

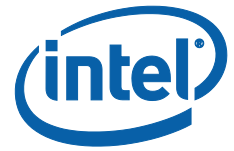
Intel® Platform Enablement Test Suite (Intel® PETS) for Lakefield Platforms

Installation and User Guide

Revision 9.1330.3.0

March 2020

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Revision History

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| 9.1330.3.0 | <ul style="list-style-type: none">• No changes. | March 2020 |
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§



1 Introduction

The purpose of this document is to describe the installation of Intel® Platform Enablement Test Suite (Intel® PETS).

1.1 Overview

This chapter provides a brief description of the Intel® Platform Enablement Test Suite. It contains the following sections:

- [Introduction to Intel® Platform Enablement Test Suite](#)
- [Package Contents](#)
- [Installation, Setup, and Testing Flow](#)

1.1.1 Introduction to Intel® Platform Enablement Test Suite

The Intel® Platform Enablement Test Suite is a one-stop GUI application for the comprehensive automated testing of Intel® ME firmware. The Intel® Platform Enablement Test Suite automates a large number of the tests in the Compliance Guide, significantly reducing testing time. The Intel® Platform Enablement Test Suite can be used by ODMs, and Intel testing teams.

The Intel® Platform Enablement Test Suite is run on a testing machine that has access, WLAN, to an Intel® ME System under Test (SUT), including its file system. The Intel® Platform Enablement Test Suite executes tests on the SUT and displays the test results, clearly indicating the tests that succeeded and those that failed.

For the tests that require the performance of power-related operations, the Intel® Platform Enablement Test Suite should be connected to the SUT through Intel® APS 3.x.

Testing Environment

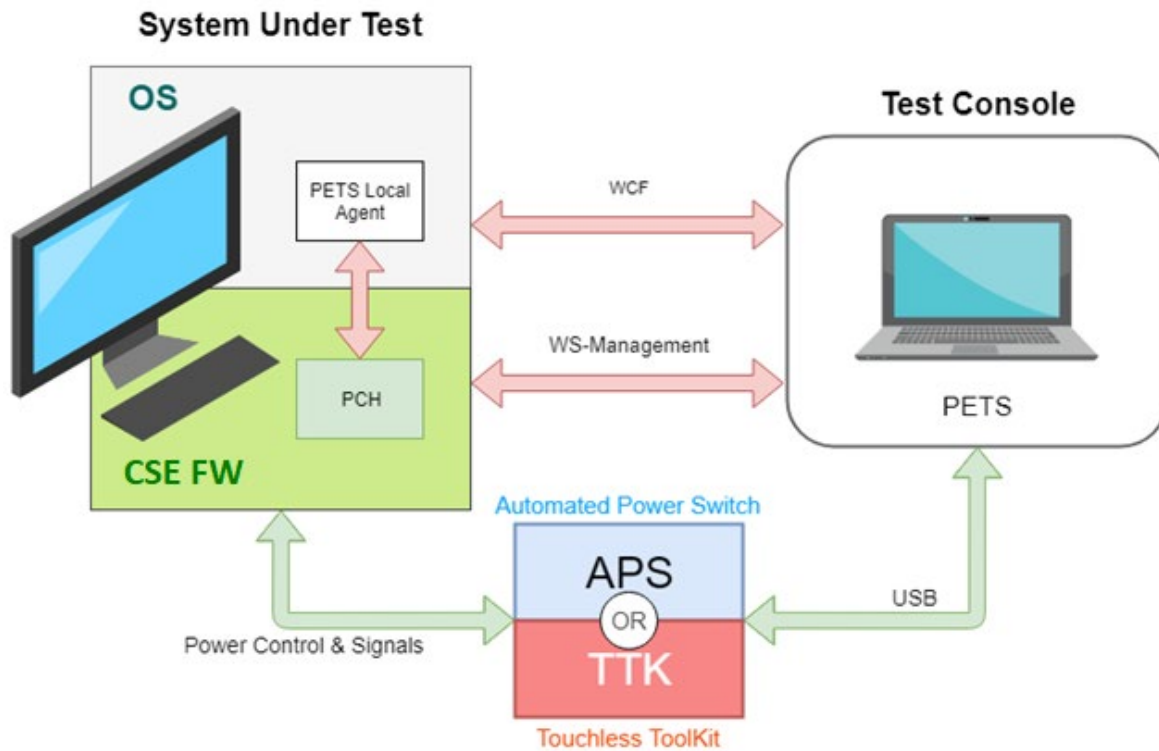


Figure 1-1: Testing Environment Diagram

1.1.2 Package Contents

The package contains the following:

- Intel® PETS application.
- Test Packages (including test sets, XMLs, and local agent).
- Documentation:
 - Intel® Platform Enablement Test Suite *Installation and User Guide* (this document).
 - Intel® APS SW User Guide.

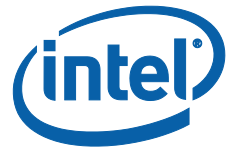
1.1.3 Installation, Setup, and Testing Flow

To be able to use the Intel® Platform Enablement Test Suite, follow these steps:

1. Check the requirements for the testing machine and for the SUT. For details, see [Chapter 2, "System Requirements"](#)



2. Install the Intel® Platform Enablement Test Suite on the testing machine. For details, see [Chapter 3, "Installation"](#).
3. Configure the connection of the Intel® Platform Enablement Test Suite with the "**System under Test**". For details, see [Chapter 4, "Defining an Intel® Platform for Testing"](#).
4. Run the "SetupEnvironmentTest" test package to validate all connections and their functionality. For details, see [Chapter 5, "Defining an Intel® Platform for Testing"](#).
5. Run tests. For details, see [Chapter 5, "Running Tests with Intel® Platform Enablement Test Suite"](#).
6. View Test Results. For details, see [Chapter 5.4, "Viewing, Saving, and Sending Test Reports"](#).
7. Adjust the package parameters of the test package where necessary. For details, see [Chapter 6, "Changing Package Parameters"](#).
8. Add unique SPI flash parts specifications to be checked during related tests. For details, see [Chapter 7, "Changing General Parameters"](#).



2 System Requirements

This chapter describes the requirements for installing and running the Intel® Platform Enablement Test Suite. The following topics are included:

- [Requirements for "System Under Test"](#).

2.1 Requirements for the "System Under Test"

This section describes the requirements for the system you are testing. The following table details the currently supported SUT platforms in Intel® PETS.

Refer to the latest Intel® PETS Release Notes for more information on Intel® PETS versions supporting current and legacy platforms.



| Platform | PCH | CPU | Intel® ME FW | Platform version in PETS SUT Creation wizard | OS Support |
|-----------------|-----|-----|-------------------|---|-----------------------------|
| Lakefield (LKF) | LKF | LKF | Intel® CSME 13.30 | ME13.30 | Windows* 10 Windows* 10X |

The following are requirements of the SUT:

- For Windows*10:
 - Where Console installed need .Net framework (downloadable from <http://www.microsoft.com/downloads/>).
 - Where Agent installed need both .Net Framework 4.7.2 and .Net core 3.0 (downloadable from <https://dotnet.microsoft.com/download>).
- For Windows*10X :
 - No installation requirements needed
- Intel® CSE drivers (Intel® Management Engine Interface (Intel® MEI), SPD, JHI, iCLS) must be installed on the platform from the firmware kit.
- Graphics driver that suits the video card.
- Wireless connection to the network (for applicable platforms only).

3 Installation

This chapter describes how to install “Intel® Platform Enablement Test Suite” and the “local agent”. The following topics are included:

- [Installing Intel® Platform Enablement test Suite](#)
- [Installing the Local Agent on Windows*](#)
- [Installing the Local Agent on Windows* 10X](#)
- [Uninstalling the Local Agent on Windows* 10X](#)
- [Installing and Uninstalling Intel® PETS in silent mode](#)

3.1 Installing Intel® Platform Enablement Test Suite

1. Verify that the testing computer meets the system requirements. For details, see [Testing Machine Requirements](#).
2. Make sure you are logged into the testing computer as an Administrator.
3. Extract the Intel® Platform Enablement Test Suite files to a folder on the testing computer.
4. Locate and double-click the installation file (**<installation package>\Console\PETSConsole.msi**) to launch the Intel® Platform Enablement Test Suite Install Shield Wizard.
5. Click **“Next”** in the Welcome screen.
6. Click **“I accept the terms of the license agreement”** and **“Next”** in the License Agreement screen.
7. Click **“Next”** in the Choose Destination Location screen to install Intel® Platform Enablement Test Suite in the default installation folder. To install in a different location, click **“Change”**. The default installation folder is **“C:\Program files\Intel\Intel(R) Platform Enablement Test Suite”**.
8. Click **“Next”** in the Setup Type screen.
9. Click **“Install”** in the **“Ready to Install the Program”** screen to begin installing Intel® Platform Enablement Test Suite; a progress bar appears showing the status of the installation.
10. Click **“Finish”** in the **“Install Shield Wizard Complete”** screen to exit Intel® Platform Enablement Test Suite Setup wizard.

3.2 Installing the Local Agent on Windows* 10

The local agent must be installed on each SUT.

To install the Local Agent:

1. Put the Intel® Platform Enablement Test Suite files on the SUT in one of the following ways:
 - Extract the Intel® Platform Enablement Test Suite files to a folder on the SUT.
 - Copy the PETSLocalAgent folder over to the SUT.
2. Locate and double-click this installation file on the SUT: **<installation package>\Agent\PETSLocalAgent.msi**
3. Configure the Windows* Event Viewer to Overwrite events as needed in the following way:
 - a. Choose **Control Panel > Administrative Tools > Event Viewer** to open the Event Viewer.

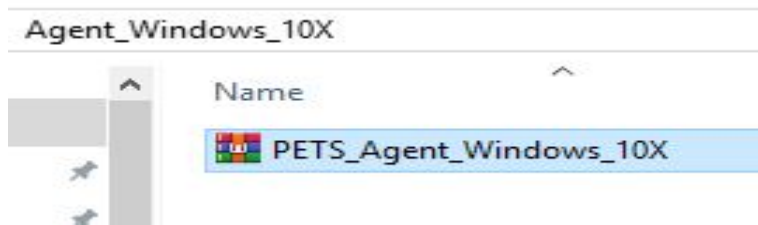
- b. Choose **Action > Properties** to open the Properties dialog.
- c. Select the **Overwrite events as needed** option and click **OK**.

Note: The **Overwrite events as needed** option is selected by default in Windows* 7 and Windows* 8 (SUT only).

3.3 Installing the Local Agent on Windows* 10X

3.3.1 To install the Local Agent:

1. Under Intel® PETS build find "PETS_Agent_Windows_10X" compressed folder under "Agent_Windows_10X" folder ,and extract its contents



2. Copy "Agent_Windows_10X" to the SUT using TShell putd command:

```

— Open-Device <IP-Address>

— cdd data/users/<user-name>/../

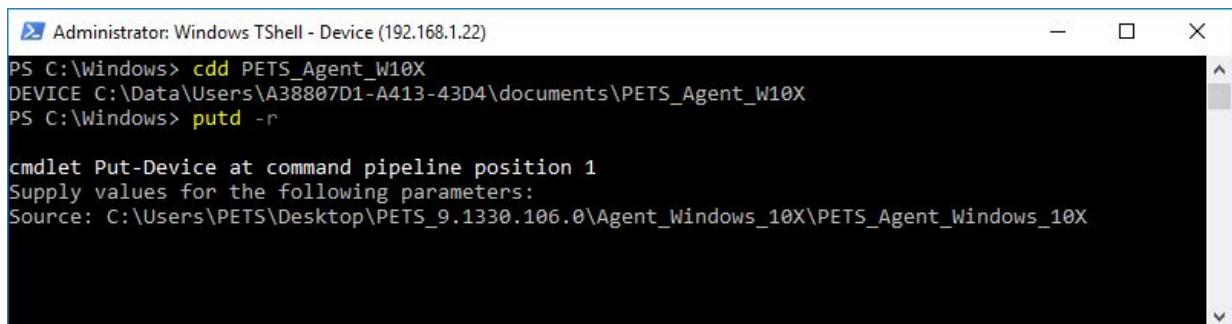
— mkdir PETS_Agent_W10X

— cdd PETS_Agent_W10X

— putd -r

```

Note: The command will ask the user to enter the source from which local agent files will be copied, " PETS_Agent_Windows_10X" path should be entered



```

Administrator: Windows TShell - Device (192.168.1.22)
PS C:\Windows> cdd PETS_Agent_W10X
DEVICE C:\Data\Users\A38807D1-A413-43D4\documents\PETS_Agent_W10X
PS C:\Windows> putd -r

cmdlet Put-Device at command pipeline position 1
Supply values for the following parameters:
Source: C:\Users\PETS\Desktop\PETS_9.1330.106.0\Agent_Windows_10X\PETS_Agent_Windows_10X

```

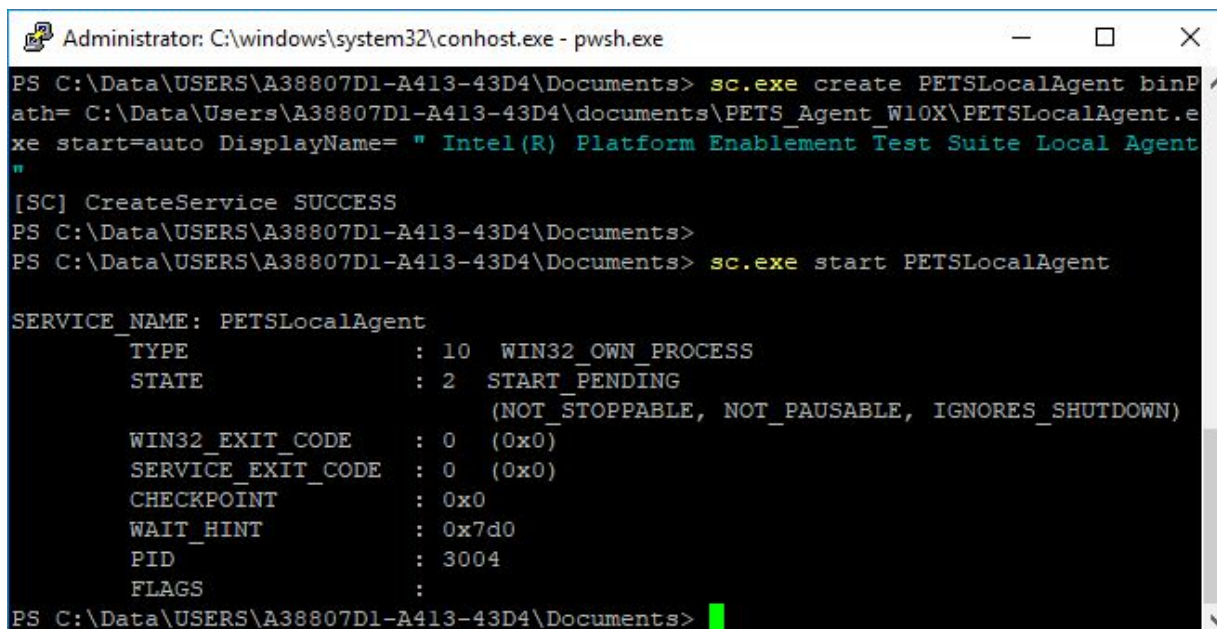
3. Create a service for PETSLocalAgent by running the following command in SSH:


```

"sc.exe create PETSLocalAgent binPath= C:\Data\Users\<user Name>\..\ PETSLocalAgent.exe start=auto Displayname= " Intel(R) Platform Enablement Test Suite Local Agent "

```
4. Start PETSLocalAgent Service by running:

"sc.exe start PETSLocalAgent binPath= C:\Data\Users



```

Administrator: C:\windows\system32\conhost.exe - pwsh.exe
PS C:\Data\USERS\A38807D1-A413-43D4\Documents> sc.exe create PETSLocalAgent binPath= C:\Data\Users\A38807D1-A413-43D4\documents\PETS_Agent_W10X\PETSLocalAgent.exe start=auto DisplayName= " Intel(R) Platform Enablement Test Suite Local Agent "
[SC] CreateService SUCCESS
PS C:\Data\USERS\A38807D1-A413-43D4\Documents>
PS C:\Data\USERS\A38807D1-A413-43D4\Documents> sc.exe start PETSLocalAgent

SERVICE_NAME: PETSLocalAgent
        TYPE               : 10        WIN32_OWN_PROCESS
        STATE                : 2         START_PENDING
                                (NOT_STOPPABLE, NOT_PAUSABLE, IGNORES_SHUTDOWN)
        WIN32_EXIT_CODE       : 0         (0x0)
        SERVICE_EXIT_CODE    : 0         (0x0)
        CHECKPOINT            : 0x0
        WAIT_HINT             : 0x7d0
        PID                  : 3004
        FLAGS                 :
PS C:\Data\USERS\A38807D1-A413-43D4\Documents>

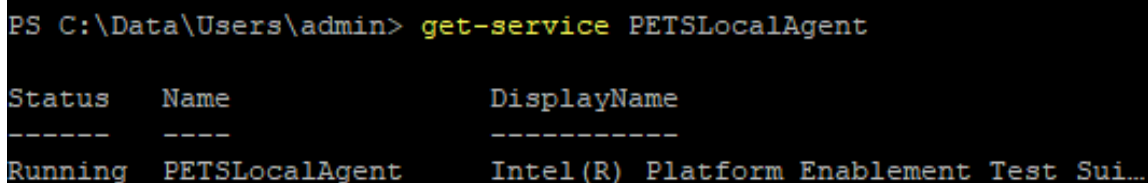
```

5. Set failure behavior for PETSLocalAgent Service by running:

"sc.exe failure PETSLocalAgent reset= 15 actions= restart/6000"

6. To check if PETSLocalAgent service is running on the system :

- a) Run "Get-Service" command in PowerShell to list all services on SUT and verify their statuses



```

PS C:\Data\Users\admin> get-service PETSLocalAgent

Status      Name                DisplayName
-----
Running     PETSLocalAgent      Intel(R) Platform Enablement Test Sui...

```

Or run "Get-Service PETSLocalAgent" to get only the service created for PETS Local Agent

- b) "Run Sc.exe query PETSLocalAgent"

```
Administrator: C:\windows\system32\conhost.exe - pwsh.exe

PID          : 3004
FLAGS        :
PS C:\Data\USERS\A38807D1-A413-43D4\Documents> sc.exe query PETSLocalAgent

SERVICE_NAME: PETSLocalAgent
        TYPE               : 10        WIN32_OWN_PROCESS
        STATE                : 4          RUNNING
                                (STOPPABLE, NOT_PAUSABLE, ACCEPTS_SHUTDOWN)
        WIN32_EXIT_CODE       : 0          (0x0)
        SERVICE_EXIT_CODE   : 0          (0x0)
        CHECKPOINT           : 0x0
        WAIT_HINT            : 0x0
PS C:\Data\USERS\A38807D1-A413-43D4\Documents>
```

3.3.2 Check Intel® PETS Connection:

After making sure that PETS Local Agent is installed successfully on SUT, Install Intel® PETS Console on the controller.

1. Create a new SUT using the username and password for the user account previously created.
2. Before testing connectivity make sure to run the following commands in SSH

a) Enable ME driver:

```
devcon enable "PCI\VEN_8086&DEV_98E0"
```

b) Enable pings:

```
netsh advfirewall firewall add rule name="ICMP Allow incoming V4 echo request" protocol=icmpv4:8,any dir=in
action=allow
```

c) Open port for PETS:

```
netsh advfirewall firewall add rule name="DNX Web Server port" dir=in action=allow protocol=TCP localport=12000
```

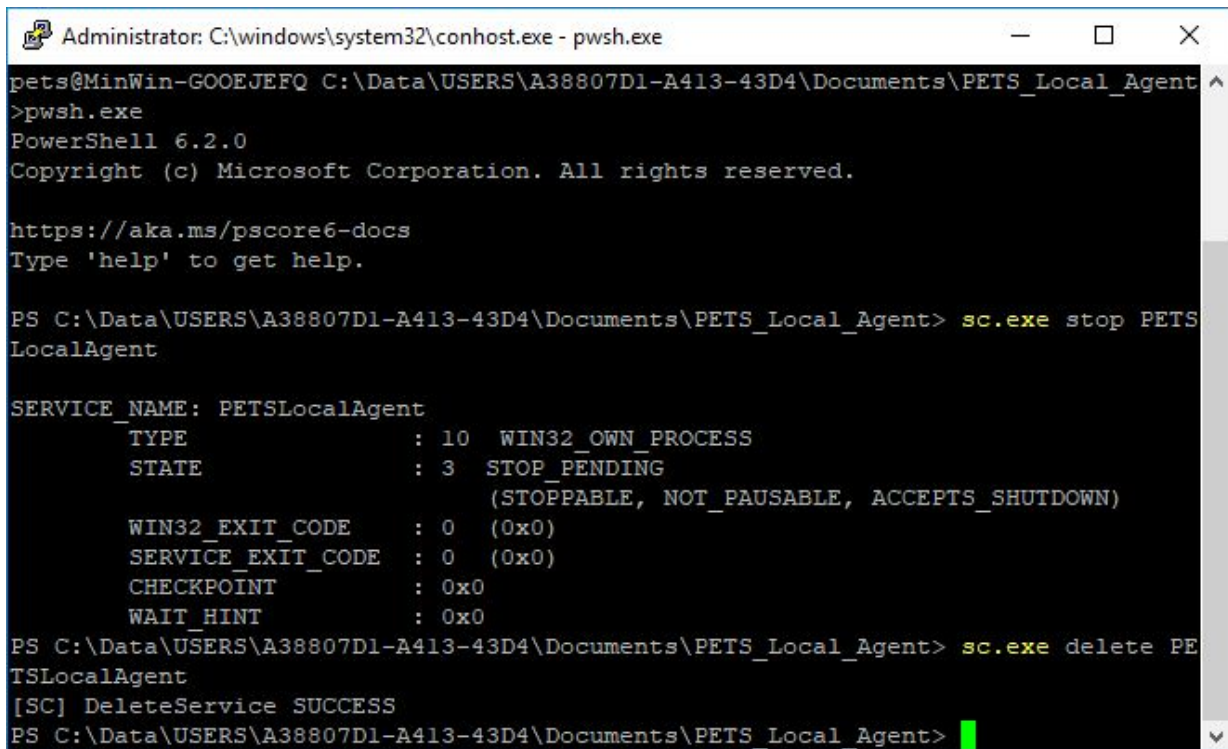
```
Administrator: C:\windows\system32\conhost.exe - pwsh.exe

PS C:\Data\USERS\A38807D1-A413-43D4\Documents> devcon enable "PCI\VEN_8086&DEV_98E0"
PCI\VEN_8086&DEV_98E0&SUBSYS_72708086&REV_10\3&11583659&0&B0: Enabled
1 device(s) are enabled.
PS C:\Data\USERS\A38807D1-A413-43D4\Documents> netsh advfirewall firewall add rule name="DNX Web Server port" dir=in action=allow protocol=TCP localport=12000
Ok.
PS C:\Data\USERS\A38807D1-A413-43D4\Documents> netsh advfirewall firewall add rule name="ICMP Allow incoming V4 echo request" protocol=icmpv4:8,any dir=in action=allow
Ok.
PS C:\Data\USERS\A38807D1-A413-43D4\Documents>
```

3.4 Uninstalling the Local Agent on Windows* 10X

3.4.1 To Uninstall the Local Agent:

1. To un-install PETS Local Agent, run the following commands via Powershell:
 - `sc.exe stop PETSLocalAgent`
 - `sc.exe delete PETSLocalAgent`
2. Then related files and folders can be simply deleted from SUT directory where they were placed.



```

Administrator: C:\windows\system32\conhost.exe - pwsh.exe
pets@MinWin-GOOEJEFQ C:\Data\USERS\A38807D1-A413-43D4\Documents\PETS_Local_Agent
>pwsh.exe
PowerShell 6.2.0
Copyright (c) Microsoft Corporation. All rights reserved.

https://aka.ms/powershell-docs
Type 'help' to get help.

PS C:\Data\USERS\A38807D1-A413-43D4\Documents\PETS_Local_Agent> sc.exe stop PETS
LocalAgent

SERVICE_NAME: PETSLocalAgent
        TYPE               : 10    WIN32_OWN_PROCESS
        STATE                : 3     STOP_PENDING
                           (STOPPABLE, NOT_PAUSABLE, ACCEPTS_SHUTDOWN)
        WIN32_EXIT_CODE       : 0     (0x0)
        SERVICE_EXIT_CODE   : 0     (0x0)
        CHECKPOINT           : 0x0
        WAIT_HINT            : 0x0

PS C:\Data\USERS\A38807D1-A413-43D4\Documents\PETS_Local_Agent> sc.exe delete PE
TSLocalAgent
[SC] DeleteService SUCCESS
PS C:\Data\USERS\A38807D1-A413-43D4\Documents\PETS_Local_Agent>
  
```

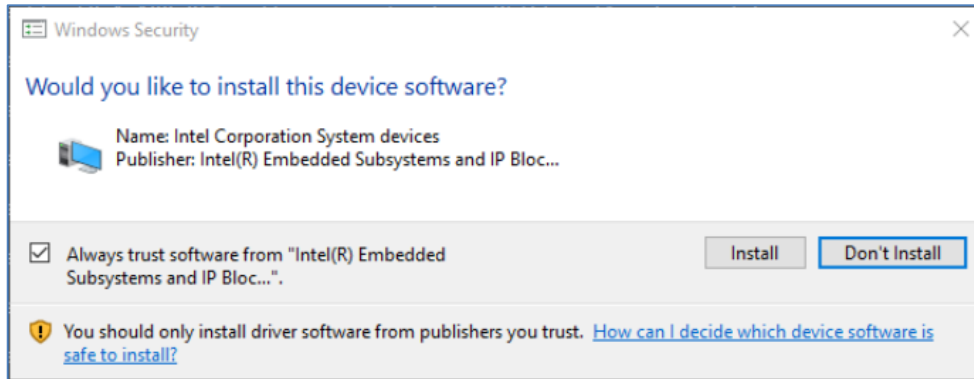
3.5 Installing and Uninstalling Intel® PETS in silent mode

To install Intel® PETS Console in silent mode, navigate to the Console folder in the downloaded Intel® PETS kit and run the following command "**msiexec /i PETSConsole.msi /qn**", where:

- **/i** parameter for installing the specified .msi file.
- **/qn** parameter for a silent installation that displays no user interface.

