the command line invocation. The following code snippet shows how to run the basic example from a script:

```
cd /examples/sverilog/<vip>_svt/tb_<vip>_svt_<methodology>_basic_sys/
// To run the example using the generated run script with +incdir+
./run_<vip>_svt_<methodology>_basic_sys -verbose -incdir base_test
 vcsvlog
```

Or

```
make base_test VERBOSE=1 INCDIR=1 USE_SIMULATOR=vcsvlog
```

Note:

This feature is supported with Xcelium 21.* onwards versions with
`-enable_strict_macroref`option

For example, the following compile log snippet shows the paths and defines set by the new flow to use VIP files right out of DESIGNWARE_HOME instead of `design_dir`.

```
vcs -l ./logs/compile.log -q -Mdir=./output/csrc
+define+DESIGNWARE_INCDIR= \
+define+SVT_LOADER_UTIL_ENABLE_DWHOME_INCDIRS \
+incdir+/vip/svt/<vip>_svt/sverilog/include \
-ntb_opts <methodology> -full64 -sverilog
 +define+<methodology>_PACKER_MAX_BYTES=16000
+define+<methodology>_PACKER_MAX_BYTES=1500000 \
+define+<methodology>_DISABLE_AUTO_ITEM_RECORDING -timescale=1ns/1ps
 +define+SVT_<methodology>_TECHNOLOGY
+define+SYNOPSYS_SV \
+incdir+<testbench_dir>/examples/sverilog/<vip>_svt/tb_<vip>_svt_<methodo
logy>_basic_sys/
. \
+incdir+<testbench_dir>/examples/sverilog/<vip>_svt/tb_<vip>_svt_<methodo
logy>_basic_sys/
../../env \
+incdir+<testbench_dir>/examples/sverilog/<vip>_svt/tb_<vip>_svt_<methodo
logy>_basic_sys/
../env \
+incdir+<testbench_dir>/examples/sverilog/<vip>_svt/tb_<vip>_svt_<methodo
logy>_basic_sys/
env \
+incdir+<testbench_dir>/examples/sverilog/<vip>_svt/tb_<vip>_svt_<methodo
logy>_basic_sys/
dut \
```

```
+incdir+<testbench_dir>/examples/sverilog/<vip>_svt/tb_<vip>_svt_<methodo
logy>_basic_sys/
hdl_interconnect \
+incdir+<testbench_dir>/examples/sverilog/<vip>_svt/tb_<vip>_svt_<methodo
logy>_basic_sys/
lib \
+incdir+<testbench_dir>/examples/sverilog/<vip>_svt/tb_<vip>_svt_<methodo
logy>_basic_sys/
tests \
-o ./output/simvcssvlog -f top_files -f hdl_files
```

Note:

> For VIPs with dependency, include the +incdir+ for each dependent VIP.

To use INCDIR flow, the following titles are recommended to be installed in common
Designware home.

```
svt_ethernet
svt_i2c
svt_mipi_i3c
svt_uart
svt_usb
```

# Running the Example With IEEE Common Encryption

IEEE Encryption:

To optimize the release package and enable single run script usage for all simulators
in SVT VIPs, the *com* directory is included in the VIP package. This directory has VIP
encryption based on the *IEEE Verilog Standard 1364-2005 Encryption*. By adding `+define`
`+SVT_ENABLE_COMMON_ENCRYPT` to the compile script, you can direct the VIP to select the
encrypted files from com directory instead of vcs, mti or ncv directory.

Note:

> This feature is supported with Xcelium 21.* onwards versions with
> `-enable_strict_macroref` option. Also, the exiting vendor-specific directories
> of the VIP release package are intact. These vendor-specific directories would
> be removed from the VIP package in future.

Figure 3   Simulator Support

4

Project Directory Creation

You need to create a project directory (also known as the design directory in the VIP UVM User Guide) to use VIP models or to run VIP examples. All VIP models required by a particular project must be added to a single common project directory (see Figure 1-1). You can specify any directory as a project directory. However, the project directory should not reside within the installation directory specified by the `DESIGNWARE_HOME` environment variable

The steps to create a project directory and complete the VIP setup are described in the following sections:

<p style="color:blue">Build a Project Directory
Run a Sanity Test
Set Up the SATA, SAS and Fibre Channel VIPs
Set Up the Interlaken VIPs</p>

The VIP setup after installing a VIP and the location of the VIP documents are different for the following titles.

SATA, SAS, Fibre Channel

For more information, see the Setup the SATA, SAS and Fibre Channel VIPs.

Interlaken

For more information, see the Setup the Interlaken VIPs.