To install Intel® PETS Local Agent in silent mode, navigate to the *Agent* folder in the downloaded Intel® PETS kit and run the following command "**msiexec /i PETSLocalAgent.msi /qn**"

Note: The following dialog appears requesting confirmation from the user only for first time installation of Intel® PETS agent on a clean OS:



To uninstall Intel® PETS Console in silent mode, navigate to the *Console* folder in the downloaded Intel® PETS kit and run the following command "**msiexec /x PETSConsole.msi /qn**", where:

- **/x** parameter for uninstalling the specified .msi file.

To uninstall Intel® PETS Agent in silent mode navigate to the *Agent* folder in the downloaded Intel® PETS kit and run the following command "**msiexec /x PETSlocalAgent.msi /qn**".

3.6 Post Installation Verification (Intel® APS)

After you have installed and set up Intel® Platform Enablement Test Suite with Intel® APS, you can use Intel® APS Software to verify that the Intel® APS is properly connected by performing power transitions on the SUT.

4 Defining an Intel Platform for Testing

This chapter describes how to define an Intel platform for testing by the Intel® Platform Enablement Test Suite. This must be done before running tests on that platform.

This chapter covers the following topics:

- [Opening Intel® Platform Enablement Test Suite](#)
- [Opening Intel® Platform Enablement Test Suite from the Command Line](#)
- [Defining the Intel® System Under Test](#)
- [Systems Under Test Dialog](#)
- [Testing the SUT Configuration](#)

To configure Intel® Platform Enablement Test Suite, perform the following:

1. Open Intel® Platform Enablement Test Suite.
2. Configure the system under test (SUT) by defining its parameters.
3. Test the connectivity with the SUT.
4. Test the setup of the SUT.

Note: You should also run the connectivity and setup tests whenever there is a change in the environment (e.g., you select another SUT to be tested).

4.1 Opening Intel® Platform Enablement Test Suite

Choose **Start > Programs > Intel > Intel® Platform Enablement Test Suite**; the Intel® Platform Enablement Test Suite window appears.

4.2 Opening Intel® Platform Enablement Test Suite from the Command Line

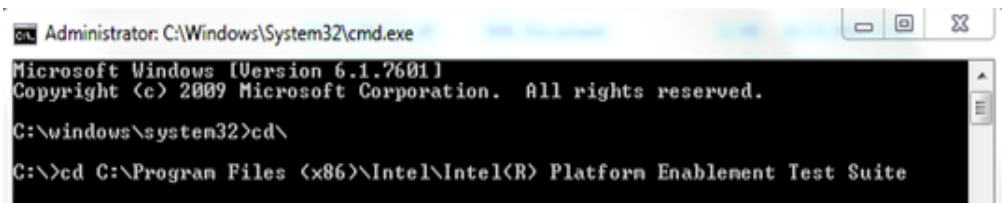
4.2.1 Command line for semi-automated tests

Using the help option “-?” will list all the supported options:

- Run and Close.
- Open package in GUI.

Follow these guidelines to run those tests using the Command Line:

1. Open a new command line window as an administrator.
2. Navigate to the PETS installation director



```
Administrator: C:\Windows\System32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\windows\system32>cd\
C:\>cd C:\Program Files (x86)\Intel\Intel(R) Platform Enablement Test Suite
```

3. Type one of the following commands:

a. For **Run and Close** test:

`Run_PETS.bat -run -package "full package path" -sut "SUT Name in PETS".`

b. For **Open package in GUI** test:

`Run_PETS.bat -Open -package "full package path" -sut "SUT Name in PETS".`

Where:

- The "**full package path**" is the full path for the package you want to run.
- The "**SUT Name in PETS**" is the name of the SUT that you should define in PETS before you run the test. This SUT can only be defined in the GUI mode (but not in the command line mode).

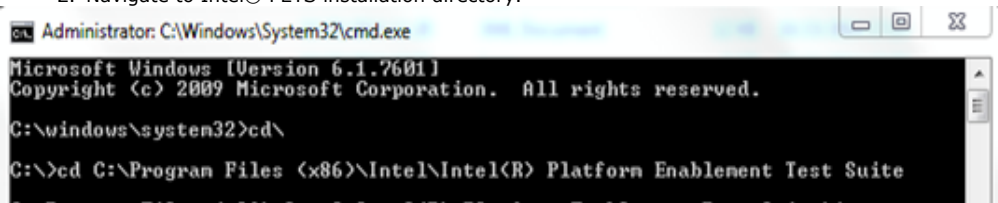
Intel® PETS runs and closes automatically when execution finishes. If all the tests pass, an Exit Code of 0 is returned. If one or more tests fail, the Exit Code is 1, and if there is a configuration error, the Exit Code is -1. For example:

If you have a package on the C drive named **tests.xml** and you have defined a SUT in PETS with the name **skl**, then type the following command to run your package: **Run_PETS.bat -run -package "C:\tests.xml" -sut "SUT"**. Press <Enter> to begin execution.

4.2.2 Command line for automated tests

CLI for automated tests runs the tests in silent mode. It can be launched by following these steps:

1. Open a new command line window as an administrator.
2. Navigate to Intel® PETS installation directory.



```
Administrator: C:\Windows\System32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\windows\system32>cd\
C:\>cd C:\Program Files (x86)\Intel\Intel(R) Platform Enablement Test Suite
```

3. Type the following command to get usage: **PETSCommandLine.exe -?** Or **PETSCommandLine.exe -help**

4.2.2.1 The command line syntax for Intel® PETS executable

PETSCommandLine.exe [-? | -help] [-sutimport "SUT file path"] [-suts] [-sutsettings -sutselect "name of sut"] [-sutinfo -sutselect "name of sut"] [-testconn -sutselect "name of sut"] [-testmeconn -sutselect "name of sut"] [-getdeepxs -sutselect "name of sut"] [-package "package file path" -tests] [-package "package file path" -teststeps "test name"] [-package "package file path" -tests -sutselect "name of sut" -run] [-package "package file path" -sutselect "name of sut" -runtest "test name"] [-package "package file path" -sutselect "name of sut" -testcase "test name" -runsubtest "sub test name"] [-repeat "number of times to run the test"] [-failurebehavior "behavior when test fail"] [-htmllog] [-spreadsheet]

| Option | Description | How to use? |
|---|---|--|
| -?/-help | Displays all the arguments supported in PETS CLI. | -? Or -help |
| -sutimport | Imports any SUT file to Intel® PETS. | -sutimport "SUT file path" |
| -suts | Displays all SUTs in the DefaultSut.xml file. | -suts |
| -sutsettings | Displays SUT information, platform version, type, SKU and network, Intel® ME FW version, Power, and features that are enabled. | -sutsettings -sutselect "SUT Name" |
| -sutinfo | Retrieves the following information about the SUT: Firmware, MEBx, LMS, BIOS, MEI Driver, GFX Driver, and Configuration State. | -sutinfo -sutselect "SUT Name" |
| -testconn | Tests the connectivity with Local Agent, that includes: 1. Ping Local Agent. 2. Verify communication with Local Agent. 3. Local agent version matches to PETS version. | -testconn -sutselect "SUT Name" |
| -testmeconn | Tests Intel® ME connectivity. | -testmeconn -sutselect "SUT Name" |
| -getdeepsex | Gets the DeepSx configuration from BIOS and saves the setting in DefaultSut.xml. | -getdeepsex -sutselect "SUT Name" |
| -tests⁽¹⁾ | Prints all test within the selected package. | -package "Path\PackageName.xml" -tests |
| -teststeps⁽¹⁾ | Prints all test steps within a test in the selected package. | -package "Path\PackageName.xml" -teststeps "Test Name" |
| -run⁽¹⁾ | Runs all tests within the selected package. | -package "Path\PackageName.xml" -sutselect "SUT Name" -run |
| -runtest⁽¹⁾ | Runs the selected test. | -package "Path\PackageName.xml" -sutselect "SUT Name" -runtest "Test Name" |
| -runsubtest⁽¹⁾ | Runs the selected subtest. | -package "Path\PackageName.xml" -sutselect "SUT Name" -testcase "Test Name" -runsubtest "SubTest Name" |
| -repeat⁽¹⁾ | Runs the selected Package/Test/Subtest more than 1 time (depends on user decision). | 1. -package "Path\PackageName.xml" -sutselect "SUT Name" -run -repeat 2 2. -package "Path\PackageName.xml" -sutselect "SUT Name" -runtest "Test Name" -repeat 2 3. -package "Path\PackageName.xml" -sutselect "SUT Name" -testcase "Test Name" -runsubtest "SubTest Name" -repeat 2 |
| -failurebehavior^{(1) (2)} | Decides the behavior upon failure of a subtest, a test, a package. | 1. -package "Path\PackageName.xml" -sutselect "SUT Name" -run -failurebehavior "NextTest" 2. -package "Path\PackageName.xml" -sutselect "SUT Name" -runtest "Test Name" -failurebehavior "NextSubTest" 3. -package "Path\PackageName.xml" -sutselect "SUT Name" -testcase "Test Name" -runsubtest "SubTest Name" -failurebehavior "NextStep" |
| -htmllog^{(1) (3) (4)} | Creates the HTML log for the running Package/Test/Subtest. | -package "Path\PackageName.xml" -sutselect "SUT Name" -run -htmllog -logspath "Path\LogFolder" |
| -spreadsheet^{(1) (3) (4)} | Create the spreadsheet for the running Package/ Test/ Subtest. | -package "Path\PackageName.xml" -sutselect "SUT Name" -run -spreadsheet -logspath "Path\LogFolder" |

⁽¹⁾ If Path was not provided as "Path\PackageName.xml", write only "PackageName.xml" the path will be the default folder as defined in SUT, example: ME\CNL\Windows\Consumer\Mobile\Wired_Only

⁽²⁾ - Failure behaviors supported for running package are: NextStep, NextSubTest, NextIteration, NextTest, Stop
- Failure behaviors supported for running subtest are: NextStep, NextIteration, Stop
- Failure behaviors supported for running test are: NextStep, NextSubTest, NextIteration, Stop

⁽³⁾ htmllog and -spreadsheet commands can be used together

⁽⁴⁾ If the path was not provided as "Path\LogFolder", the logs will be saved in "PETS root\Logs\Log_XMLs"

4.2.2.2 Exit Codes

CLI returns 3 exit codes as follows:

| | |
|----|-------------------------------|
| 0 | Test passed/command succeeded |
| 1 | Test Failed |
| -1 | Error occurred |

4.3 Defining the Intel® System Under Test

An Intel® SUT is an Intel platform that was defined for testing by the Intel® Platform Enablement Test Suite. In order to run a test package:


- An Intel® CSE platform must be defined as a SUT in the Systems Under Test dialog.
- A SUT must be selected for testing from the drop-down list of SUTs in the Intel® Platform Enablement Test Suite window's toolbar's Platform field ().

You can only test one SUT at a time even if more than one SUT has been defined or imported for testing. The Platform field displays the name of the SUT being tested. All the SUTs that are available for testing by Intel® Platform Enablement Test Suite are listed in the Platform field's drop-down list. If the Platform field is empty, a SUT has not yet been defined or imported for testing.

If the wrong SUT is displayed in the Platform field, you can select a different SUT from the Platform field's drop-down list. If the correct SUT is not listed there, you can use the Systems Under Test dialog to add or import the correct SUT. The names of all the SUTs that have been defined or imported for testing in the Intel® Platform Enablement Test Suite are saved in the default SUT file (**defaultSut.xml**).

4.4 Systems Under Test Dialog

You can open the Systems Under Test dialog in the following ways:

- Select **SUT Management** from the drop-down list in the Platform field.
- Choose **Settings > Systems Under Test**.
- Click the Platform button () in the toolbar.]

The Systems Under Test dialog has up to seven tabs. Each tab defines a different set of parameters:

- SUT Overview - general data about SUT; Systems Under Test dialog opens to this tab by default.
- General Host Settings - contains the information used by the Intel® Platform Enablement Test Suite to connect to the local agent on the SUT.
- Intel® APS Settings - selects and configures the SUT's power provider.
- Power Settings - power settings of the SUT.
- System Information - displays the SUT's ME Information.

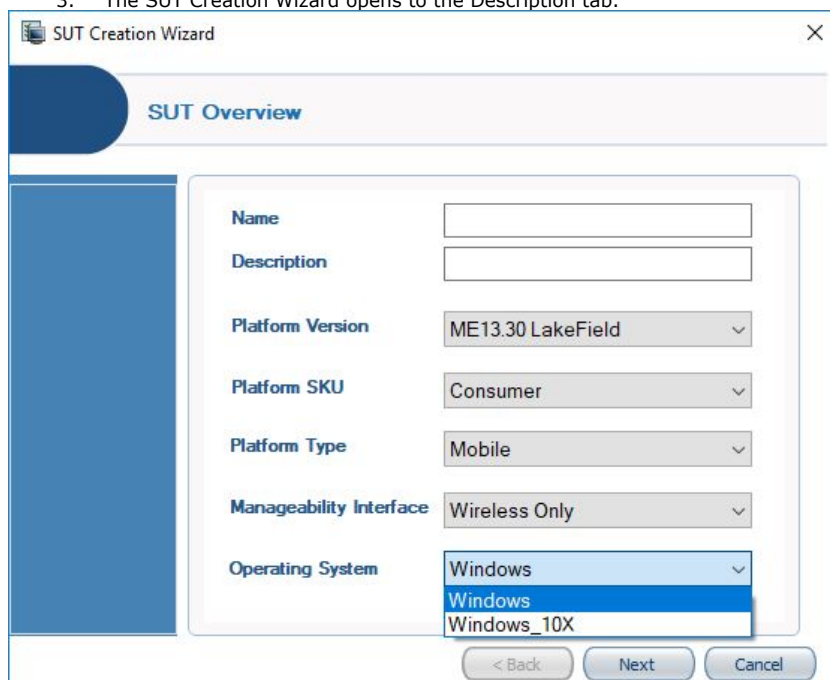
You can do the following in the Systems Under Test dialog:

- Add a new SUT to the Intel® Platform Enablement Test Suite and define its parameters.
- Select an already-defined SUT.
- Import an existing SUT definitions file.
- Redefine the parameters of an already-defined SUT.
- Delete a SUT from Intel® Platform Enablement Test Suite.
- Export the SUT definitions to a file.
- Check if the Intel® Platform Enablement Test Suite is properly connected to the SUT.

4.4.1 Adding and Defining a SUT

To add a SUT and define its security settings:

1. Open the Systems Under Test dialog. The Systems Under Test wizard opens.
2. Click the New button.
3. The SUT Creation Wizard opens to the Description tab.



The screenshot shows the 'SUT Creation Wizard' dialog box, specifically the 'SUT Overview' tab. The dialog has a title bar with a close button (X). The main area contains several input fields and dropdown menus for defining the SUT:

- Name:** A text input field.
- Description:** A text input field.
- Platform Version:** A dropdown menu with 'ME13.30 LakeField' selected.
- Platform SKU:** A dropdown menu with 'Consumer' selected.
- Platform Type:** A dropdown menu with 'Mobile' selected.
- Manageability Interface:** A dropdown menu with 'Wireless Only' selected.
- Operating System:** A dropdown menu with 'Windows' selected. The dropdown is open, showing 'Windows' and 'Windows_10X' as options.

At the bottom of the dialog are three buttons: '< Back', 'Next', and 'Cancel'.

Note: Simple SUT is appropriate when you want to work with a SUT regardless of its firmware, for example, if your tests are not related to a specific firmware feature. Simple SUT is a one-step wizard that only asks for operating system information

4. Enter data about the SUT into the following fields:
 - **Name**
 - **Description**
5. Click **Next**; the following General Host Settings dialog appears:

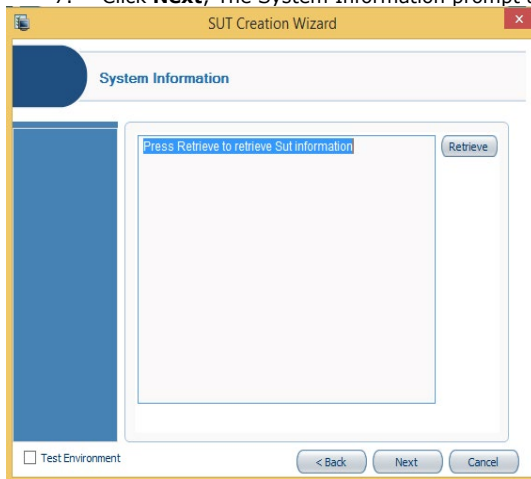
6. Enter data into the following fields:
 - **User Name:** OS user name.
 - **Password:** OS password.
 - **WLAN IPv4 (WLAN IPV4):** IP address of the SUT's operating system.
 - **Port Number:** The port that the local agent listens on. If this port is used by another application, you need to change the port number. To change the local agent's port number, open the **PETSlocalagnet.exe.config** file in the installation directory and change the **address** field so it contains the new port number. For example, to change the port to 60000, change the address line from **<add key="address" value="net.tcp://localhost:12000" />** to **<add key="address" value="net.tcp://localhost:60000" />**
The default port for Windows* is 12000
 - **WLAN MAC address (WLAN MAC address):** WLAN card MAC address for magic packet; either enter manually or press **Retrieve**.
 - **Test connectivity with Local agent:** Clicking this option verifies whether the Intel® Platform Enablement Test Suite is able to connect with the PETS local agent on the SUT host and displays a dialog of Local Agent Connectivity Results.



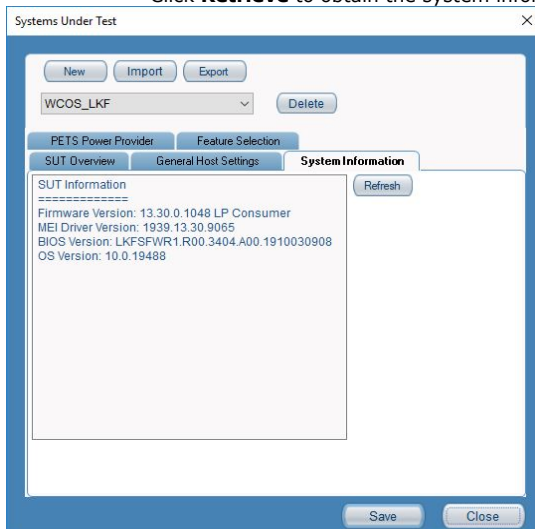
- **Test Environment:** If checked, on each screen in the SUT wizard flow where there is a test button, the test will be run before the **Next** button flow is executed. If unchecked, at the end of the wizard flow, the System Information tab will not be updated with data, until Refresh is pressed.

Note: The example screens shown in the following steps are for an ME test platform.

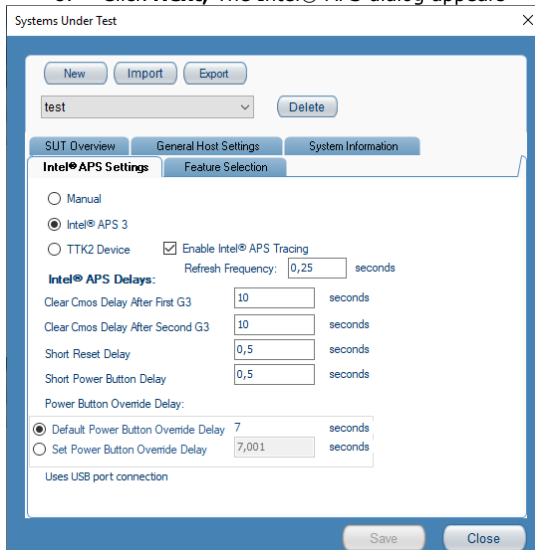
7. Click **Next**; The System Information prompt appears.



- Click **Retrieve** to obtain the system information.



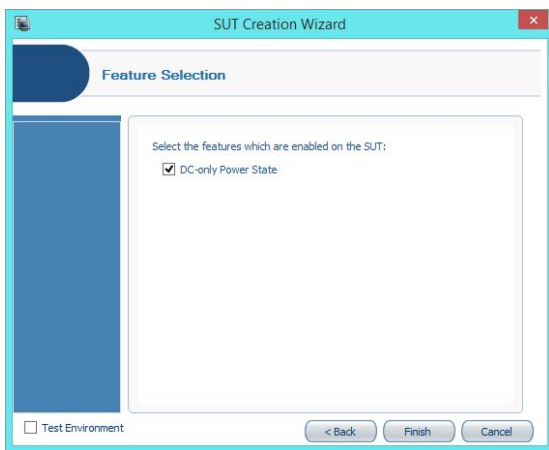
8. Click **Next**; The Intel® APS dialog appears



In the Intel® APS Settings dialog, select the appropriate options to configure the Intel® APS delays. The fields can be understood as follows:

- Enable Intel® APS Tracing:
 - When selected, PETS starts logging every change to Intel® APS (e.g. system power state / ME state / Power source). The changes are included in the test's execution report.
- Refresh Frequency:
 - This field is enabled when the user checks the "Enable Intel® APS Tracing" option and specifies the time period in which PETS will check for APS changes.
- Intel® APS Delays:
 - Short Reset Delay: defines how long the delay takes to perform a Reset (in seconds).
 - Short Power Button Delay: defines how long the delay takes to perform a power button (in seconds).
 - Power Button Override Delay:
 - Default Power Button Override Delay: if it is selected, the power button override delay (in secs) will be the default value (APS default value) which is 7.
 - Set Power Button Override Delay: if it is selected, the power button override delay will be the value that the user enters (in seconds).

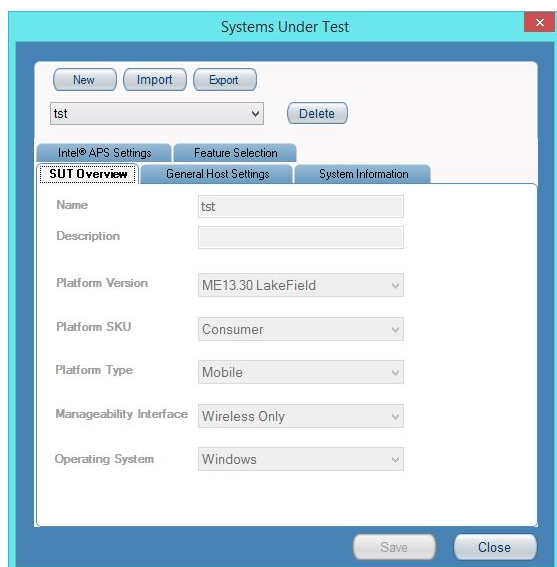
9. Click **Next**; The feature selection dialog appears. In this dialog, select the feature(s) that are enabled on the SUT.



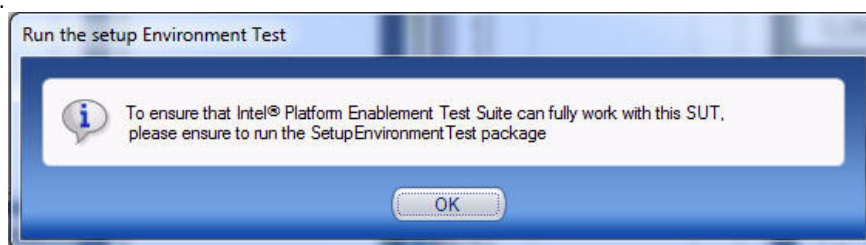
Note: The option DC-only Power State is selected by default which causes its related tests to be displayed in Intel® PETS, in case the machine does not support this option, it is recommended to uncheck it in order to hide the related tests.

Note: Pointing the mouse icon at any feature displays a tooltip with a brief description of the selected feature.

10. Click **Finish**; the following information screen appears providing current Intel® CSE information for the newly defined SUT.



- Note:**
11. Click the **Save** button to save the information entered to the SUT dialog into the Platform information file. The information entered into the dialog only becomes active after being saved.
 12. Click the **Close** button; the SUT dialog closes and the system prompts you to run the Intel® Platform Enablement Test Suite.



13. Click **OK**; "Run the setup Environment Test" prompt disappears and the Wizard closes.
14. Run the setup test package to check if the SUT was configured correctly. (For more details, see ["Testing the Configuration of the SUT"](#).)

4.4.2 Selecting a Previously-Defined SUT

The SUTs that are listed in the drop-down list of SUTs at the top of the Systems Under Test dialog have already been defined.

To select an already-defined SUT:

Select one of the SUTs listed in the drop-down list of SUTs; the values of the parameters of the selected SUT appear in the Systems Under Test dialog's fields, where they can be viewed and changed.

- Note:** If you do not click the **Save** button before selecting another SUT, any changes you made to the definition of the current SUT will be lost.

4.4.3 Modifying the Definitions of a SUT

You can modify the contents of any field in any tab of the Systems Under Test dialog.

- Note:** You cannot change any of the settings in the Description tab. If you need to change them, delete the SUT and define a new SUT with the desired settings.



To modify an already-defined SUT:

1. Select the SUT you want to modify from the drop-down SUT list; the dialog's fields and tabs are populated with the selected SUT's data.
2. Make the relevant changes to the contents of the dialog's fields.
3. Click **Save**.

4.4.4 Saving the SUT Defined Parameters

After filling in all the relevant fields and tabs in the Systems Under Test dialog:

1. Click **Save** to apply all your changes.
2. Click **Close** to close the dialog; the names of all of the defined SUTs appear in the Platform field's drop-down list in the Intel® Platform Enablement Test Suite window.

4.4.5 Importing a SUT Definition File

1. Click on the **Import** button; the Import SUT file dialog appears.
2. Select a SUT file and click **Open**; the imported SUT is listed in the SUT drop-down list and its definitions appear in the Systems Under Test dialog's fields.

4.4.6 Deleting a SUT from Intel® Platform Enablement Test Suite

To delete a SUT from the Intel® Platform Enablement Test Suite:

1. Select one of the SUTs listed in the drop-down SUT list.
2. Click the **Delete** button; then "Are you sure you want to delete this SUT" confirmation prompt appears.
3. Click **Yes**; the definitions of the deleted SUT disappear from the Systems Under Test dialog's fields.

4.4.7 Exporting SUT Definitions to a Definition File

To export SUT definitions:

1. Select a SUT listed in the drop-down SUT list.
2. Click the **Export** button; the Save As dialog appears.
3. Enter the name of the definitions file into the **File Name** field and click **Save**.
4. Intel® Platform Enablement Test Suite populates the definitions that you have entered into the *Add New SUT* dialog.

4.5 Testing the SUT Configuration

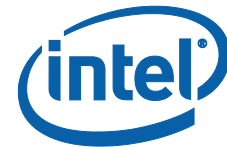
The Setup Environment test package checks if the SUT was configured correctly. If the SUT passes all the tests in this package, it is configured correctly and other test packages can be run on it. If the SUT fails a test, check which test or test step fails in order to know how to reconfigure the SUT correctly.

The setup Environment test package file name is "SetupEnvironmentTest.xml". Loading and running this test package in Intel® Platform Enablement Test Suite Setup has the same procedure of loading and running any other test package. (For more information, see ["Configuring the Tests in the Test Pane"](#) and ["Configuring a Test Package"](#).)

Note: Running the setup environment test package is optional but highly recommended to be run before running other PETS general test packages.

4.5.1 Testing the Configuration of the SUT

| Test Name | Description |
|---|---|
| Local agent and SUT connectivity setup | The test checks connectivity between the console and the local agent (SUT) through: <ol style="list-style-type: none">1. Verifying PETS agent version.2. Retrieving ME information from PETS agent. |
| Check S0IX | Checks modern standby mode |
| Check OS Hibernate | Checks Hibernate Cycle |
| Check OS Shutdown | Checks Shutdown Cycle |
| Check DC Power | Checks the Battery Connectivity to the SUT |
| Check AC Power | Checks the Power Connectivity to the SUT |
| Check G3 State | Checks the Power Loss |
| OS Configuration Checks | Checks the basic Operating System Configurations on MC and the SUT |



5 Running Tests with Intel® Platform Enablement Test Suite

This chapter describes how to use the Intel® Platform Enablement Test Suite to run tests on an SUT. The following topics are included:

- [Configuring a Test Package](#)
- [Viewing Intel® APS Controls](#)
- [Running Tests](#)
- [Viewing, Saving, and Sending Test Reports](#)
- [Using the Compliancy Guide](#)

5.1 Configuring a Test Package

The Intel® Platform Enablement Test Suite is supplied with one or more test packages. Each test package contains the XML files that define its tests. All test packages must be loaded into Intel® Platform Enablement Test Suite. Each test package - including its tests and test steps - are already configured with default values that can be changed in the Intel® Platform Enablement Test Suite.

5.1.1 Loading a Test Package

Intel® PETS is able to open the correct packages' sub-folder based on the SUT settings.

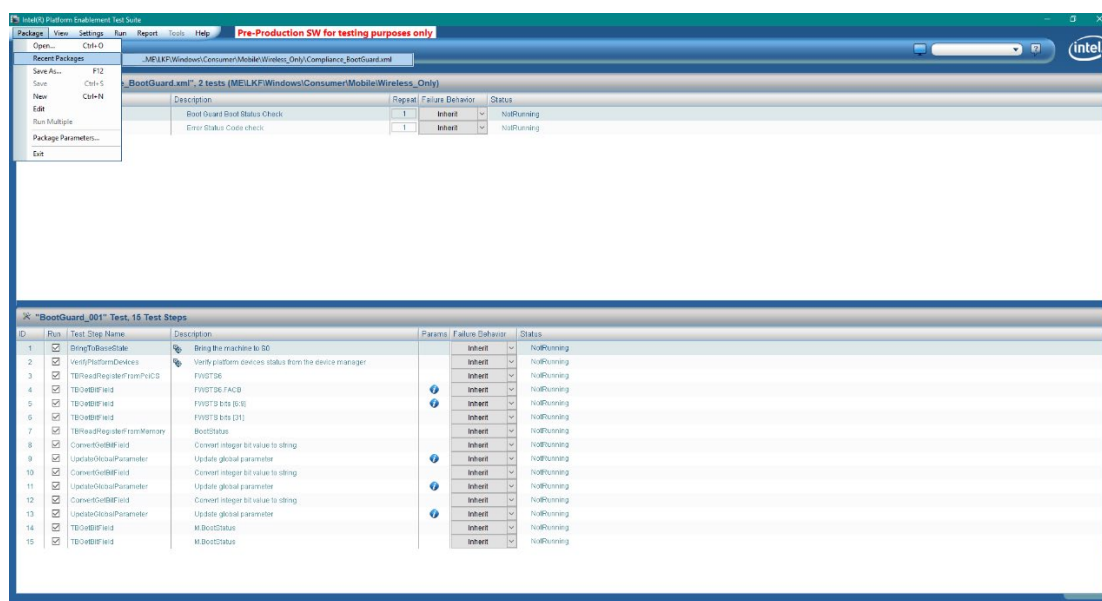
1. Choose **Package > Open**; the *Open Intel® PETS Package* dialog appears, displaying the contents of the folder **<Intel® Platform Enablement Test Suite folder>\Packages>** depending on the SUT configurations.
2. Select the test package that is appropriate for the SUT. The name of the selected test package and the number of tests it contains appear in the Intel® Platform Enablement Test Suite window above a list of tests in the package.

Note: The package's test names map directly to tests that are listed in your platform's Compliancy Requirements and Testing Guide, which contains a detailed description of each test (with the exception of the Validation package tests, which do not appear in the Guide). Each Test Name maps to the test ID of a test in the Compliancy Requirements and Testing Guide.

5.1.2 Opening a Recent Package

The Intel® Platform Enablement Test Suite allows you to select a package from a list of the 10 most recently opened packages.

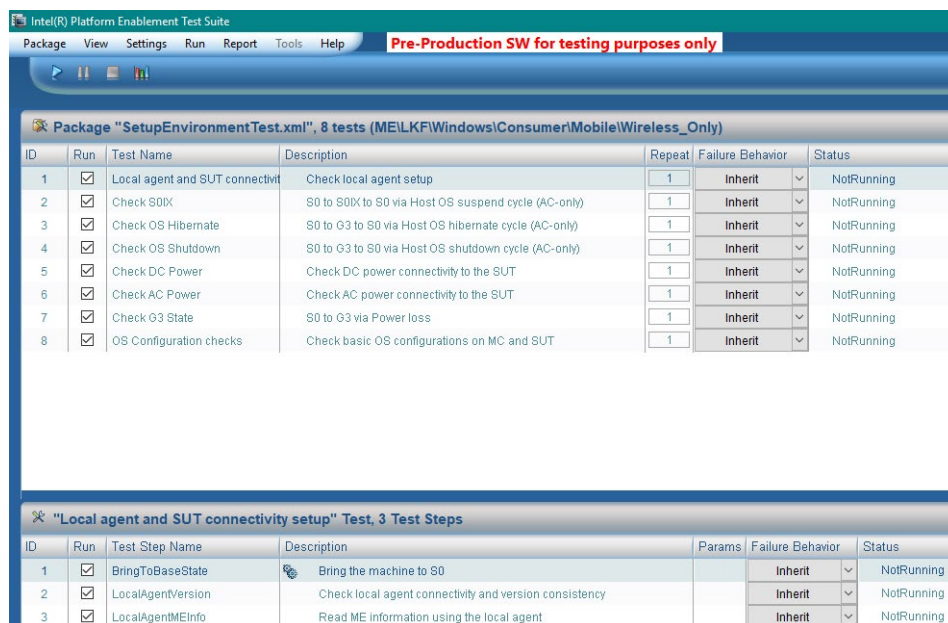
1. Choose **Package > Recent Packages**; a list of the 10 most recently opened packages appears.



2. Select the package you wish to open from the list.


5.1.3 Using the Intel® Platform Enablement Test Suite Window

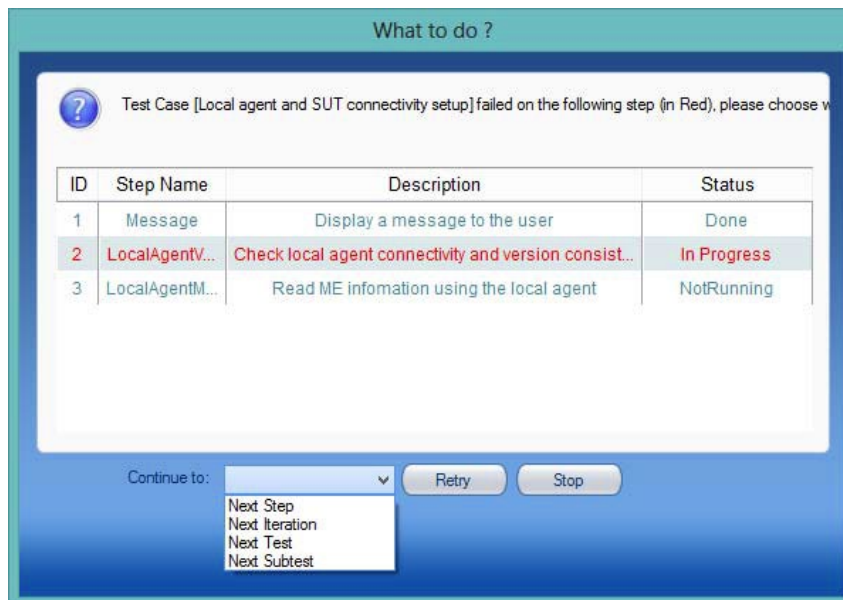
The Intel® Platform Enablement Test Suite displays the tests in the loaded test package by default.



The Intel® Platform Enablement Test Suite displays the following information about each test/test step:

- **Test Name:** Name of the test/test step as it appears in the relevant Compliance Requirements and Testing Guide
- **Description:** Description of the test/test step's functionality. The icon next to the description shows what is being tested and how:
 - - Setup test – A test that configures the SUT in preparation for an upcoming test.

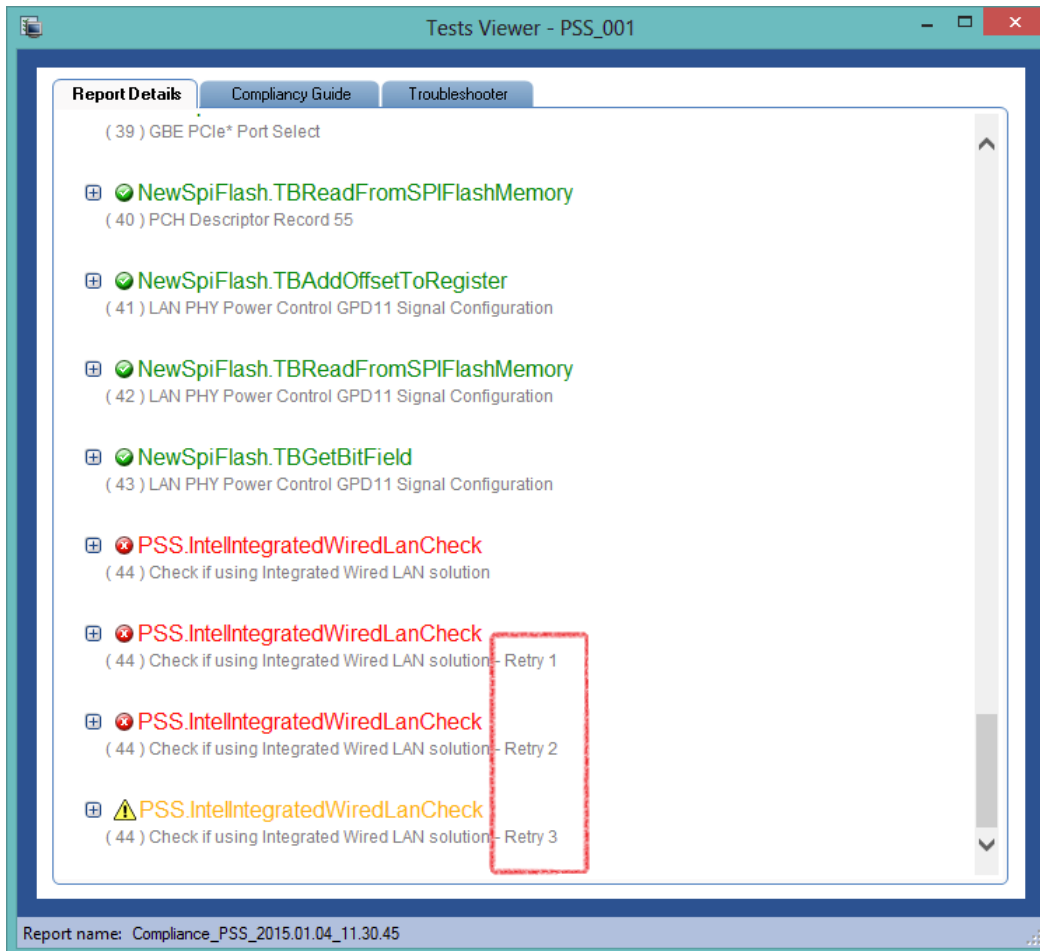
-  - A test with manual steps.
- **Repeat:** Number of cycles of test repetition before the next test in the package is to be run (tests only).
- **Failure Behavior:** How Intel® Platform Enablement Test Suite responds to the failure of a test package, test, or test step:
 - **Next step** - If a test step fails, Intel® Platform Enablement Test Suite runs the following step in the test.
 - **Next Subtest** - If one of the test steps failed and there exists other subtests in the test, the next subtest is executed.
 - **Next iteration** - If a test fails, Intel® Platform Enablement Test Suite runs the next iteration of the same test. If the last iteration of the test that fails, Intel® Platform Enablement Test Suite runs the next test.
 - **Next test** - If a test or test step fails, Intel® Platform Enablement Test Suite runs the next test instead of continuing to run any more of the failed test's test steps or iterations (This is the default failure behavior option for test packages).
 - **Stop** - If a test or test step fails, Intel® Platform Enablement Test Suite stops running that test package.
 - **Inherit** - Inherits the failure behavior of the level above (i.e., a test inherits the failure behavior of its test package and a test step inherits the failure behavior of its test).
 - **Manual** - Upon failure, choosing this failure behavior will allow the user to control the failure/recovery process by showing the following dialog:



The example screen shows the failing test step highlighted in red, and the test steps above and below it as well. The user can choose one of the following options:






- **Continue to** and select one of the following options:
 - **Next Step** - The current step is marked as passed with a warning, and the next test step is executed.
 - **Next Iteration** - The current step is marked as passed with a warning, and the next test iteration is executed.
 - **Next Test** - The current step is marked as passed with a warning, and the next test is executed.
 - **Next Subtest** - The current step is marked as passed with a warning, and the next subtest is executed.



- **Retry:** This lets PETS re-run the failing step before proceeding to the next one. If the test step passes after retrieval, the status will be then passed with warning. Refer to the "Status" section below for more details. The success details are added to the PETS Log.
 - o The PETS log details all step events, displaying the status of each retry as shown below.



- **Stop:** This will stop the execution of the current test and will run the next test or stop execution if it is the last test in the package.

5.1.3.1 Test's Status:

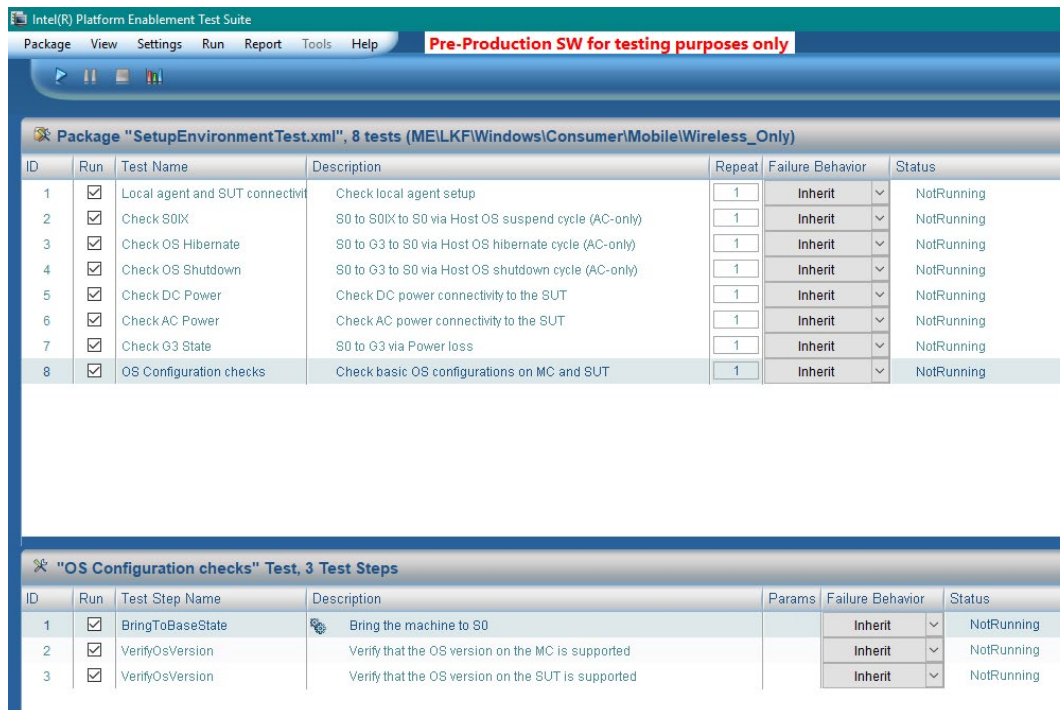
- **Not Running** - The test has not yet been run.
-  **Iteration indicator** - The test is currently running that iteration(e.g., 1/3).
-  **Passed** - The test was run successfully.
-  **Failed** - The test was run unsuccessfully.
-  **Aborted** - The testing process was aborted by the operator.
-  **Paused** - The testing process was paused by the operator

-  **Passed with warnings** - This status appears along with the "Manual" failure behavior when the test step is failed, retried or continued by the user.
-  **Failed with warnings** - This status appears for optional test steps, for example, CheckFWSTS.

5.1.3.2 Viewing a Test's Steps:

To view a test's steps:

1. Choose **View > Steps Pane**; the Intel® Platform Enablement Test Suite window is divided into two panes:
 - Upper pane - the Test pane - lists all the tests in the test package. Each test has **Run**, **Failure Behavior** and **Repeat** options that configure how that test is run.
 - Lower pane - the Test Step pane - lists all the steps in the test selected in the Test pane (the first test is selected by default). Each test step has **Run** and **Failure Behavior** options that configure how it is run.
2. Click on one of the tests listed in the Test pane; the test steps of the selected test are displayed in the lower pane.



The screenshot shows the Intel(R) Platform Enablement Test Suite window. The top menu bar includes Package, View, Settings, Run, Report, Tools, and Help. A red banner at the top right reads "Pre-Production SW for testing purposes only". The main window is divided into two panes. The upper pane, titled "Package 'SetupEnvironmentTest.xml', 8 tests (ME\KFI\Windows\Consumer\Mobile\Wireless_Only)", displays a table of tests. The lower pane, titled "'OS Configuration checks' Test, 3 Test Steps", displays a table of test steps for the selected test.

| ID | Run | Test Name | Description | Repeat | Failure Behavior | Status |
|----|-------------------------------------|----------------------------------|--|--------|------------------|------------|
| 1 | <input checked="" type="checkbox"/> | Local agent and SUT connectivity | Check local agent setup | 1 | Inherit | NotRunning |
| 2 | <input checked="" type="checkbox"/> | Check S0IX | S0 to S0IX to S0 via Host OS suspend cycle (AC-only) | 1 | Inherit | NotRunning |
| 3 | <input checked="" type="checkbox"/> | Check OS Hibernate | S0 to G3 to S0 via Host OS hibernate cycle (AC-only) | 1 | Inherit | NotRunning |
| 4 | <input checked="" type="checkbox"/> | Check OS Shutdown | S0 to G3 to S0 via Host OS shutdown cycle (AC-only) | 1 | Inherit | NotRunning |
| 5 | <input checked="" type="checkbox"/> | Check DC Power | Check DC power connectivity to the SUT | 1 | Inherit | NotRunning |
| 6 | <input checked="" type="checkbox"/> | Check AC Power | Check AC power connectivity to the SUT | 1 | Inherit | NotRunning |
| 7 | <input checked="" type="checkbox"/> | Check G3 State | S0 to G3 via Power loss | 1 | Inherit | NotRunning |
| 8 | <input checked="" type="checkbox"/> | OS Configuration checks | Check basic OS configurations on MC and SUT | 1 | Inherit | NotRunning |

| ID | Run | Test Step Name | Description | Params | Failure Behavior | Status |
|----|-------------------------------------|------------------|--|--------|------------------|------------|
| 1 | <input checked="" type="checkbox"/> | BringToBaseState | Bring the machine to S0 | | Inherit | NotRunning |
| 2 | <input checked="" type="checkbox"/> | VerifyOsVersion | Verify that the OS version on the MC is supported | | Inherit | NotRunning |
| 3 | <input checked="" type="checkbox"/> | VerifyOsVersion | Verify that the OS version on the SUT is supported | | Inherit | NotRunning |

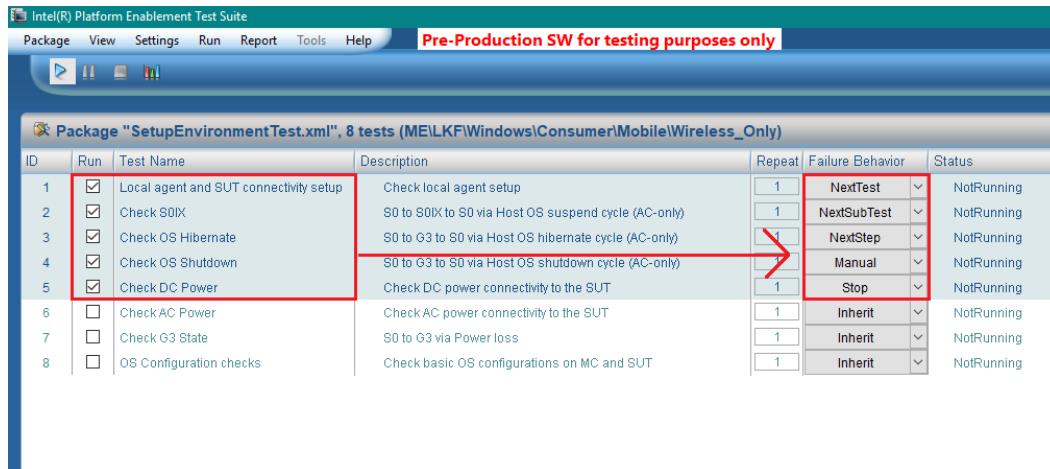
5.1.3.3 Configuring the Tests in the Test Pane

To configure the tests in the Test pane:

1. Verify that the checkbox in the **Run** column is selected for each test you want to run and deselected for each test you do not want to run (The **Run** checkboxes are selected for all the tests by default). To select or unselect all the tests, right-click the heading (**Run**) and choose **Select All** or **Unselect All**. Alternatively, you can select/unselect multiple tests/test steps together.