Build a Project Directory

The VIP installation includes a dw_vip_setup setup utility that can be used to add VIP models and examples selected by users to a project directory. The following command displays a list of available VIP models and examples installed under the VIP installation directory specified by $DESIGNWARE_HOME:

```
% $DESIGNWARE_HOME/bin/dw_vip_setup -info home
```

Figure 4   *VIP Models and Examples*

```
prasadg@vgvip3% $DESIGNWARE_HOME/bin/dw_vip_setup -info design

#------------------------------------------------------------------#
# Synopsys VIP Setup: Copyright(C) 1994-2016 Synopsys, Inc.        #
#------------------------------------------------------------------#


#------------------------------------------------------------------#
# DESIGNWARE_HOME = /slowfs/vgviprelease1/vip_latest
#
# Using vmt version J-2014.12-SP2
# Using vrt version L-2016.03
# Using svt version L-2016.03-3
#------------------------------------------------------------------#

# Setup information for design at /slowfs/vgcs15/prasadg/designs_dir

# LIBRARIES:
# -lib svt -v L-2016.03-1
# -lib amba_svt -v L-2016.03-1-T0304
# -lib ethernet_svt -v L-2016.03
# -lib ethernet_test_suite_svt -v K-2015.12
# -lib mphy_svt -v K-2015.12
# -lib onfi_svt -v K-2015.12
# -lib pcie_svt -v K-2015.12
# -lib pcie_test_suite_svt -v K-2015.12

# MODELS:
axi_interconnect_env_svt -v L-2016.03-1-T0304
axi_interconnect_svt -v L-2016.03-1-T0304
axi_lp_master_agent_svt -v L-2016.03-1-T0304
axi_lp_port_monitor_svt -v L-2016.03-1-T0304
axi_master_agent_svt -v L-2016.03-1-T0304
axi_master_svt -v L-2016.03-1-T0304
axi_port_monitor_svt -v L-2016.03-1-T0304
axi_slave_agent_svt -v L-2016.03-1-T0304
axi_slave_svt -v L-2016.03-1-T0304
axi_system_env_svt -v L-2016.03-1-T0304
axi_system_monitor_svt -v L-2016.03-1-T0304
ethernet_agent_svt -v L-2016.03
ethernet_monitor_svt -v L-2016.03
ethernet_test_suite_configuration_svt -v K-2015.12
ethernet_txrx_svt -v L-2016.03
mphy_agent_svt -v K-2015.12
mphy_monitor_svt -v K-2015.12
mphy_txrx_svt -v K-2015.12
onfi_agent_svt -v K-2015.12
```

You can add any VIP models on the list to the project directory by executing the following command.

```
% $DESIGNWARE_HOME/bin/dw_vip_setup -path project_directory -add
VIP_model
```

where `-path` specifies the project directory and `-add` specifies the VIP model to be added. The VIP files are placed under the project directory.

VC VIP for PCIe example:

% $DESIGNWARE_HOME/bin/dw_vip_setup -path /home/project1/testbench/vip -add pcie_agent_svt

The VIP files are placed under the project directory*/home/project1/testbench/vip*.

VC VIP for AMBA example:

% $DESIGNWARE_HOME/bin/dw_vip_setup -path /home/project1/testbench/vip -add amba_system_env_svt

The VIP files, including files for AHB, APB, AXI and ATB, are placed under the project directory /home/project1/testbench/vip.

Only a single DESIGNWARE_HOME path is allowed per project setup.

Run a Sanity Test

Each VIP installation includes a list of VIP examples. The following command displays the available examples:

```
% $DESIGNWARE_HOME/bin/dw_vip_setup -info home
```

You can add the following example to your project directory and run the example to verify the VIP installation and setup.

$DESIGNWARE_HOME/vip/svt/vip_title/latest/examples/sverilog/ tb_vip_title_uvm_basic_sys

For example,

$DESIGNWARE_HOME/vip/svt/usb_svt/latest/examples/sverilog/ tb_usb_svt_uvm_basic_sys

Complete the following steps to verify the VIP installation and setup:

- From the project directory, add the `tb_`*vip_title*`_uvm_basic_sys` example by executing the following command:

  % $DESIGNWARE_HOME/bin/dw_vip_setup -e vip_title/tb_vip_title_uvm_basic_sys

- Go to the example directory

  % cd ./examples/sverilog/vip_title/tb_vip_title_uvm_basic_sys

- Execute the simulation command:

  ```
  % gmake USE_SIMULATOR=vcsvlog test_name
  ```

  VCS/VCS MXusers:

  NC Verilog/Incisive users:

  ```
  % gmake USE_SIMULATOR=ncvlog test_name
  ```

ModelSim/Questa users:

```
% gmake USE_SIMULATOR=mtivlog test_name
```

To find out the available examples of a VIP title, use:

```
% dw_vip_setup -info home[:<product>[:<version>[:<methodology>]]]
```

If the simulation completes without an error and the following message is displayed at the end of the simulation, then the VIP installation and setup was successful:

```
"SvtTestEpilog: Passed"
```

If the simulation fails, then review the VIP UVM User Guide for more information on the installation and setup process. If the problem persists, contact Synopsys customer support as described in the"Customer Support" of this document.