- To change the number of cycles that a test should be performed for, double-click the value in the test's **Repeat** column and enter the number of cycles.
- Click the help icon in the **Params** column to view and edit package parameters related to the test under which the selected test step is nested.
- Select one of the following options in the **Failure Behavior** drop-down list to define what will happen if one of the test's test steps fails: Next step, Next test, Stop, and Inherit.

Note: The "Failure Behavior" option provides simultaneous changeability of multiple selected tests.



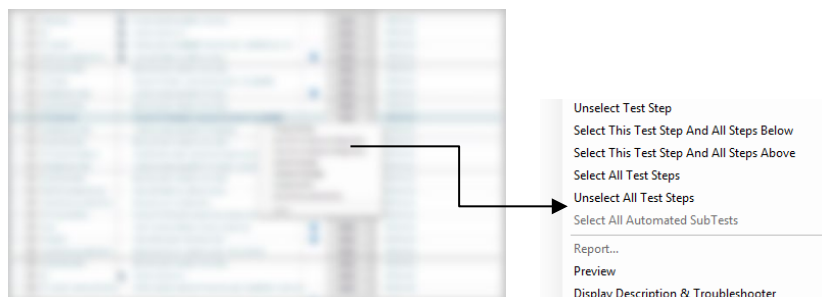
5.1.3.4 Configuring the Test Steps in the Test Step Pane

To configure the test steps in the Test Step pane:

- Verify that the checkbox in the **Run** column is selected for each test step you want to run and deselected for each test step you do not want to run. To select or unselect all the tests, right-click the heading (**Run**) and choose **Select All** or **Unselect All**, respectively. (By default, the **Run** checkboxes are selected for all of the test steps.)
- Select one of the following options in the **Failure Behavior** drop-down list to define what happens if a test step fails: Next step, Next test, Stop, and Inherit.

Using Group Select/Unselect in Power Packages

For Power Packages only, Intel® PETS groups steps into sub-tests, and allows an entire sub-test to be selected or unselected. Simply right-click on a test and you will get the following screen (example shown):



You are also able to group select/unselect the relevant test steps with a single command.

Using the Right-click menu:

Open a test in Intel® PETS.

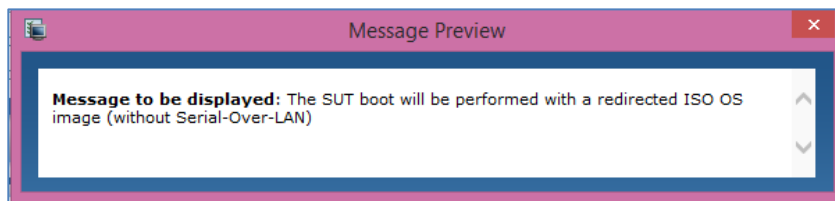
The steps in the Test Steps (lower) pane will be delineated by a horizontal line. The steps below the horizontal line are the Sub Test steps. Right-clicking would open a menu with the following options:

1. **Select Sub Tests:** To select all Sub test steps; alternatively, choose **Unselect Sub Test** to deselect all Sub Test steps.
2. **Select This Test Step And All Steps Below/Above:** These options would select the current step and mark either all above or below remaining test steps.
3. **Unselect/Select All Test Steps:** This will select or unselect all test steps in the current test.
4. **Select All Automated Sub Tests:** This will select only automated sub tests of a test.

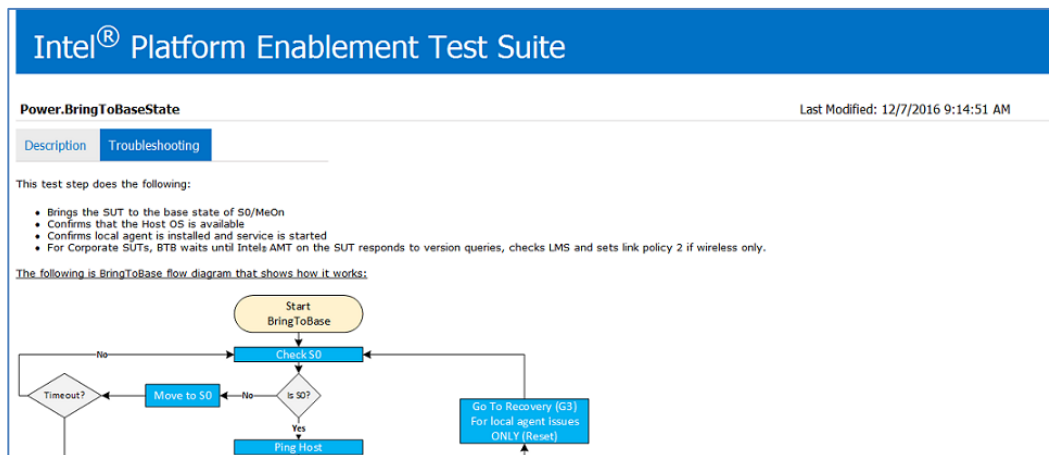
Alternatively, users can use hotkeys such as **shift** or **ctrl** to select multiple tests. Users can mark the selected test to be performed by right-clicking and choosing the **Select Test Steps/s** option from the menu.

5. **Preview:** A preview dialog will display how the test step will look like when it is run. This usually appears for test steps that display a message or question to the user as part of the execution.

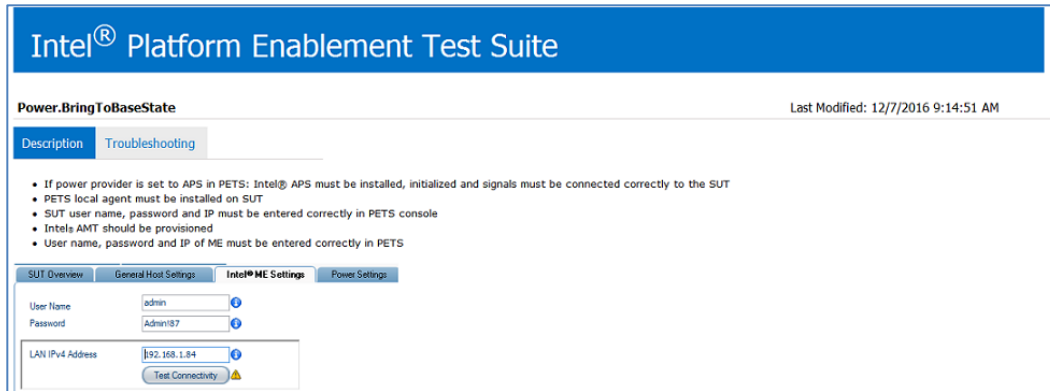
Note: For now, this feature is only available for the Message and Question test steps. The below screenshot shows an example of how the preview dialog would look like:



6. **Display Description & Troubleshooter:** This will activate a dialog that includes the following information:
 - The name of test step and last date of modification of the test step's description and troubleshooter.
 - Description tab: This description is usually populated by Intel® PETS developers and reflects the techniques and logic behind a specific test step and how it was programmed. As an example, when activating this feature for the "BringToBaseState" step, the user will get the following flow chart diagram explaining the process of bringing the SUT to the S0 state before running the test.



- Troubleshooting tab: This tab contains debug information for the test operation in case of failures. Such as the configurations which must be set in order to run the test step without failures. Here is an example for the "BringToBaseState" step Troubleshooter:



5.1.3.5 Configuring how a Test Package is run

To configure how the Test Package is run:

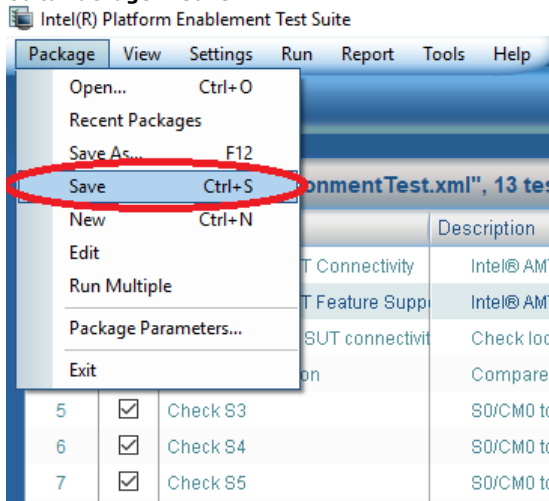
1. Go to **Run>Failure Behavior** and select which of the following options will occur if one of the tests in that test package fails: Next iteration, Next test, and Stop.
2. Configure the Package Parameters of the test package. (For information on how to configure package parameters, see [Changing Package Parameters](#).)

5.1.3.6 Saving the Changed Configuration of a Test Package

You can save the changed configuration of a test package as an original version or as a new version of that package. Either one of the versions (original/modified) of the test package can be loaded into the Intel® Platform Enablement Test Suite at a later date.

To save the changed configuration of a test package over the original version:

1. Go to **Package > Save**

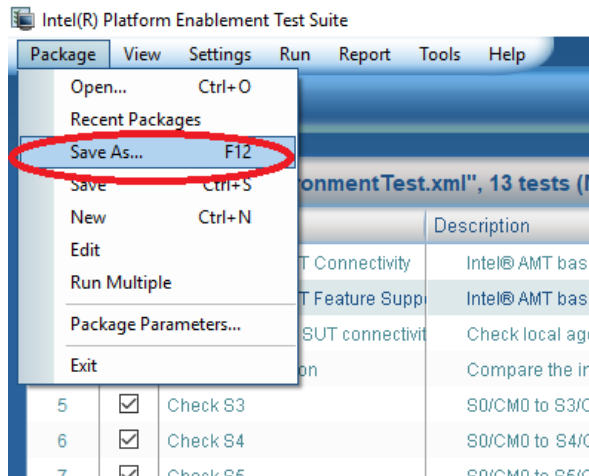


Typically, you can use this function when editing an existing package and you wish to save changes as you work (prevent loss of information if a crash occurs). Save replaces the original file.

To save the changed configuration of a test package as a new version:

1. Choose **Package > Save As**.

You can save the changed configuration of a test package as a new version basing the new package on one you have already opened/edited. This is useful if you want to save an existing package with a new name and then make changes rather than start from scratch. **Save As** leaves the original package unchanged.

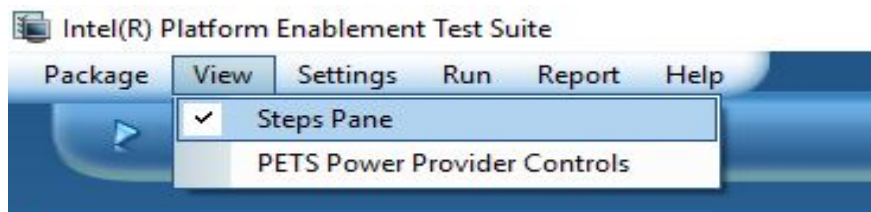


2. Enter the name of the new package in the **Name** field of the Save As dialog.
3. Specify the desired location and click **Save**. The new version of the test package is saved in the desired location.

5.2 Viewing APS Controls

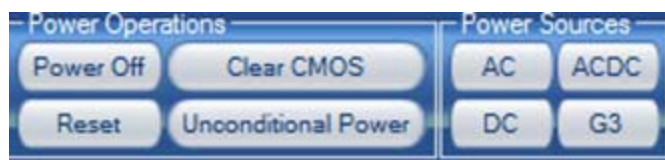
To view PETS Power Provider Controls:

- Choose **View > APS Controls**.



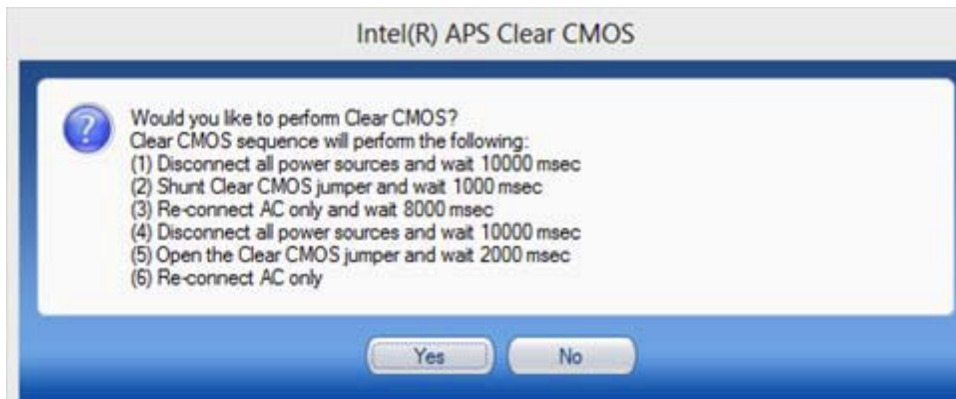
Note: Intel® Platform Enablement Test Suite must be connected to the SUT via an Intel® APS hardware device that is attached to the SUT. The SUT must be defined to be configured with Intel® PETS Power Provider .

The PETS Power Provider Controls are divided into the following two groups: Power Operations and Power Sources:



I. Power Operations - Control the power transitions of the SUT:

- Power On/Off - Turns the power to the SUT on and off by causing the Power button to be pressed on the Intel® APS. Power On appears when the SUT is off. Clicking this button turns the power on. Power Off appears when the SUT is on. Clicking this button turns the power off.
- Reset - Restarts the SUT by causing the Reset button on the Intel® APS to be pressed.
- Clear CMOS - Performs Clear CMOS. A message appears, describing the Clear CMOS operation and prompting the user for confirmation.



- Unconditional Power Down - Turns off the SUT by causing the Power button on the Intel® APS to be pressed for 7 seconds.

II. Power Sources - Connect or disconnect the SUT from its power source:


- AC - Connects only the AC power supply to the SUT.
- ACDC - Connects both the AC and DC power supplies to the SUT.
- DC - Connects only the DC power supply to the SUT.
- G3 - Disconnects all power sources from the SUT.

Note: When transitioning from AC to ACDC to DC or from DC to ACDC to AC, make sure the SUT remains in ACDC power state for 7 seconds at least. Otherwise, the SUT may shut down (enters G3 power state).

Note: The DC and ACDC options are not available in Desktop platforms and Workstations.


5.3 Running Tests

To run a test package:


 Click the **Start** button or choose **Run > Run Package** to run the test package's selected test(s) and test step(s).

Note: Once the Run button is clicked, you will see a progress window showing that the test operator is synchronizing the time of the SUT clock with that of the MC clock. This is done in order to make sure the test's logs will be arranged in the correct sequence especially when the test's step event is executed on the SUT.

To manually stop running a test:

 Click the **Stop** button or choose **Run > Stop**.

To pause a test while it is being run:

 Click the **Pause** button or choose **Run > Pause**



To resume running a paused test:

 Click the **Start** button.

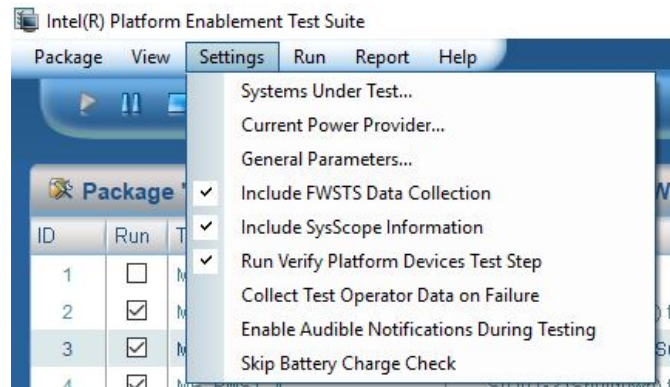
Note: If a test step is stopped or paused, Intel® Platform Enablement Test Suite does not stop the test immediately but allows it to continue until the test step being run has finished. The messages and dialogs that appear as part of that test step will continue to appear even though the test step has been stopped/paused.

5.3.1 Verify Platform Devices Test Step

Intel® PETS has a new test step named "VerifyPlatformDevices" added at the beginning of each test in most of the testing packages to verify platform devices in the device manager. In case the device manager shows unknown devices with a yellow bang, or uninstalled devices, or devices in faulty state, the step will fail and be marked as a warning. Its logs will display a full description of the errors.

| ID | Run | Test Step Name | Description |
|----|-------------------------------------|-----------------------|--|
| 1 | <input checked="" type="checkbox"/> | BringToBaseState |  Move the SUT to a Base/Known State |
| 2 | <input checked="" type="checkbox"/> | VerifyPlatformDevices |  Verify platform devices status from the device manager |

The user has the choice to either run this test step or skip it by checking/unchecking the following option in the Settings menu-bar item. However, it is highly recommended to execute it.

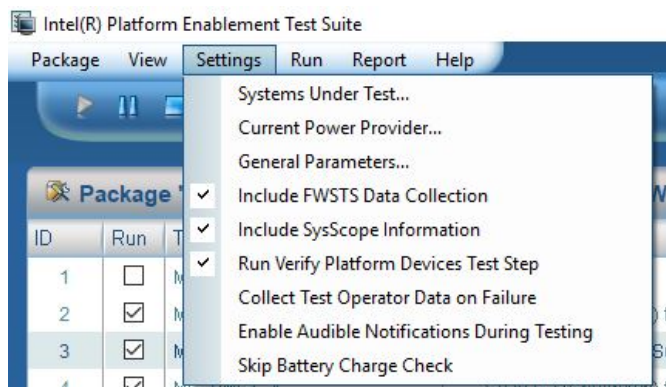


5.3.2 Audible notification during testing

PETS introduces a new feature that provides an alternate method to notify the test operator of the testing status in two situations:

- When multiple systems are running at the same time (Workshops), or when they're running on long flows and other tasks could be started (multitasking).
- When testing is complete but the system screen is out of view.

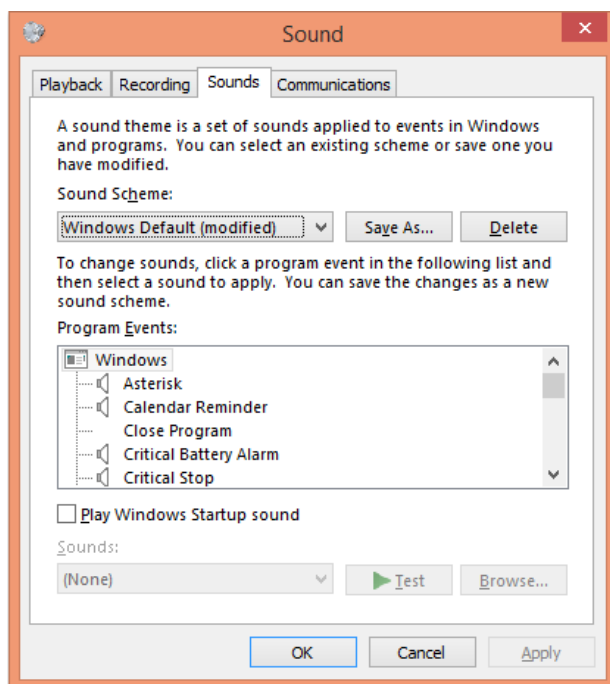
Note: Audible Notifications feature is disabled during testing by default. It can be switched on or off from the Main menu -> Settings tab -> Enable Audible Notifications During Testing, see the image below.



Audible Notifications during testing feature has three use-cases:

1. When a test step has one of the following results:
 - o **Failed**, if the test failure behavior is set to:
 - i. 'Manual', the default registered windows exclamation sound is played upon displaying the 'What to do?' dialog box.
 - ii. 'Stop', no audio is played. The audible notifications will be covered during test finishing flow in Step 2.
 - iii. Any other failure behavior, the default registered Windows System Notification sound is played.
 - o **Warning**, the default registered Windows Exclamation sound is played. This is for test steps which may only result in WARNING, and does not abide by the test failure behavior flows listed above.
 - o **Passed**, no audible notification is played as this may cause constant distraction during testing.
2. When a test is finished and the overall test result is:
 - o **Failed**, the default registered Windows Critical Stop sound is played.
 - o **Warning**, the default registered Windows Exclamation sound is played.
 - o **Passed**, the default registered Windows Asterisk sound is played.
3. When the whole testing process is complete and the message box containing "Test Complete" appears, PETS plays the default registered Windows NEW Mail Notification.

Customizing the audible tones is available by changing their values from the Windows OS Sound Configuration dialog. To Open Windows OS Sound Configuration dialog, go to the **personalization screen > sounds**. The following dialog appears and new sounds can be mapped to the previous five registered sound names.



5.3.3 Viewing the Progress of a Test

A summary of the progress of the test currently being run appears in the Steps pane.

To display the Steps pane:

Choose **View > Steps Pane**; the Progress pane appears under the test pane's title bar.

Detailed information about how a test is progressing can be obtained by clicking on the test to display its steps in the lower pane. The status of each test step appears in its **Status** column.

Additionally, the status bar at the bottom of the Intel® PETS main screen displays the following information:

- Network types and IP addresses for the SUT.
- Local agent connection status (connected or disconnected) and the local Agent version installed on the SUT when the connection is active. This saves the time taken to open the SUT configuration window to test local agent connectivity.
- System state: S0/G3
- ME state: ME on, ME off
- Power source: AC/ACDC/DC/G3
- Time elapsed (the elapsed time for the current step is displayed in the status bar during execution in the following format: DD HH:MM:SS (DD - Days, HH - Hours, MM - Minutes, SS - Seconds). The progress timer starts counting from zero for each new test step until it has finished (or timed-out). The timer freezes if the test is paused, continues when running is resumed, is reset to zero if the step is retried, and stops if the test is aborted.



| "PTT_001" Test, 28 Test Steps | | | | | | |
|-------------------------------|-------------------------------------|------------------|---|--------|------------------|------------|
| ID | Run | Test Step Name | Description | Params | Failure Behavior | Status |
| 1 | <input checked="" type="checkbox"/> | BringToBaseState | Bring the machine to S0 | | Inherit | NotRunning |
| 2 | <input checked="" type="checkbox"/> | WriteToMemory | Request locality 0: Write 1 to the register TPM_LOC_CTRL_0.RequestA | | Inherit | NotRunning |
| 3 | <input checked="" type="checkbox"/> | ReadFromMemory | Read the value of the register TPM_LOC_STATE | | Inherit | NotRunning |
| 4 | <input checked="" type="checkbox"/> | GetBitField | Verify TPM_LOC_STATE_1.locAssigned field is set to 1 | | Inherit | NotRunning |
| 5 | <input checked="" type="checkbox"/> | GetBitField | Verify TPM_LOC_STATE_2.activeLocality field is set to 0 | | Inherit | NotRunning |
| 6 | <input checked="" type="checkbox"/> | GetBitField | Verify TPM_LOC_STATE_3.activeLocality field is set to 0 | | Inherit | NotRunning |
| 7 | <input checked="" type="checkbox"/> | GetBitField | Verify TPM_LOC_STATE_4.activeLocality field is set to 0 | | Inherit | NotRunning |

(WLAN: 192.168.1.104) Local Agent: Available (Version: 8.1.42) System State: S0 ME State: MeOn Power Source: ACDC Elapsed Test Step Time: 00:00:00:05

Detailed information about all the tests and test steps in the test package, while the package is being run can be obtained by:

1. Opening the test package's test results log in the web browser (for information on how to locate the test results log, see [Viewing the results of running a test package.](#))
2. Clicking the **Refresh** button in the web browser whenever requiring an update of the information in the report.