For the AMBA interfaces (AHB, APB, AXI and ATB), the *vip_title* is `amba_svt` and the *vip_title* of the example is the interface name. For example, the example of the VC VIP for AXI is at the following location:

$DESIGNWARE_HOME/vip/svt/amba_svt/latest/examples/sverilog/
tb_axi_svt_uvm_basic_sys

Set Up the SATA, SAS and Fibre Channel VIPs

The VC VIP for SATA, SAS and Fibre Channel do not support the dw_vip_setup setup utility. Each of these VIP installations includes a list of VIP examples. You can run an example to verify the VIP installation and setup.

Run a Sanity Test

Complete the following steps to verify the VIP installation and setup:

• Go to the Verilog directory.

```
% cd $DESIGNWARE_HOME/vip/svc/vip_title/latest/simulator/protocol/
Verilog
```

vip_title

sata_svc, sas_svc, fc_svc

simulator

vcs, ncv, mti

protocol

SATA, SAS, FC

- Execute the following commands:

  ```
  % setenv EXPERTIO_protocolSVC_INSTALL_PATH

  $DESIGNWARE_HOME/vip/svc/vip_title/latest/simulator/protocol/Verilog

  % setenv SVC_SIM simulator_variable
  ```

Where, *simulator_variable* is VCS, NC or MT.

```
% setenv ARCH lnx86
% make
% cd Example
% make test_basic_uvm_vcs
   VC_ARGS="$DESIGNWARE_HOME/vip/common/latest/C/lib/amd64/VipCommonNtb.
so"
```

For more information on the installation and setup process, refer to the VIP user guide in the VIP installation at the following location:

$DESIGNWARE_HOME/vip/svc/vip_title/latest/simulator/protocol/Verilog/ Doc/vip_title_user_guide.pdf

Set Up the Interlaken VIPs

The VC VIP for Interlaken do not support the `dw_vip_setup` setup utility. Each of these VIP installations includes a list of VIP examples. You can run an example to verify the VIP installation and setup.

Run a Sanity Test

Complete the following steps to verify the VIP installation and setup:

- Go to the sim directory.

  % cd $DESIGNWARE_HOME/vip/nvs/vip_title/latest/sim

  ```
  vip_title
  ```

  ```
  intlkn_nvs
  ```

```
intlkn_nvs
```

- Execute one of the following commands based on your simulator and platform selections.

  ```
  % run_vcs_uvm_prt
  % run_vcsmx_uvm_prt
  ```

```
% run_vcs_partition_compile_uvm_prt
% run_ncv_uvm_prt
% run_questa_uvm_prt
```

A

Summary of Commands, Documents, and Examples

Commands in This Document

Display VIP models and examples under the VIP installation directory specified by $DESIGNWARE_HOME:

```
% $DESIGNWARE_HOME/bin/dw_vip_setup -info home
```

Add VIP models to the project directory:

```
% $DESIGNWARE_HOME/bin/dw_vip_setup -path project_directory -add
VIP_model
```

Add VIP examples to the directory where the command is executed:

```
% $DESIGNWARE_HOME/bin/dw_vip_setup -e VIP_example
```

Primary Documentation for VC Verification IP

The primary documentation for the following guides can be accessed from the following location,

https://spdocs.synopsys.com/dow_retrieve/latest/home_public/vip_library.html

- VC VIP UVM Getting Started Guide
- VC VIP UVM User Guide
- VC VIP UVM Class Reference
- VC VIP QuickStart
- VC VIP Test Suite

For the AMBA interfaces (AHB, APB, AXI and ATB), the *vip_title* is amba_svt and the *vip_title* of the "doc" subdirectory is the interface name (For exmple, axi).

For the MIPI interfaces (CSI-2 and DSI), the vip_title is mipi_svt and the vip_title of the "doc" subdirectory is "mipi" followed by the interface name (For example, mipi_csi2).

The VC VIP Verification Plans are available in the following location:

$DESIGNWARE_HOME/vip/svt/vip_title/latest/doc/VerificationPlans

Example Home Directory

Directory that contains a list of VIP example directories:

$DESIGNWARE_HOME/vip/svt/vip_title/latest/examples/sverilog

View simulation options for each example,

```
gmake help
```

Primary Documentation and Example Directory for VC VIP SATA, SAS and Fibre Channel

The primary documentation for VC VIP SATA, SAS and Fibre Channel can be accessed from the following location, https://spdocs.synopsys.com/dow_retrieve/latest/home_public/vip_library.html

- VC VIP UVM Getting Started Guide

- VIP VIP Verilog and UVM User Guide

Directory that contains a list of VIP examples

$DESIGNWARE_HOME/vip/svc/vip_title/latest/simulator/protocol/Verilog/Example

Primary Documentation and Example Directory for VC VIP Interlaken

The primary documentation for VC VIP Interlaken can be accessed from the following location

https://spdocs.synopsys.com/dow_retrieve/latest/home_public/vip_library.html

- VC VIP UVM Getting Started Guide

- VIP VIP UVM User Guide

Directory that contains a list of VIP examples:

$DESIGNWARE_HOME/vip/nvs/vip_title/latest/sim