The test's status (**Passed** or **Failed**) appears in its **Status** column once all the test steps in a test have been run. If one or more steps end with the status **Failed**, the status of the test is changed to **Failed**. A message pops up when the test package finishes running displaying "tests completed".

| Package "Compliance_Power_G3-S5.xml", 20 tests (ME:SKL\Windows\Corporate\All_in_One\Wired_And_Wireless) | | | | | | |
|---|-------------------------------------|-----------|---|--------|------------------|------------|
| ID | Run | Test Name | Description | Repeat | Failure Behavior | Status |
| 10 | <input checked="" type="checkbox"/> | ME_PM_10 | S4-S5CM-Off(Suspend Well On) to S5CM3 | 1 | Inherit | NotRunning |
| 11 | <input checked="" type="checkbox"/> | ME_PM_11 | S5CM3 to S4-S5CM3 | 1 | Inherit | NotRunning |
| 12 | <input checked="" type="checkbox"/> | ME_PM_12 | S4-S5CM3 to S5CM3 | 1 | Inherit | NotRunning |
| 13 | <input checked="" type="checkbox"/> | ME_PM_13 | S4-S5CM3 to S4-S5CM-Off (without Intel® ME Wake) | 1 | Inherit | NotRunning |
| 14 | <input checked="" type="checkbox"/> | ME_PM_14 | S4-S5CM3 to S4-S5CM-Off (with Intel® ME Wake) | 1 | Inherit | NotRunning |
| 15 | <input checked="" type="checkbox"/> | ME_PM_15 | Q3 or S4-S5CM-Off (Suspend Well On) to S4-S5CM3 | 1 | Inherit | NotRunning |
| 16 | <input checked="" type="checkbox"/> | ME_PM_16 | S4-S5CM-Off(Suspend Well On) to S4-S5CM3 | 1 | Inherit | NotRunning |
| 17 | <input checked="" type="checkbox"/> | ME_PM_17 | Straight to S5, ME Power Policy is S5-Only | 1 | Inherit | NotRunning |
| 18 | <input checked="" type="checkbox"/> | ME_PM_18 | Straight to S5, ME Power Policy Calls for On Operation | 1 | Inherit | NotRunning |
| 19 | <input checked="" type="checkbox"/> | ME_PM_19 | Q3 or S4-S5CM-Off(without Intel® ME Wake) to S4-S5CM-Off(with | 1 | Inherit | NotRunning |
| 20 | <input checked="" type="checkbox"/> | ME_PM_20 | Warm Reset | 1 | Inherit | NotRunning |

| "ME_PM_19" Test, 42 Test Steps | | | | | | |
|--------------------------------|-------------------------------------|-----------------------------|--|--------|------------------|------------|
| ID | Run | Test Step Name | Description | Params | Failure Behavior | Status |
| 10 | <input checked="" type="checkbox"/> | PolingMeOnByNetwork | Wait until ME responds to a VBS-MAN call - WLAN | | Inherit | NotRunning |
| 11 | <input checked="" type="checkbox"/> | Suspend | The machine transitions to S3 | | Inherit | NotRunning |
| 12 | <input checked="" type="checkbox"/> | VerifyMeSystemState | Verify system state after OS Sleep | | Inherit | NotRunning |
| 13 | <input checked="" type="checkbox"/> | PolingMeOffBySignal | Inverted - Check that there is no ME signal | | Inherit | NotRunning |
| 14 | <input checked="" type="checkbox"/> | PowerButtonOverride | PowerButton pressed for Ssec - transitions to S0->S5 | | Inherit | NotRunning |
| 15 | <input checked="" type="checkbox"/> | VerifyMeSystemState | Verify system state after Power Button Override | | Inherit | NotRunning |
| 16 | <input checked="" type="checkbox"/> | PolingMeOffBySignal | Inverted - Check that there is no ME signal | | Inherit | NotRunning |
| 17 | <input checked="" type="checkbox"/> | BringToBaseState | ME_PM_16.6 - S5CM-Off to S5CM-Off - Straight to S5 ME is in PP1 (P | | Inherit | NotRunning |
| 18 | <input checked="" type="checkbox"/> | PP_OnAnd0 | Set PP1 | | Inherit | NotRunning |
| 19 | <input checked="" type="checkbox"/> | PP_LinkPolicyEnabled_in_S0S | Set Link Policy 3 | | Inherit | NotRunning |
| 20 | <input checked="" type="checkbox"/> | PingHost | Check that the Host responds - LAN | | Inherit | NotRunning |
| 21 | <input checked="" type="checkbox"/> | PingHost | Check that the Host responds - WLAN | | Inherit | NotRunning |
| 22 | <input checked="" type="checkbox"/> | PolingMeOnByNetwork | Wait until ME responds to a VBS-MAN call - LAN | | Inherit | NotRunning |
| 23 | <input checked="" type="checkbox"/> | PolingMeOnByNetwork | Wait until ME responds to a VBS-MAN call - WLAN | | Inherit | NotRunning |
| 24 | <input checked="" type="checkbox"/> | Hibernate | The machine transitions to S4 | | Inherit | NotRunning |
| 25 | <input checked="" type="checkbox"/> | VerifyMeSystemState | Verify system state after OS Hibernate | | Inherit | NotRunning |
| 26 | <input checked="" type="checkbox"/> | PolingMeOffBySignal | Inverted - Check that there is no ME signal | | Inherit | NotRunning |
| 27 | <input checked="" type="checkbox"/> | PowerButtonOverride | PowerButton pressed for Ssec - transitions to S0->S5 | | Inherit | NotRunning |
| 28 | <input checked="" type="checkbox"/> | VerifyMeSystemState | Verify system state after Power Button Override | | Inherit | NotRunning |
| 29 | <input checked="" type="checkbox"/> | PolingMeOffBySignal | Inverted - Check that there is no ME signal | | Inherit | NotRunning |
| 30 | <input checked="" type="checkbox"/> | BringToBaseState | ME_PM_18.6 - S5CM-Off to S5CM-Off - Straight to S5 ME is in PP1 (P | | Inherit | NotRunning |
| 31 | <input checked="" type="checkbox"/> | PP_OnAnd0 | Set PP1 | | Inherit | NotRunning |
| 32 | <input checked="" type="checkbox"/> | PP_LinkPolicyEnabled_in_S0S | Set Link Policy 3 | | Inherit | NotRunning |
| 33 | <input checked="" type="checkbox"/> | PingHost | Check that the Host responds - LAN | | Inherit | NotRunning |
| 34 | <input checked="" type="checkbox"/> | PingHost | Check that the Host responds - WLAN | | Inherit | NotRunning |

(LAN: 127.0.0.1)

Note: The current SUT power status can be seen in the status bar.

5.4 Viewing, Saving, and Sending Test Reports

Once a test package finishes running, the results report of each test and each test step that was run can be seen. The report can be viewed in the Intel® Platform Enablement Test Suite or in the web browser. The reports have the same appearance and contain the same information regardless of the viewing location.

5.4.1 Viewing the results of running a test package

The following information describes how a test package's test results can be viewed:

- The Run Test Results window appears in the Intel® Platform Enablement Test Suite window when performing one of the following actions:
 - Double-clicking a test's Status field
 - Clicking on the Test results button in the toolbar ()
 - Choosing Report > View Reports.
- Double-clicking on the appropriate test result log in the web browser. The test results log files are located in <Intel(R) Platform Enablement Test Suite folder>\Logs. The location of the Intel® Platform Enablement Test Suite folder is set during the installation process. To make it easy to locate a specific log file, the format of the name of all test results log files is <package><date><time>.XML (e.g. **Report-20090122124614.xml**)

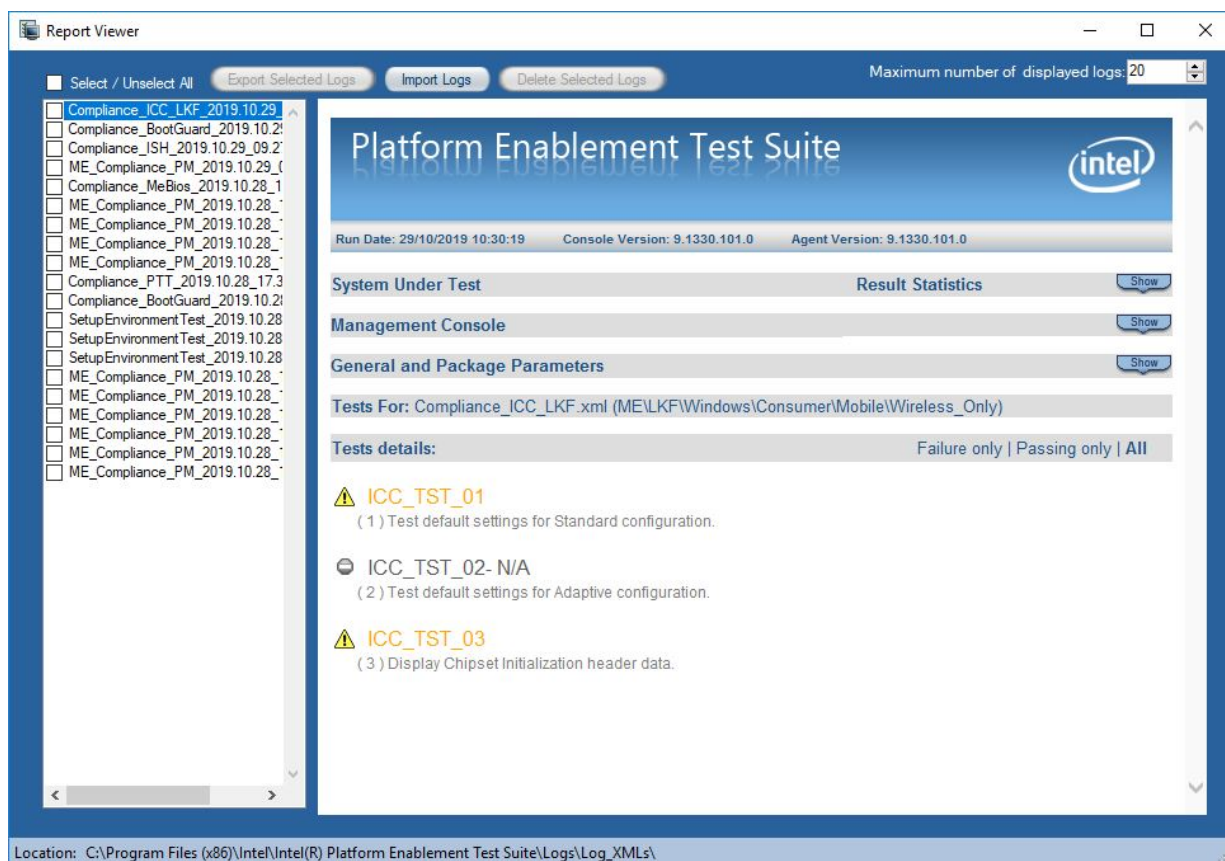
5.4.2 Example

Intel® PETS results for running Intel® DAL Compliance test package on a LKF Consumer platform are updated in the excel sheet below.

| Project: LKF based platform Consumer SKU | | | | LKF CONSUMER (Intel® CSME Related tests) | | LKF CONSUMER (Intel® non-CSME Related tests) | |
|---|--|-------------|-----------------|--|---------------|--|-----------------|
| Phase: | | | | Total | Category | Total | Category |
| Notes: | | | | 0.0% | Complete Rate | 0.0% | Complete Rate |
| Intel Confidential | | | | 0.0% | Pass Rate | 0.0% | Pass Rate |
| | | | | 0.0% | Fail Rate | 0.0% | Fail Rate |
| | | | | 0.0% | Block Rate | 0.0% | Block Rate |
| | | | | 100.0% | To Do | 100.0% | To Do |
| Test Name | Description | Form factor | PETS / Manual | Network Factor (LAN/WLAN) | Test Result | Comments | Intel Defect ID |
| Setup Environment Test | | | | | | | |
| Local agent and SUT connectivity setup | Check local agent setup | MB | PETS | WLAN | ToDo | | |
| Check S00X | S0 to S00X to S0 via Host OS suspend cycle (AC-Only) | MB | PETS | WLAN | ToDo | | |
| Check OS hibernate | S0 to S5 to S0 via Host OS shutdown cycle (AC-Only) | MB | PETS | WLAN | ToDo | | |
| Check OS shutdown | S0 to S5 to S0 via Host OS shutdown cycle (AC-Only) | MB | PETS | WLAN | ToDo | | |
| Check DC Power | Check DC power connectivity to the SUT | MB | PETS | WLAN | ToDo | | |
| Check AC Power | Check AC power connectivity to the SUT | MB | PETS | WLAN | ToDo | | |
| Check G3 State | S0 to S3 via Power loss | MB | PETS | WLAN | ToDo | | |
| OS Configuration Checks | check basic OS configuration on MC and SUT | MB | PETS | WLAN | ToDo | | |
| Signing and Manifesting AND Secure Tokens | | | | | | | |
| SIGN_SECTOK_01 | Non-signed Image Creation | MB | Manual | WLAN | ToDo | | |
| SIGN_SECTOK_02 | Signed Image Creation | MB | Manual | WLAN | ToDo | | |
| SIGN_SECTOK_03 | Debug Token | MB | Manual | WLAN | ToDo | | |
| Intel® ME BIOS Compliance | | | | | | | |
| BIOS_01 | End of POST | MB | PETS | WLAN | ToDo | | |
| BIOS_02 | DRAM Init Done | MB | PETS | WLAN | ToDo | | |
| Manufacturing Mode Compliance | | | | | | | |
| BIOS_04 | CF9GR Locking/Unlocking - Manufacturing Mode | MB | PETS | WLAN | ToDo | | |
| SPI Flash Interface Compliance | | | | | | | |
| SPI_001 | Descriptor Mode Test | MB | PETS | WLAN | ToDo | | |
| SPI_002 | Serial Flash Discoverable Parameter Test | MB | PETS and Manual | WLAN | ToDo | | |
| SPI_003 | 4 Kbytes Erasable Blocks Test | MB | PETS | WLAN | ToDo | | |
| SPI_004 | SFDP version 1.0 test | MB | PETS | WLAN | ToDo | | |
| SPI_005 | SPI Flash Size Test | MB | PETS | WLAN | ToDo | | |
| SPI_006 | SPI Flash Vendor Specific Capabilities (VSCC) Test | MB | PETS | WLAN | ToDo | | |
| SPI_007 | Flash Descriptor Security Override Test | MB | PETS and Manual | WLAN | ToDo | | |

5.4.3 Report Viewer

The Report Viewer allows easy navigation between reports by clicking on them in the left hand pane. It is possible to export PETS logs, import previously exported logs, and delete test result log files. Also, viewing, navigating, and selecting several older/newer logs is possible in the list prior to saving or copying them into other folders. Additionally, simultaneous export/import actions for multiple PETS logs is possible as well.

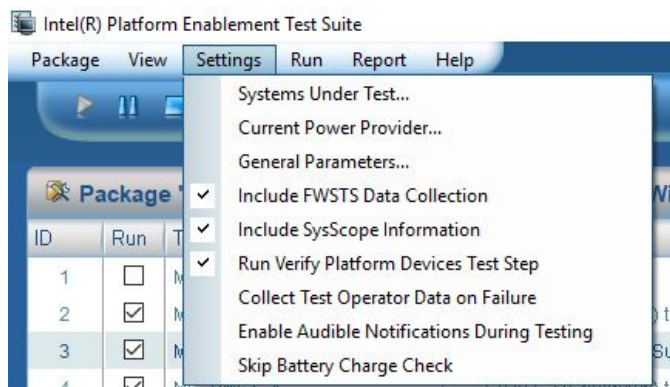


The Viewer includes the following information:

- Statistics on the tests run.
- Tests skipped (deselected ones).
- Steps not run because they were deselected, or earlier failure/abortion of a step failed (clicking the stop button).

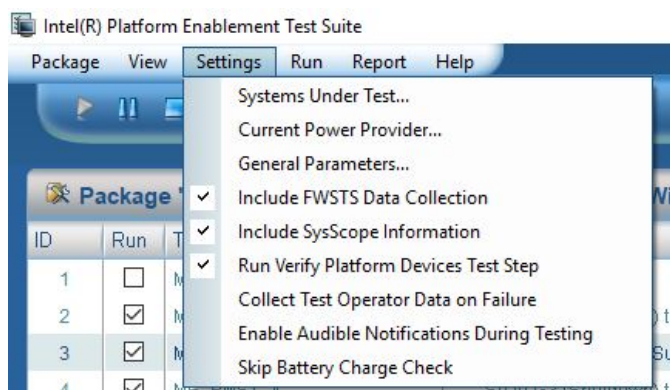
Note: Aborted tests may also include some failed tests. It is therefore recommended to view the PETS logs to check if any aborted tests actually failed before being aborted.

- Information about the SUT on which the tests were run, including:
 - o SUT Overview.
 - o General Host Settings.
 - o Power Settings.
 - o Intel® PETS Power Provider Settings.
 - o System Information.
- Information is collected using the FWSTS Data Collection and SysScope Information tools.

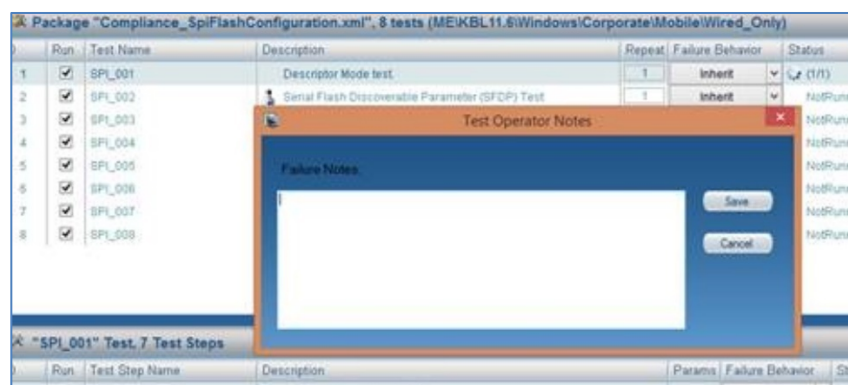


Test Operator Additional Feedback upon Test Failure.

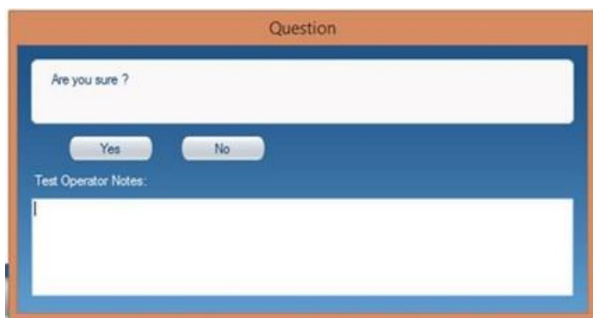
'Collect test operator data on failure' feature is disabled by default. It is enabled by checking "Collect Test Operator Data on Failure" checkbox under Settings in the Main Menu



When enabled, regardless of the failure mode (except for Manual), a message box with a single input window appears allowing the test operator to add additional data about the failure at that point.

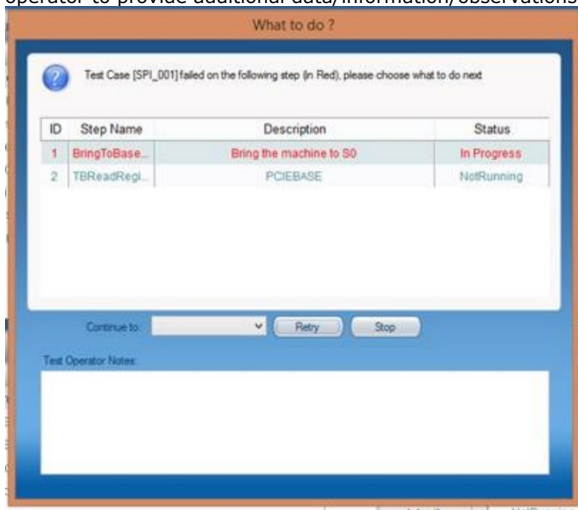


For all Question/Answer test steps, the window above will not appear. Instead, a single input window will be added within the same message box that allows collecting of additional information at the time the test operator selects Yes/No, at all times.



A dialog box titled "Question" with a blue border. It contains a text input field with the placeholder text "Are you sure?". Below the input field are two buttons: "Yes" and "No". At the bottom, there is a section labeled "Test Operator Notes:" followed by a large text area for input.

For all Manual failure behavior tests, a single input window is added to the bottom of the "What to do" window allowing the test operator to provide additional data/information/observations about the failure at that point.

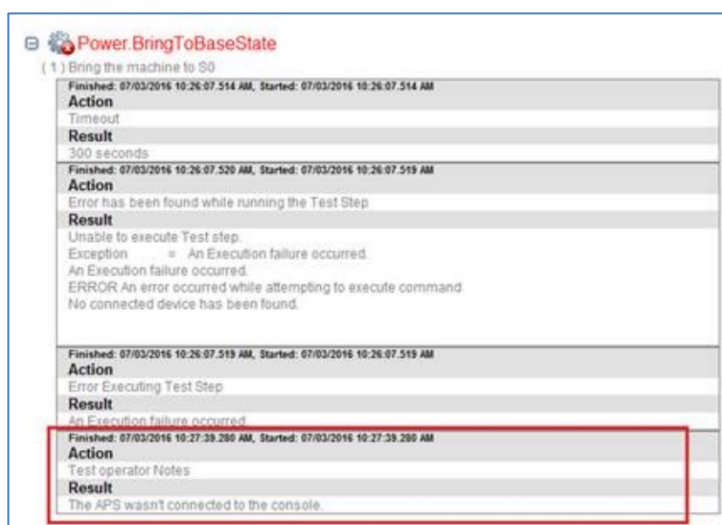


A dialog box titled "What to do?" with a blue border. It contains a message: "Test Case [SPI_001] failed on the following step (in Red), please choose what to do next". Below the message is a table with 4 columns: ID, Step Name, Description, and Status.

| ID | Step Name | Description | Status |
|----|----------------|-------------------------|-------------|
| 1 | BringToBase... | Bring the machine to S0 | In Progress |
| 2 | TBReadRegi... | PCIEBASE | NotRunning |

Below the table is a "Continue to:" dropdown menu and "Retry" and "Stop" buttons. At the bottom, there is a section labeled "Test Operator Notes:" followed by a large text area for input.

In all cases above, the window will allow up to 1024 input characters. The test operator's additional input will be copied into (appended to) the Intel® PETS log once the dialog box/message box hosting the input window is closed/cleared.



A log entry titled "Power.BringToBaseState" with a red icon. It shows a sequence of test steps and their results. The first step is "Bring the machine to S0". The second step is "Error has been found while running the Test Step". The third step is "Error Executing Test Step". The fourth step is "An Execution failure occurred". The fifth step is "Test operator Notes". The sixth step is "The APS wasn't connected to the console.".

Finished: 07/03/2016 10:26:07.514 AM, Started: 07/03/2016 10:26:07.514 AM
Action
Timeout
Result
300 seconds

Finished: 07/03/2016 10:26:07.520 AM, Started: 07/03/2016 10:26:07.519 AM
Action
Error has been found while running the Test Step
Result
Unable to execute Test step.
Exception = An Execution failure occurred.
An Execution failure occurred.
ERROR An error occurred while attempting to execute command
No connected device has been found.

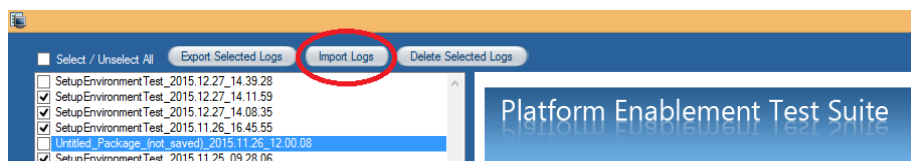
Finished: 07/03/2016 10:26:07.519 AM, Started: 07/03/2016 10:26:07.519 AM
Action
Error Executing Test Step
Result
An Execution failure occurred

Finished: 07/03/2016 10:27:38.280 AM, Started: 07/03/2016 10:27:38.280 AM
Action
Test operator Notes
Result
The APS wasn't connected to the console.

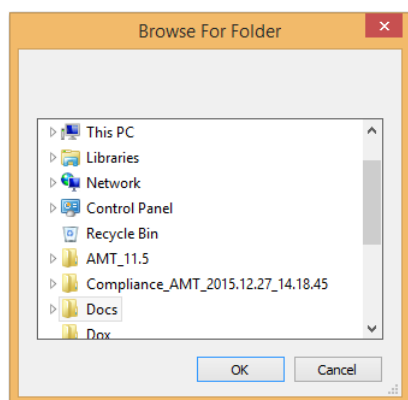
5.4.3.1 Importing Logs

To import log files:

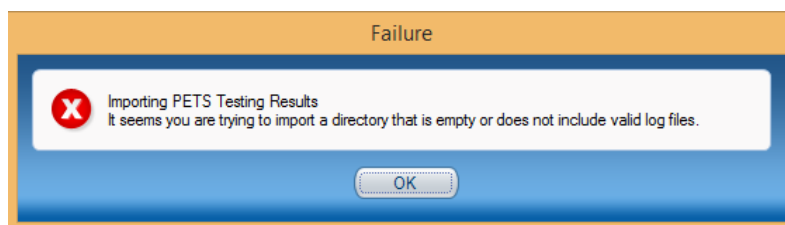
1. Open the Report Viewer.
2. Click **Import Logs**.



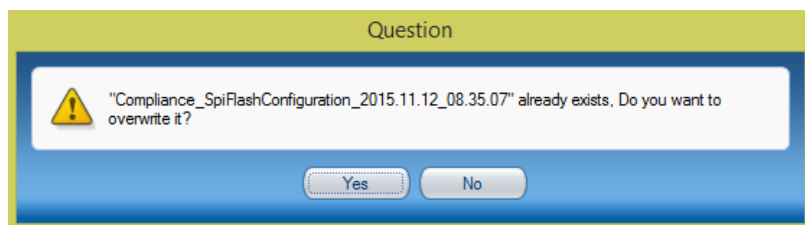
3. The "Browse For Folder" window opens. Navigate to the log folder.



Note: An error will be received when trying to import PETS testing results from an empty directory or a directory that does not contain valid log files.



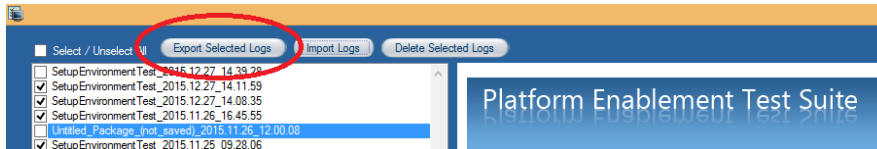
Note: When importing a log from a directory that already exists, a message appears informing the user that the "Log directory <dir name>" already exists. Do you want to overwrite it? This message only appears when the content in the directory conflicts with an existing one.



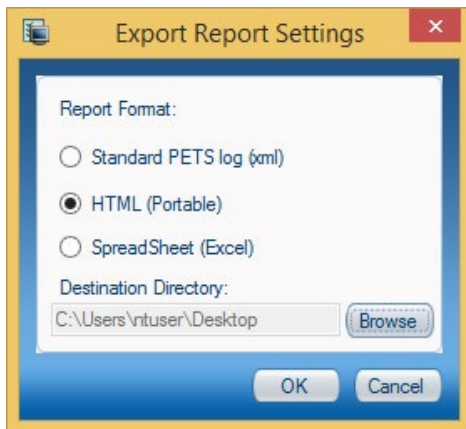
5.4.3.2 Exporting Logs

To export log files:

1. Open Report Viewer.
2. Browse the report/s and select the log file/s you want to export from the list.
3. Click **Export Selected Logs**.



4. The Export Report Settings dialog opens. Set the desired export format from the following report formats: Standard PETS log (XML), HTML (Portable), or Excel Spreadsheet.



5. Click **Browse** to set the Destination Directory. A dialog opens prompting you to select the target directory in which the logs are saved. Clicking Browse again sets the previously selected target directory to be the new default directory.
6. Click **OK**. Intel® PETS saves the logs in the requested format in the target directory.

Note: Intel® PETS remembers the last destination a report export was saved to.

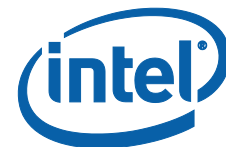
Note: Intel® PETS generates the HTML output and Spreadsheet only when choosing to export logs. They are not available by default in the "Logs\Log_XMLs" folder.

When exporting an HTML report, the file can be shared with other people without consuming any extra resources and can view it using any Internet browser. This report captures all the test steps for each test.

The HTML Report Type includes the following:

- Information about the SUT on which the tests were run.
- System Scope information.
- Management Console Information
- General and Package Parameters
- Statistics on the tests run.
- Status for each test/s and steps.
-

Note: Users can filter the test results on either the "test level" or "step level" in the same manner for both cases according to their ending results whether they are passed or failed. A tooltip will appear guiding the user to filter the test results accordingly.



Result Statistics

Passed: 0 Failed: 12 Aborted: 1 Not-Running: 7

Compliance_Power_G3-S5 Tests Details: [Failure only](#) | [Passing only](#) | [All](#)

[Click to view Failed tests](#)

| Passed | Failed | Aborted | Not-Running |
|--------|--------|---------|-------------|
| 0 | 12 | 1 | 7 |
| 0.0% | 60.0% | 5.0% | 35.0% |

| ID | Test Name | Iteration Number | Status |
|----|-----------|------------------|--------|
|----|-----------|------------------|--------|

Result Statistics

Passed: 0 Failed: 12 Aborted: 1 Not-Running: 7

Compliance_Power_G3-S5 Tests Details: [Failure only](#) | [Passing only](#) | [All](#)

[Click to view Passed tests](#)

| Passed | Failed | Aborted | Not-Running |
|--------|--------|---------|-------------|
| 0 | 12 | 1 | 7 |
| 0.0% | 60.0% | 5.0% | 35.0% |

| ID | Test Name | Iteration Number | Status |
|----|-----------|------------------|--------|
|----|-----------|------------------|--------|

Result Statistics

Passed: 0 Failed: 12 Aborted: 1 Not-Running: 7

Compliance_Power_G3-S5 Tests Details: [Failure only](#) | [Passing only](#) | [All](#)

[Click to view Passed tests](#)

| Passed | Failed | Aborted | Not-Running |
|--------|--------|---------|-------------|
| 0 | 12 | 1 | 7 |
| 0.0% | 60.0% | 5.0% | 35.0% |

| ID | Test Name | Iteration Number | Status |
|----|-----------|------------------|--------|
|----|-----------|------------------|--------|

Note: Another tooltip will appear when pointing the mouse at the *Passed* and *Failed* results labels, prompting the user to click in order to filter the test results accordingly. For example, Clicking on “Passed” label as shown below, filters the test results to show only passed ones. The same applies for “Failed” test results label as well.

Result Statistics

Passed: 11 Failed: 2 Aborted: 0 Not-Running: 0

[Click to view the passed tests](#)

SetupEnvironmentTest Tests Details: [Failure only](#) | [Passing only](#) | [All](#)

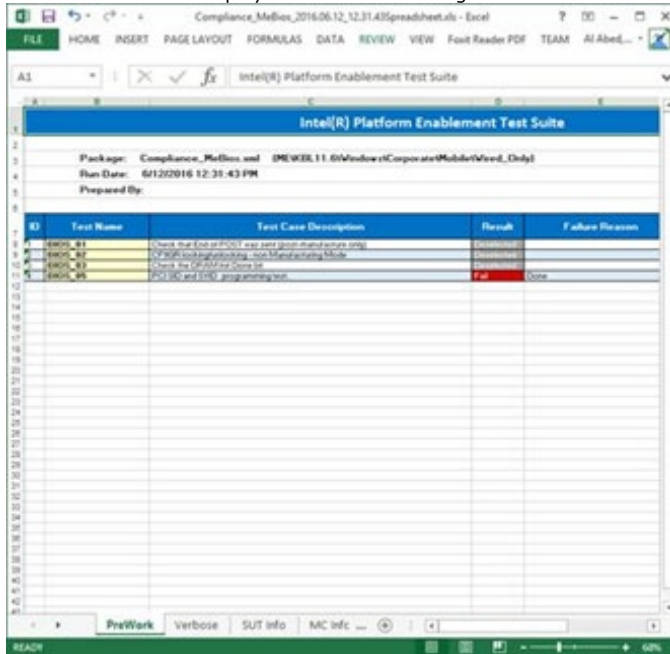
| ID | Test Name | Iteration Number | Status |
|----|--|------------------|--------|
| 1 | Check Intel® AMT Connectivity | 1 / 1 | Passed |
| 2 | Check Intel® AMT Feature Support | 1 / 1 | Passed |
| 5 | Check S3 | 1 / 1 | Passed |

| Passed | Failed | Aborted | Not-Running |
|--------|--------|---------|-------------|
| 11 | 2 | 0 | 0 |
| 84.6% | 15.4% | 0.0% | 0.0% |

Intel® PETS also allows users to export and view the Test Results Report in Excel spreadsheet format. You will see tabs for multiple sheets.

- Pre-Work format sheet - Displays the test results in the pre-work format (only test case and sub tests are included).
- Verbose format sheet - Holds a verbose version of the log (all test steps are included).
- SUT Info sheet - Displays the System under Test information
- MC Info sheet - Displays the Management Console information

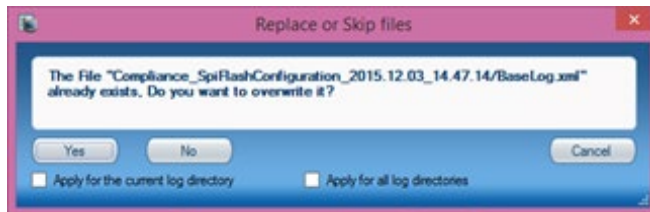
- Parameters sheet – Displays General and Package information



Note: By default, **Export Selected Logs** and **Delete Selected Logs** are disabled until the user selects a log.

Note: When exporting a log/s from a directory that already exists, a message appears informing you that the "Log file <log file name>" already exists. Do you want to overwrite it? If "Yes" is clicked, the change will be applied to the current file only.

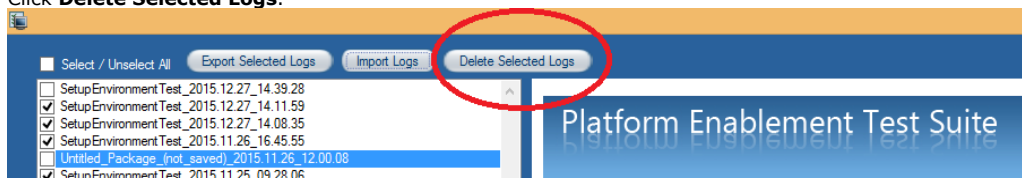
On the other hand, clicking on "No" will skip the current file and "Cancel" will terminate the whole copy process. This message only appears when the content in the directory conflicts with an existing one.



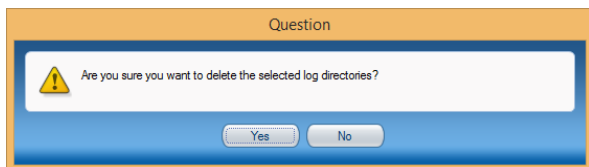
5.4.3.3 Deleting Logs

To delete log files:

1. Open Report Viewer.
2. Browse the report/s and select the log file/s that you want to delete from the list.
3. Click **Delete Selected Logs**.



4. When prompted for confirmation, click **Yes**.



5.4.4 Test Results Report SUT Information

To display information about the SUT in the Test Results report:

- Click the **Show** button at the top of the report.

To hide information about the SUT in the Test Results report:

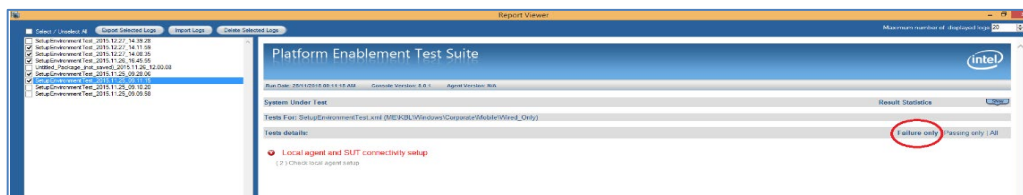
- Click the **Hide** button at the top of the report.

5.4.5 Test Results Report Test Information

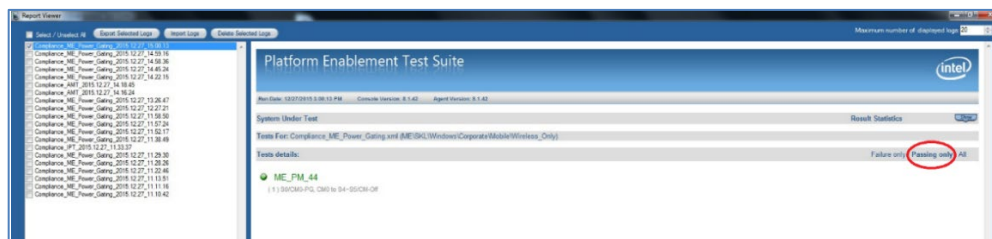
The Test Results Report provides a high level summary for each test. You can also view detailed information—as explained below.

- ❖ **You can filter the test results according to one the following criteria:**

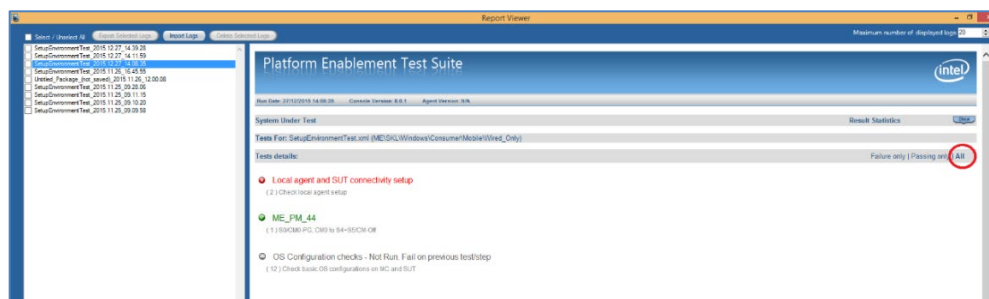
- **Failure Only:** PETS only displays failed, aborted and conditionally passed tests.



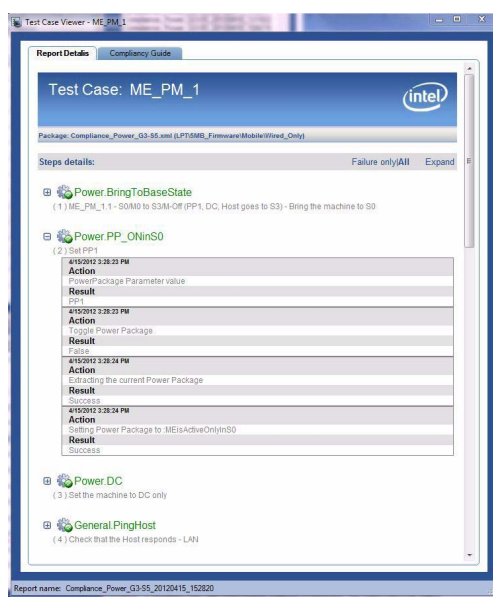
- **Passing Only:** PETS only displays tests that passed.



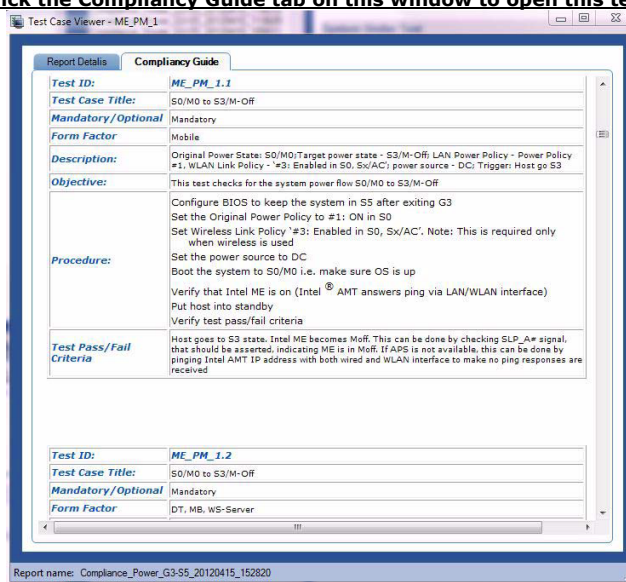
- **All:** PETS displays all the tests (passed, failed, conditionally passed and deselected tests).



- ❖ **To view more information on a specific test, click on it to see the following:**
A detailed secondary window appears that allows you to open the details of each step in the test, expand all, collapse all, or see all failures of that test.



- ❖ **You can also click the Compliance Guide tab on this window to open this test in the Compliance Guide.**



5.5 Results Worksheet Generation

The Results Worksheet is a new addition to Intel® Platform Enablement Test Suite that enables Intel® PETS users to update an excel sheet with the latest results of a set of tests performed on a defined SUT. This excel sheet provides statistics on the percentage of tests not performed, passing, failing, and blocked per SUT. Example and usage instructions are given below.

5.5.1 Important notes

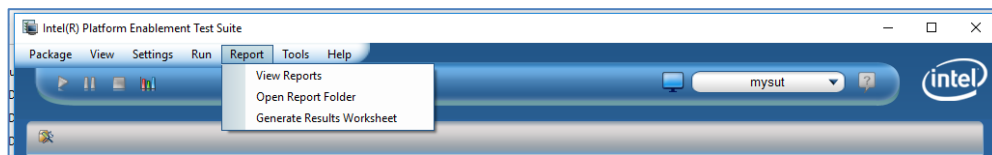
The excel sheet template is not embedded into Intel® PETS. To get the template for Intel® CSME 12.0 based platforms, contact your CE representative. Excel templates for other Intel® ME projects will be available in the future.

Please note that the results worksheet will be updated and saved in an excel file regardless if the console has Microsoft Excel or not. To be able to view the worksheet with all results statistics for your SUT, please make sure your console has Microsoft Excel.

5.5.2 Usage

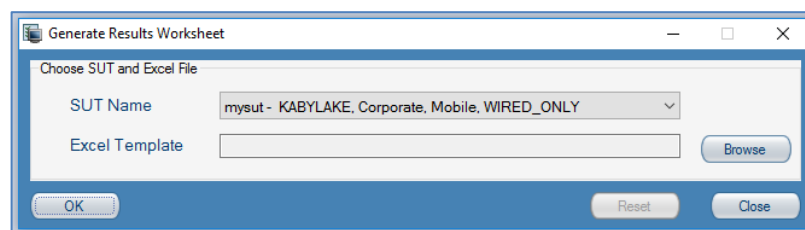
Once Intel® PETS logs are ready, follow the steps below:

1. Select "Generate Results Worksheet" option from the "Report" menu-bar item as seen below.



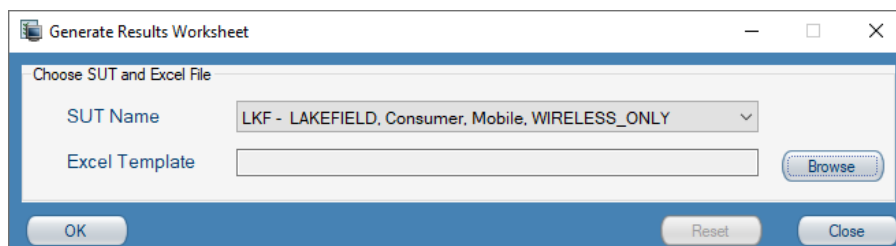
2. Choose the desired SUT then import an excel template, where:

- a) **SUT Name:** The drop down menu shows information about user-defined SUTs currently available in Intel® PETS. The selected option should belong to the desired SUT to generate the results sheet for.
- b) **Excel Template:** Click "Browse" to import the Microsoft Excel template file containing the set of tests and results to be updated.



3. After importing is complete, the "Generate Results Worksheet" dialog will be updated with additional requested input for mapping with excel, where:

- a) **Worksheet to Fill:** The drop down menu shows options of all sheets in the imported excel template file.
- b) **Test Name Column:** Refers to the column name containing the list of tests.
- c) **Result Column:** Refers to the column name containing the test results to be updated



Note: Click the **Reset** button to clear all input values.

Note: The input for mapping with excel will be updated automatically by Intel® PETS according to the imported excel file. The user might have to update these fields manually if Intel® PETS cannot locate the "Test Name" or "Result" columns (i.e. value will be N/A).

5.6 Using the Compliancy Guide

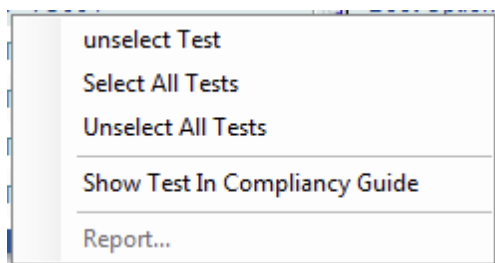
Intel® Platform Enablement Test Suite allows you to display any test in the Compliancy Guide.

Note: This feature is supported in Internet Explorer 7 or above, and in Firefox 3 or above.

To display the test in the Compliancy Guide:

1. Right-click on any test in the PETS test pane.

The right-click menu opens.



2. Select "Show Test In Compliancy Guide".

The relevant test opens in the Compliancy Guide in a separate pop-up window.

6 Changing Package Parameters

You can use the Package Parameters dialog to modify the time-out times, LPT Port, WLAN IP, WLAN Mac Address, and other parameters of a test package, to reflect the settings required for the specific system being tested.

If you change a package parameter and then save the test package, the new settings will be used when you next open the package.

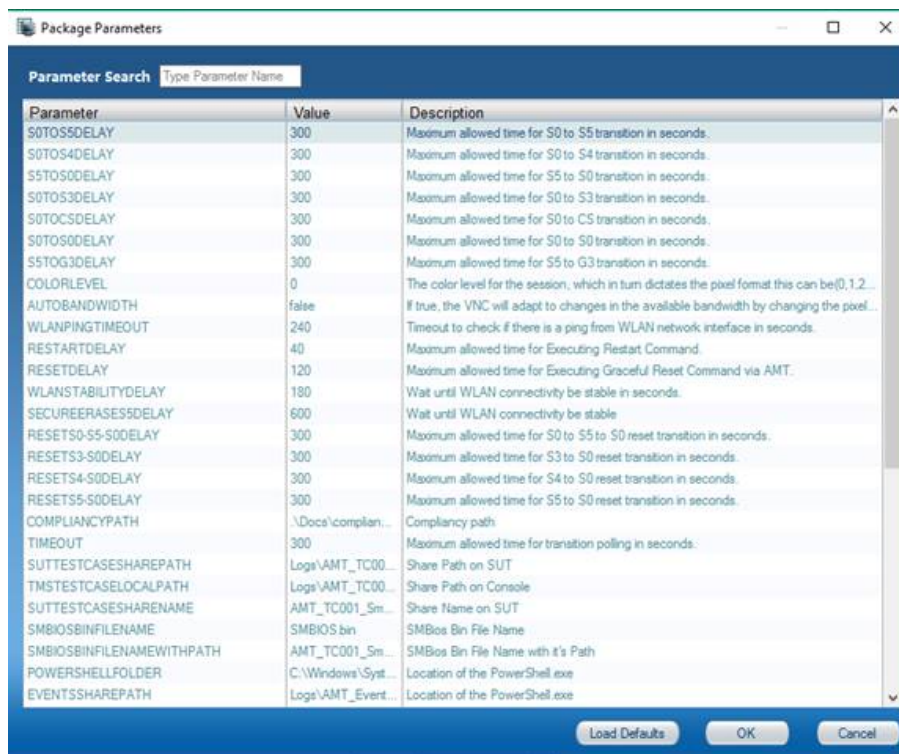
To revert to the original default settings, navigate to the **<PETS Installation Folder>\Packages\<Package Name>.xml.global** file and delete it. When you subsequently open the package, it will use the original settings.

Package Parameters are specific to each test package. Any changes in the Package Parameters do not affect the Package Parameters for any other package, even if they have the same name and meaning. Different packages have different lists of Package Parameters.

6.1 Changing Parameter Values

To open the Package Parameters dialog in Intel® Platform Enablement Test Suite:

1. Open a test package.
2. Choose **Package > Package Parameters**.



To search for a package parameter:

Go to the search box next to the "Search Parameter" label and type in the package parameter name that you're looking for. The parameters will be filtered where the package parameters specification table will only show and highlight the parameters that have the user searched text in their name.



To change parameter values:

Note:

The values of Package Parameters that are time-related are represented in seconds.

1. Double-click the value of the parameter you want to change; the value is selected.
2. Type in a new value for the parameter.
3. Repeat steps 1-2 for all the parameters you want to change.
4. Click **OK**.

Please be aware that not all package parameters will be the same for all packages.

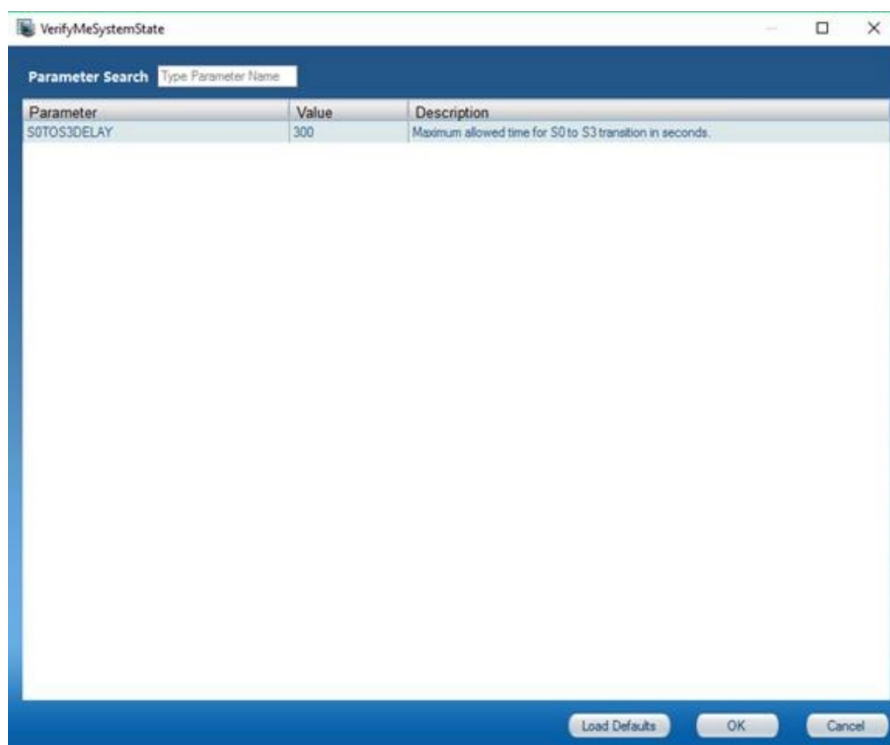
To load package parameter default values:

- Click "**Load Defaults**" and then "**OK**".

Note:

By clicking **Load Defaults**, PETS resets the package parameter values to their original values (the initial values when PETS ran for the first time). Each package has its own parameters.

6.2 Test Step Parameters



To load test step parameter default values:

- Click **Load Defaults** and then **OK**.

Note: By clicking **Load Defaults**, PETS resets the test step parameter values to their original values (the initial values when PETS ran for the first time). If a parameter is shared between the test step and the package, the changes are reflected on both sides.

To view step parameters:

- Click the help icon beside in the **Params** column for steps that accept parameters.

| "ME_PM_1" Test, 24 Test Steps | | | | | |
|-------------------------------|-------------------------------------|------------------|--|---|---------|
| ID | Run | Test Step Name | Description | Params | Failure |
| 1 | <input checked="" type="checkbox"/> | BringToBaseState | ME_PM_1.1 - S0/M0 to S3/M-Off (PP1, DC, Host goes to S3) - Bring the |  | |
| 2 | <input checked="" type="checkbox"/> | PP_ONinS0 | Set PP1 |  | |
| 3 | <input checked="" type="checkbox"/> | DC | Set the machine to DC only | | |
| 4 | <input checked="" type="checkbox"/> | PingHost | Check that the Host responds - LAN | | |

A window opens displaying the parameters related to the selected step (similar to that shown in [Changing Parameter Values](#)). You can view and change the parameter values as required.

7 Changing General Parameters

The General Parameter dialog can be accessed through **Settings > General Parameters** menu item.

General parameters are the parameters that are shared among all the packages in PETS. General Parameters are used to resolve the differences between different platforms supported by PETS. Modifications to one of the parameters will be affect all the steps that utilize it.

You can use the General Parameters dialog to modify the general parameters listed in it. Currently, PETS defines some general parameters for the commonly used "BringToBase" step as shown in the image below:



7.1 Changing General Parameter Values

To modify the General Parameters:

1. Double-click the value of the parameter you want to change; the value is selected.
2. Type in a new value for the parameter.
3. Repeat steps 1-2 for all the parameters you want to change.
4. Click **OK**.

To load general parameter default values:

- Click **Load Defaults** and then **OK**.

Note: By clicking **Load Defaults**, PETS resets the general parameter values to their original values (the initial values when PETS ran for the first time). If a parameter is shared between the test step and the general parameters, the changes are reflected on both sides.

8 Running PETS in Package Design Mode

Package Design Mode provides additional capabilities such as creating packages and tests from scratch, modifying existing tests, or adding extra tests and steps.

Test steps are the building blocks for PETS test packages as they determine the specific functionality for each package. For example, you might need to ping the SUT as part of your test; a test step named "Ping" provides this functionality. If you need to add a delay after changing the SUT power state, you can use the "Delay" step to provide a delay with a configurable duration.

PETS provides a large selection of out-of-the-box steps which are grouped into "Test Sets" depending on the functionality they provide. For example, the power steps can be found under the Power plug-in.

Each step has a name, description, input parameters and output parameters. Sometimes, you might need to add a more specific description for the step depending on the functionality the step provides for your test. For example, the CMD step is a very general step used to run a command. After adding it as part of your test, you might wish to call it "Running the <Name of tool> tool" or "changing a setting" this will make your test easier to understand.

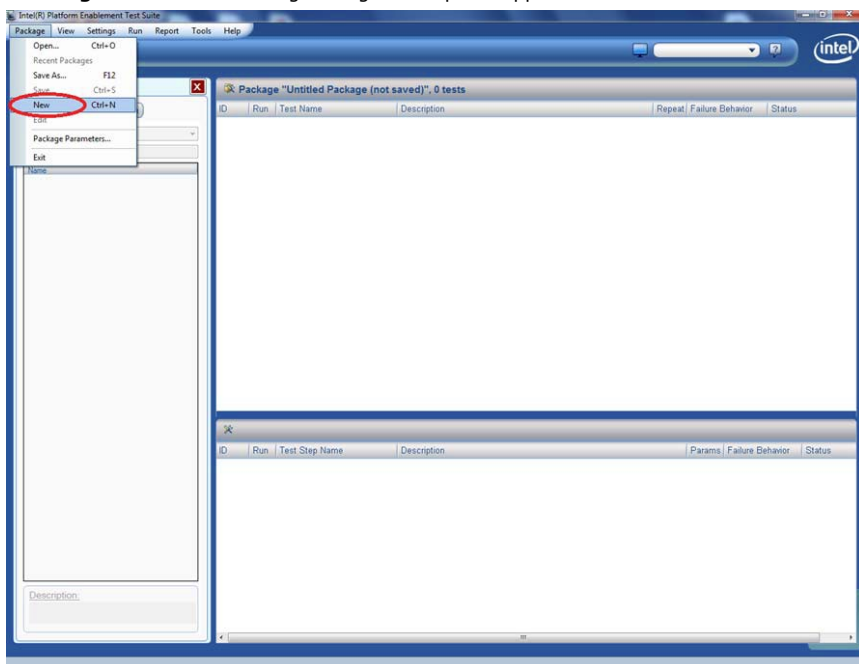
You can filter the steps to get a specific plug-in step or use the free text search option to search for the step in all plug-ins and various tests or search for one in the Search Step bar.

8.1 Creating a Blank Test Package

You can create new packages and tests, add steps, and run the test. This enables you to run tests during package building and verify the results are as expected, and modify the test package as needed.

To create a new test package:

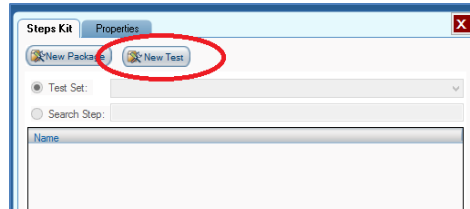
1. Choose **Package > New**. The Package Design Mode panel appears on the left side of the PETS interface.



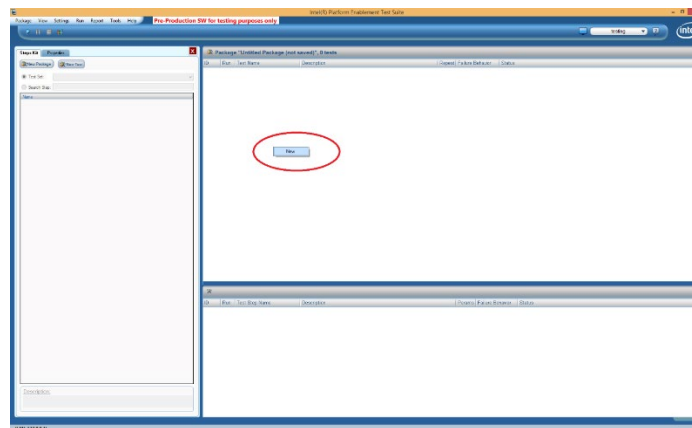
2. Add tests to your package, as described in the next section.

8.2 Adding Tests to a New Package

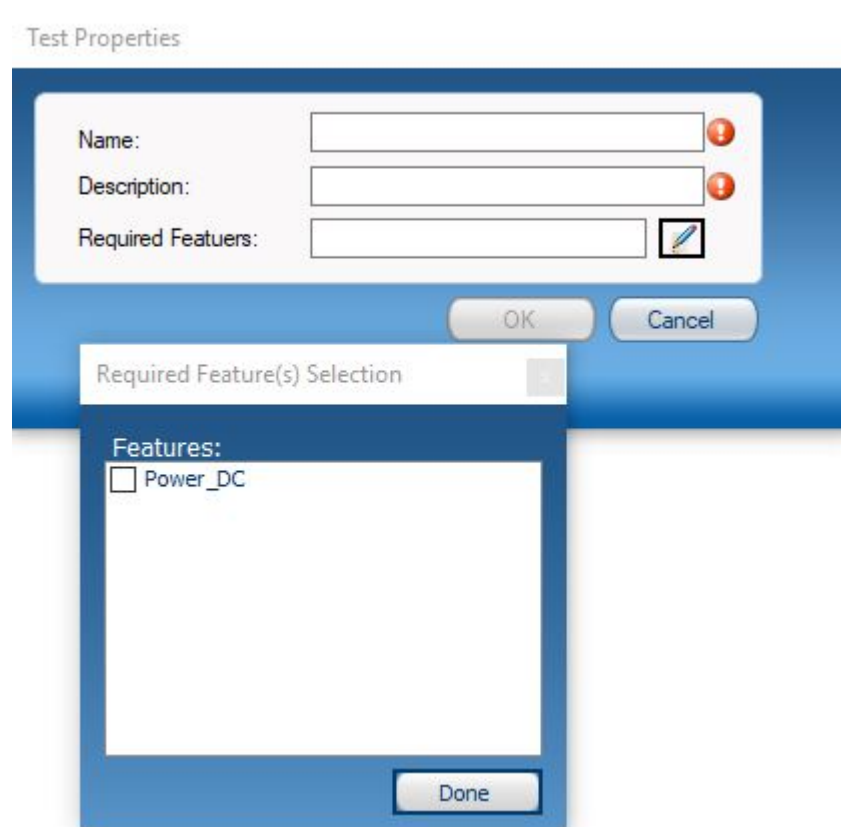
1. Click **Steps Kit > New Test**.



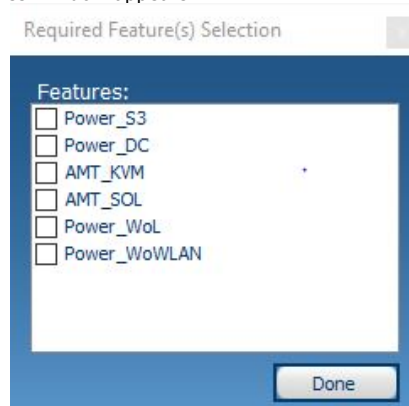
2. Right-click the test pane and select New.



- The Test Properties window appears.



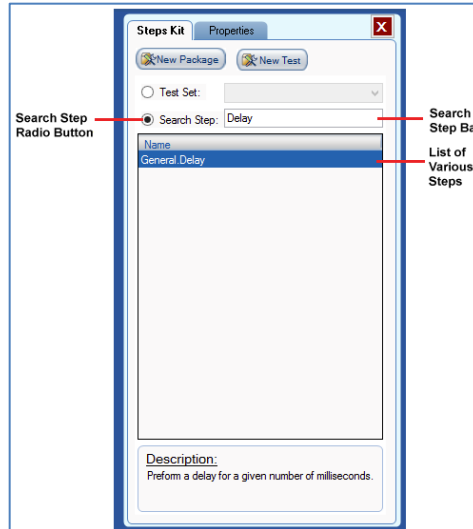
- The Required Features Window appears



3. Enter a unique **Name** for your new test, add a **Description**, **Required Features** and click **OK**.
4. The new test is loaded and displayed in the test pane. Add test steps, as described in the next section.
5. Repeat this procedure whenever you wish to add a new test.

8.3 Adding Steps to the New Test

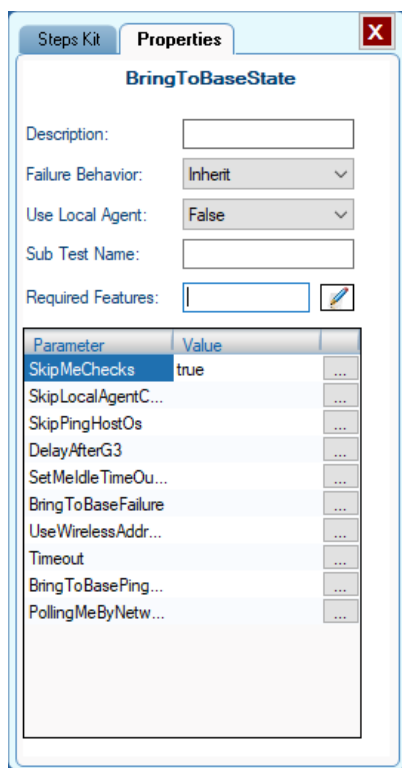
Select **Search Step** under the Steps Kit tab.



8.3.1 Configuring Step Properties

You can edit the following step properties in the Properties tab of the Package Design Mode panel:

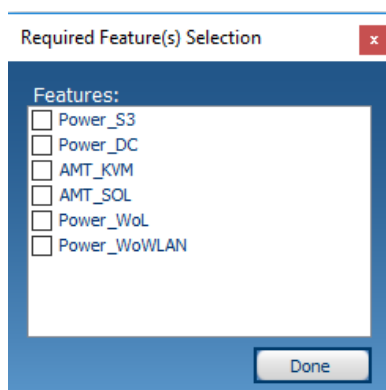
- Step **Description**.
- **Failure Behavior** - Enables you to instruct PETS how to proceed after a test step has failed. Possible values: {Inherit, Next Step, Next Sub Test, Next Iteration, Next Test, Stop, Manual}.
- **Use Local Agent** - Indicates whether the step should be executed on the local agent (SUT). Possible values: {True, False}.
- **Sub Test Name** - Indicates whether the selected step is the beginning of a sub test. (Sub test is another level of hierarchy and will result in GUI and reports). You only need to set this value for the first step in the sub test - do not configure this parameter for the other steps in the sub test.
- **Required features**- shows different kinds of features
- Setting Step **Parameters** - Each step has its own set of parameters depending on the functionality it provides. For example, the Ping step has the IP to ping and the Delay step has the total delay in seconds. For more information, refer [Configuring Parameters](#).



| Parameter | Value |
|--------------------|-------|
| SkipMeChecks | true |
| SkipLocalAgentC... | ... |
| SkipPingHostOs | ... |
| DelayAfterG3 | ... |
| SetMeldleTimeOu... | ... |
| BringToBaseFailure | ... |
| UseWirelessAddr... | ... |
| Timeout | ... |
| BringToBasePing... | ... |
| PollingMeByNetw... | ... |

Required Features let you Add Required Features to the selected test step in two ways:

1. Either by writing the Required Features in the text box
2. Or by clicking the **Configure Feature(s) selection** button which will open the below window that enables you to choose Prerequisites from the list to be added to the selected test step.



Required Feature(s) Selection

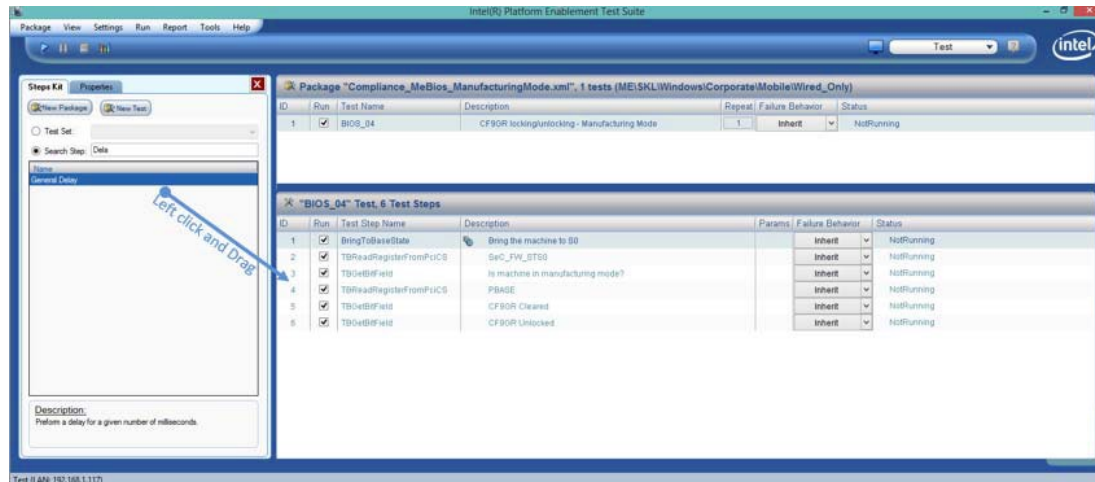
Features:

- ☐ Power_S3
- ☐ Power_DC
- ☐ AMT_KVM
- ☐ AMT_SOL
- ☐ Power_WoL
- ☐ Power_WoWLAN

Done

To add a step to a test:

Select the step to be added and drag it from the Package Design Mode panel to the Test Steps Data Grid view, as shown in the following figure.

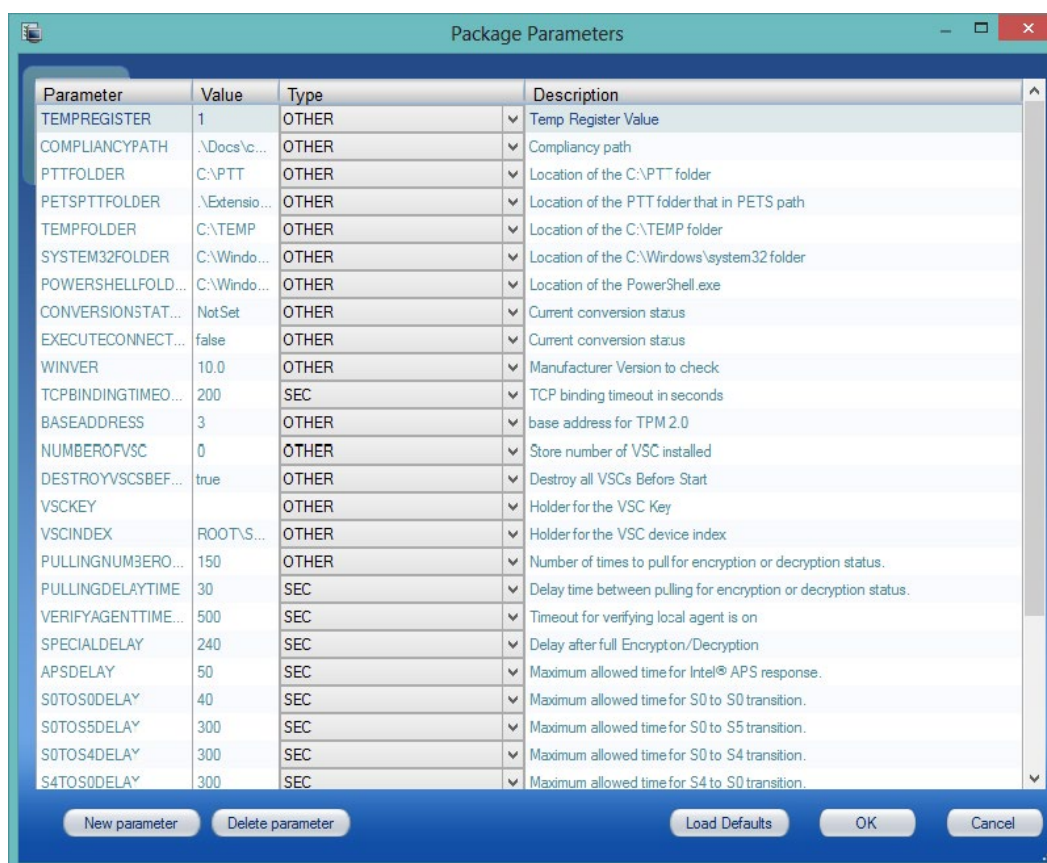


The step is added, the step IDs are rearranged, and the Steps Grid Header is updated.

8.4 Configuring Parameters

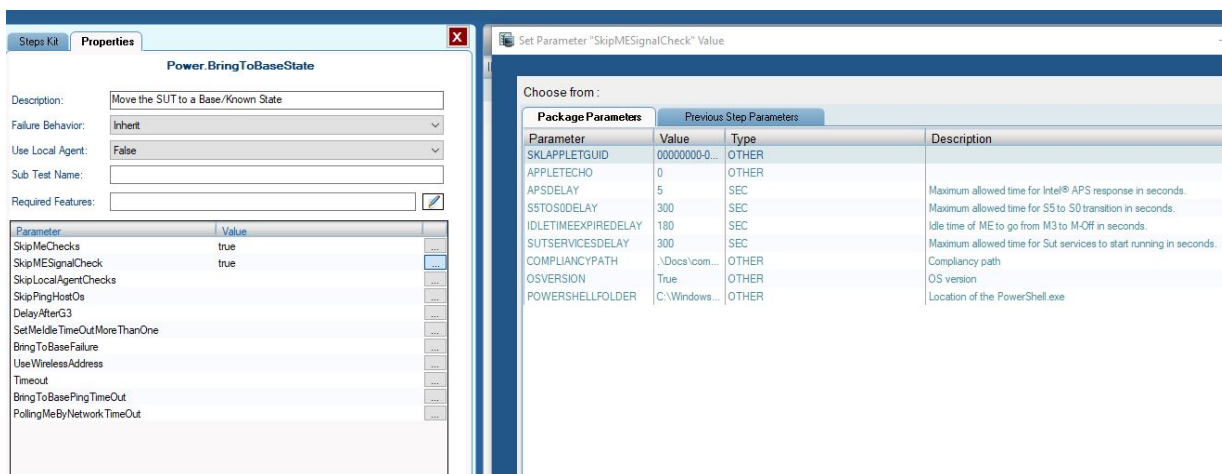
8.4.1 Configuring Package Parameters

When Package Design Mode is active you can modify, add, or remove any of the Package Parameters shown in the following figure.



8.4.2 Configuring Step Parameters

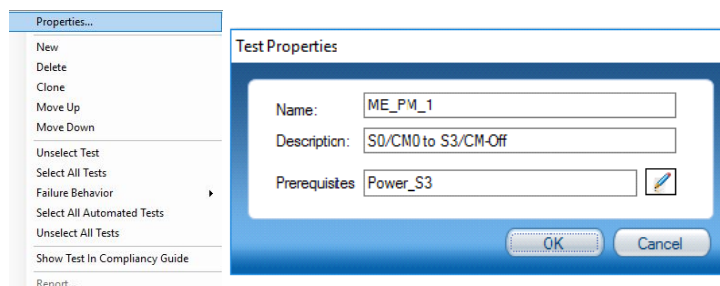
1. Access the Properties tab of the Package Design Mode panel.
2. Select a parameter to modify.
3. Do one of the following:
 - Insert an immediate value.
 - Click on the Browse symbol next to the parameter and select a value from the Package Parameters or the previous Step Parameters tabs.



8.5 Modifying Test Properties

Right-click a test and select **Properties**. The Test Properties dialog appears, enabling you to change the test properties.

The test is modified according to the user's changes.

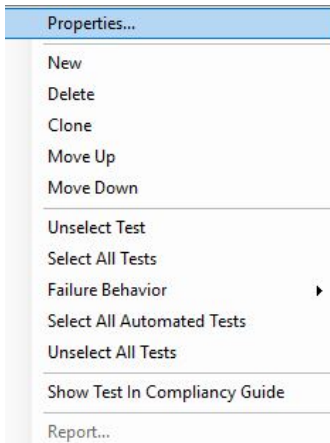


8.6 Cloning a Test

You can clone tests within a package by creating copies of all the test steps, including step parameters, and applying the same settings.

To clone an existing Test:

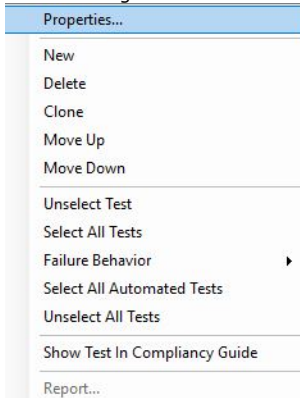
1. Right-click the desired test and select **Clone**.



2. Enter a unique name for the new test.
3. The test and its steps are cloned, including all the step parameters.

8.7 Removing a Test or Test Step

1. Right-click the desired test/step and select **Delete**.



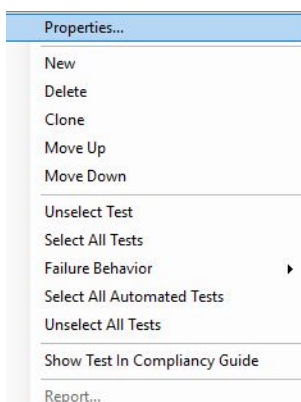
2. The test/step is removed from the test list. The step IDs are rearranged and the Steps Grid Header is updated.

Note: *If any following steps use the step you wish to delete, the system prompts you for confirmation before proceeding with the deletion.*

8.8 Moving a Test or Test Step Up/Down

To rearrange (reposition) items within a test list:

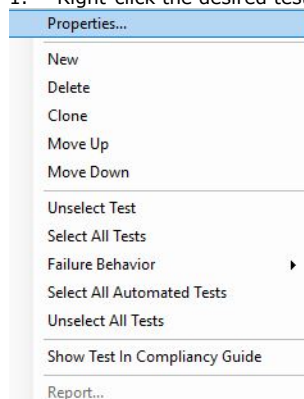
Drag and drop the desired test to the desired position in the list or right-click the test and select **Move Up** or **Move Down**.



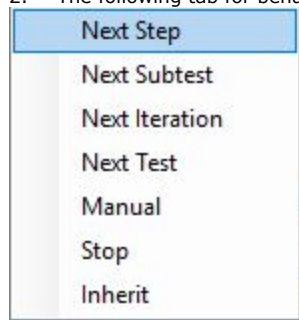
Note: If any following steps use the step you wish to reposition, the system prompts you for confirmation before proceeding with the move.

8.9 Failure Behavior

1. Right-click the desired test/step and select **Failure Behavior**



2. The following tab for behavior options appears:



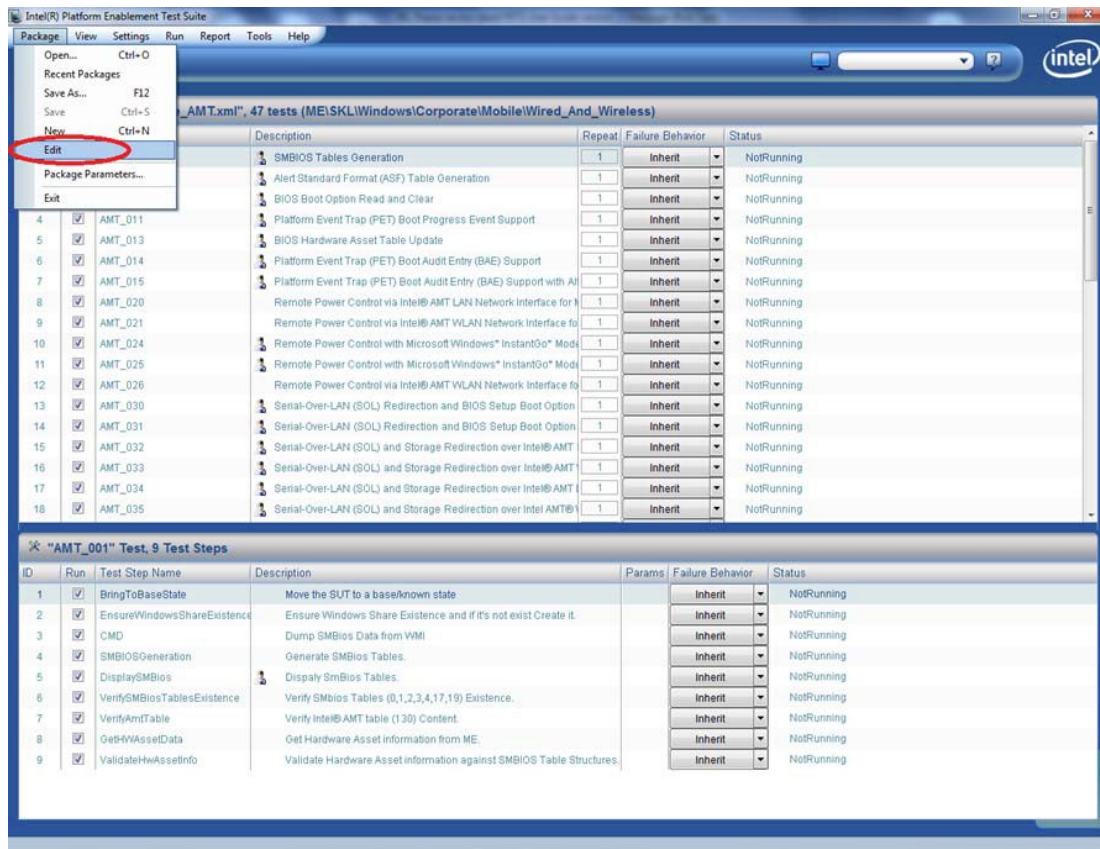
Note: description for each behavior options are found in [section 5.1.3 Using Intel® Platform Enablement Test Suite Windows](#)

8.10 Modifying an Existing Package

You can modify an open package and apply the changes as needed.

To edit an open/existing package:

1. If the package is not open, choose **Package > Open** from the Package menu to open the package.
2. From the main menu, choose **Package > Edit**



3. From the Open window, select a package.
4. Make the desired changes using the editing tools.

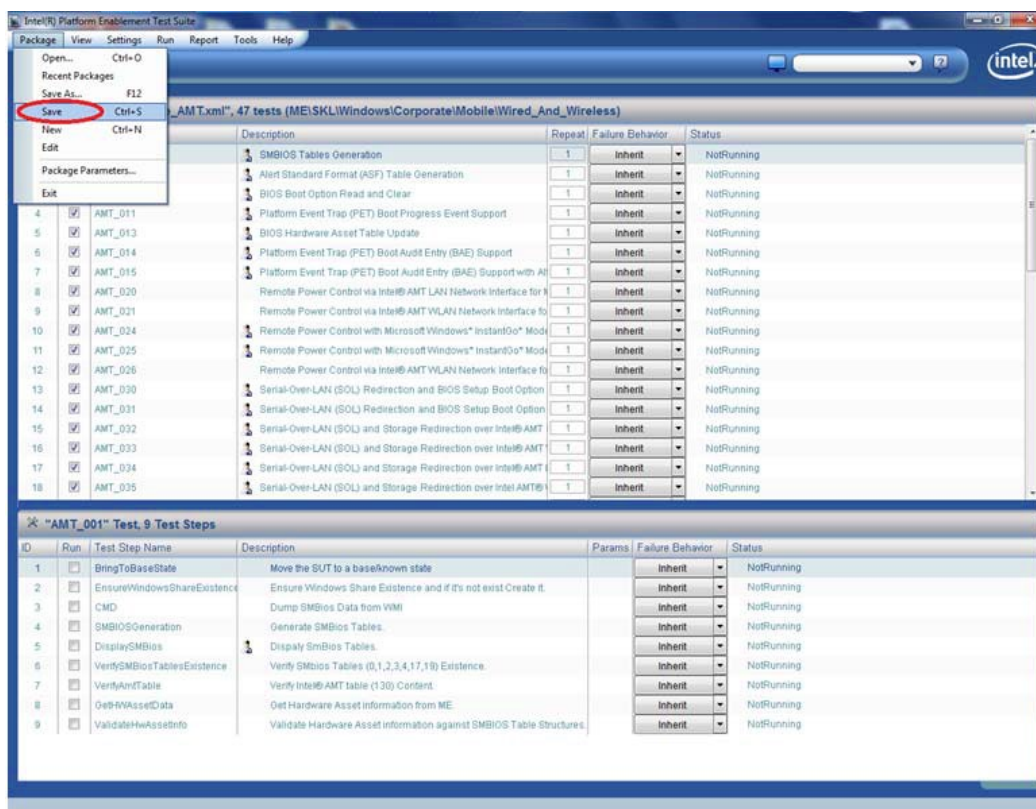
Note: The Edit Package option is only active if you have a package open in the GUI.

8.11 Saving a Package

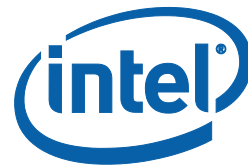
When Package Design Mode is active, PETS checks if the package has been modified. In this case, PETS prompts you to save unsaved changes.

To save the changed configuration of a test package as an original version:

- Choose **Package > Save**.

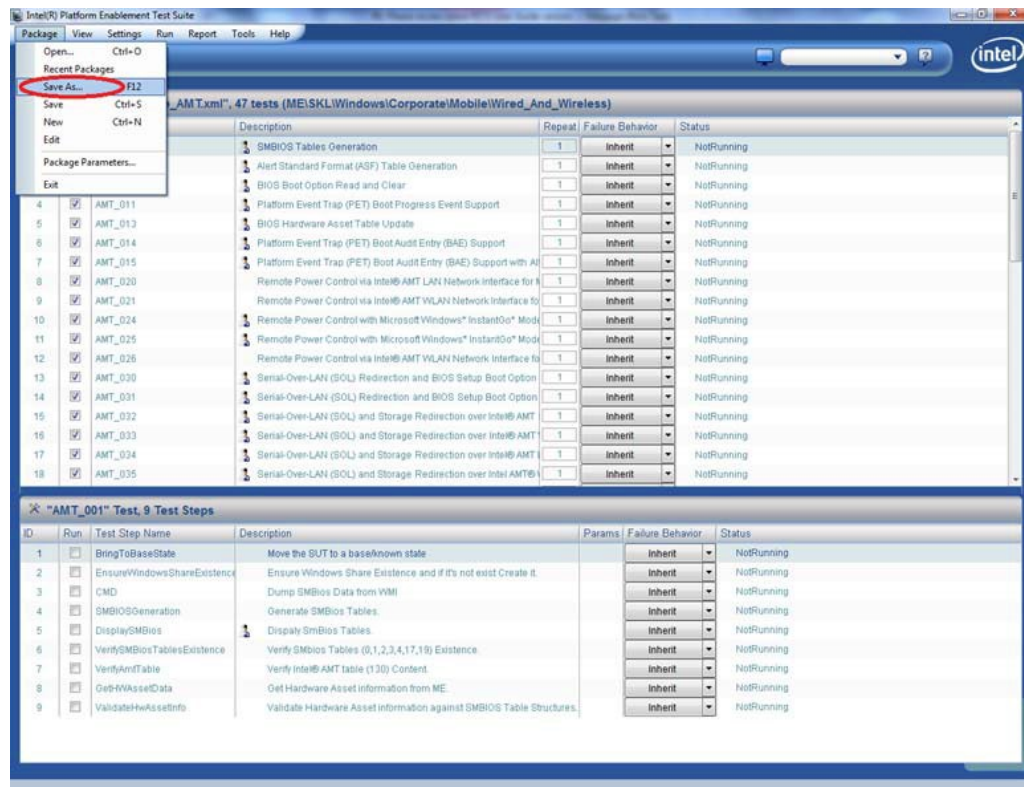


Typically, you can use this function when editing an existing package and you wish to save changes as you work (prevent loss of information if a crash occurs). **Save** replaces the original file.



To save the changed configuration of a test package as a new version:

1. Choose **Package > Save As**.



When you have created a new package from scratch or you are basing the new package on one you have already opened/edited. This is useful if you want to save an existing package with a new name and then make changes rather than start from scratch. **Save As** leaves the original package unchanged.

2. Enter the name of the new package in the **Name** field of the Save As dialog.
3. Specify the desired location and click **Save**. The new version of the test package is saved in the desired location.

Note:

PETS prevents you from saving an invalid package with a prompt message explaining the reason. The Package might be invalid for one of the following reasons:

- A test in the package has steps that use an invalid or non-existent package parameter.
- A test step is trying to read an input parameter from a step that does not exist.



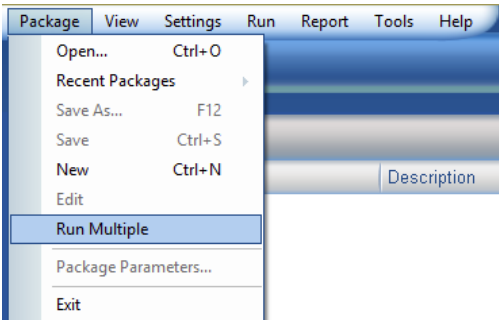
9 Running Multiple Packages

The PETS framework enables you to run multiple packages and save all the test results in an Excel file. This facilitates running automated tests overnight and reviewing the results when convenient.

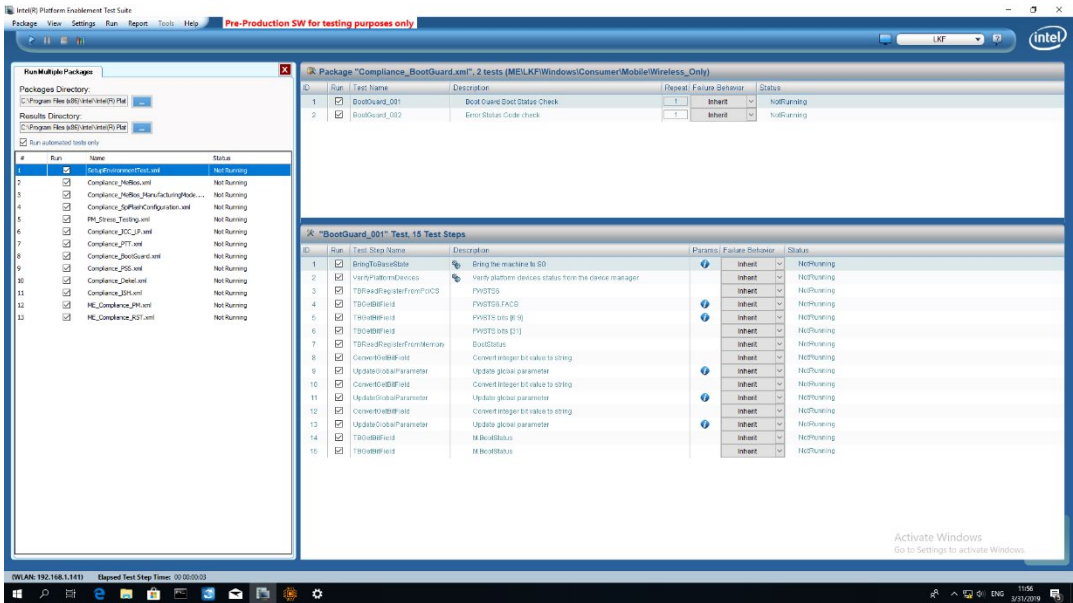
Note: To use this feature, you must configure a SUT with APS 3.x and this should be initialized; in case it is not Configured correctly, the menu item **Package > Run Multiple** is disabled.

To use run multiple packages:

- 1. Click **Package > Run Multiple**.



The Run Multiple Packages panel appears on the left side of the PETS interface displaying all the packages in the default directory of the selected SUT.



- 2. Set the **Packages Directory** (where package/s XML files are stored) and **Results Directory** (where tests results are stored.)



Run Multiple Packages

Packages Directory:

C:\Program Files (x86)\Intel\Intel(R) Plat

...

Results Directory:

C:\Program Files (x86)\Intel\Intel(R) Plat

...

☒ Run automated tests only

| # | Run | Name | Status |
|----|-------------------------------------|---|-------------|
| 1 | <input checked="" type="checkbox"/> | SetupEnvironmentTest.xml | Not Running |
| 2 | <input checked="" type="checkbox"/> | Compliance_MeBios.xml | Not Running |
| 3 | <input checked="" type="checkbox"/> | Compliance_MeBios_ManufacturingMode.... | Not Running |
| 4 | <input checked="" type="checkbox"/> | Compliance_SpiFlashConfiguration.xml | Not Running |
| 5 | <input checked="" type="checkbox"/> | PM_Stress_Testing.xml | Not Running |
| 6 | <input checked="" type="checkbox"/> | Compliance_ICC_LP.xml | Not Running |
| 7 | <input checked="" type="checkbox"/> | Compliance_PTT.xml | Not Running |
| 8 | <input checked="" type="checkbox"/> | Compliance_BootGuard.xml | Not Running |
| 9 | <input checked="" type="checkbox"/> | Compliance_PSS.xml | Not Running |
| 10 | <input checked="" type="checkbox"/> | Compliance_Dekel.xml | Not Running |
| 11 | <input checked="" type="checkbox"/> | Compliance_ISH.xml | Not Running |
| 12 | <input checked="" type="checkbox"/> | ME_Compliance_PM.xml | Not Running |
| 13 | <input checked="" type="checkbox"/> | ME_Compliance_RST.xml | Not Running |

3. Check **Run automated tests only** to run only automated tests or clear this option to run all the selected tests both manual and automated).

Run Multiple Packages

Packages Directory:

C:\Program Files (x86)\Intel\Intel(R) Plat

...

Results Directory:

C:\Program Files (x86)\Intel\Intel(R) Plat

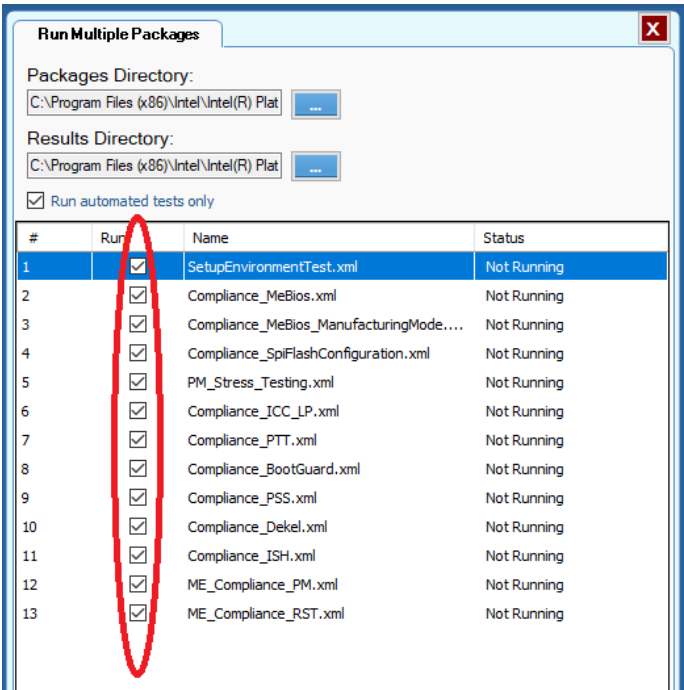
...

☒ Run automated tests only

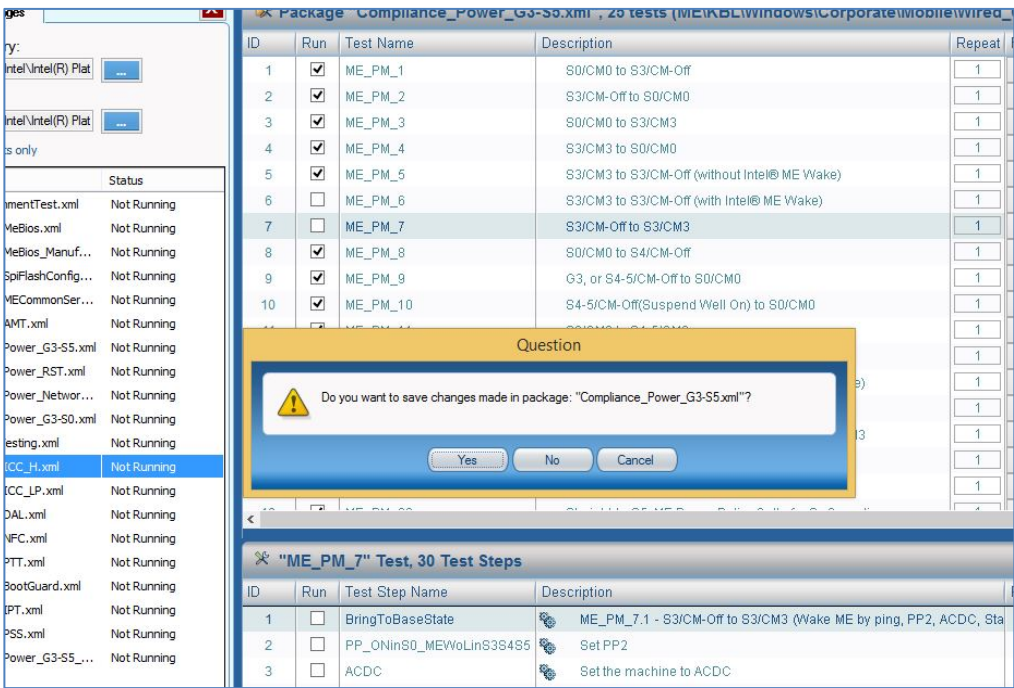
| # | Run | Name | Status |
|---|-------------------------------------|---|-------------|
| 1 | <input checked="" type="checkbox"/> | SetupEnvironmentTest.xml | Not Running |
| 2 | <input checked="" type="checkbox"/> | Compliance_MeBios.xml | Not Running |
| 3 | <input checked="" type="checkbox"/> | Compliance_MeBios_ManufacturingMode.... | Not Running |
| 4 | <input checked="" type="checkbox"/> | Compliance_SpiFlashConfiguration.xml | Not Running |
| 5 | <input checked="" type="checkbox"/> | PM_Stress_Testing.xml | Not Running |
| 6 | <input checked="" type="checkbox"/> | Compliance_ICC_LP.xml | Not Running |



4. Select or deselect packages, drag-and-drop packages to change the order of execution, and click the **Play** icon.

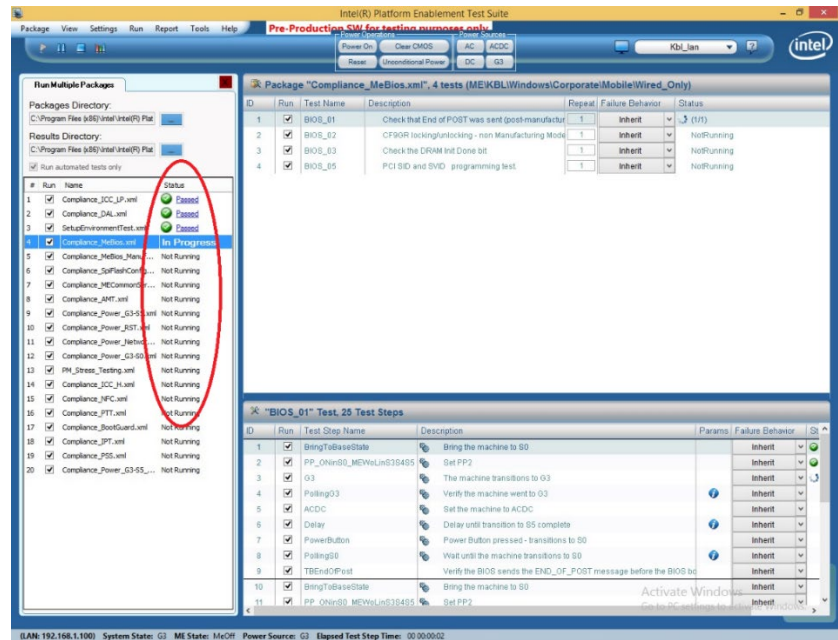


Note: When you make changes to any package, the system prompts you for confirmation before proceeding.

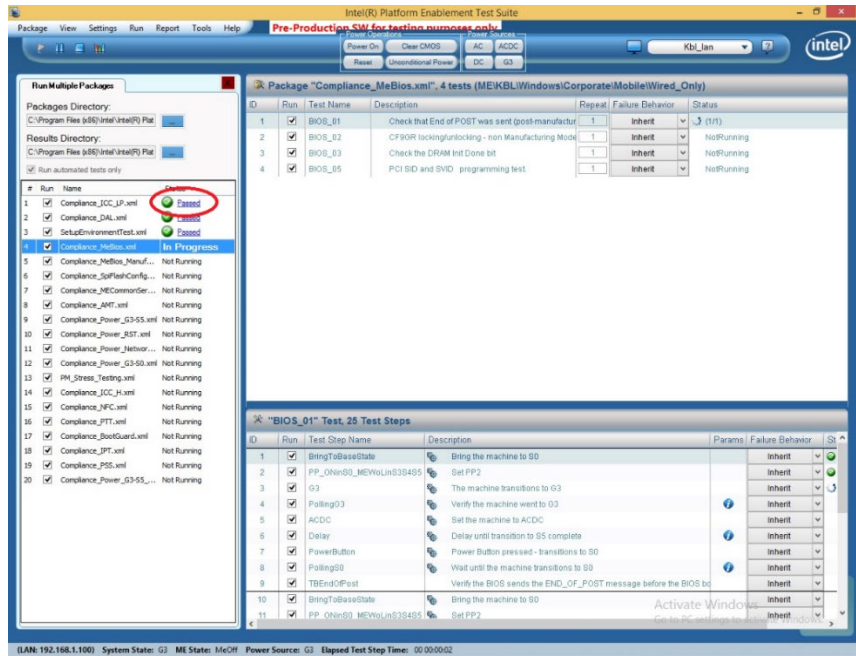




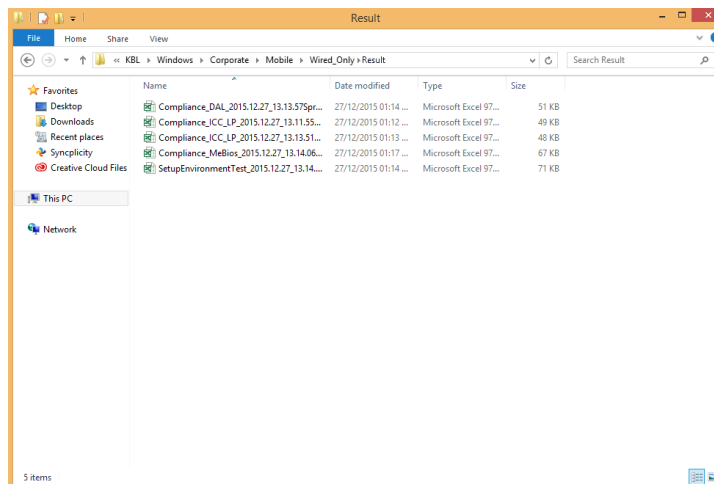
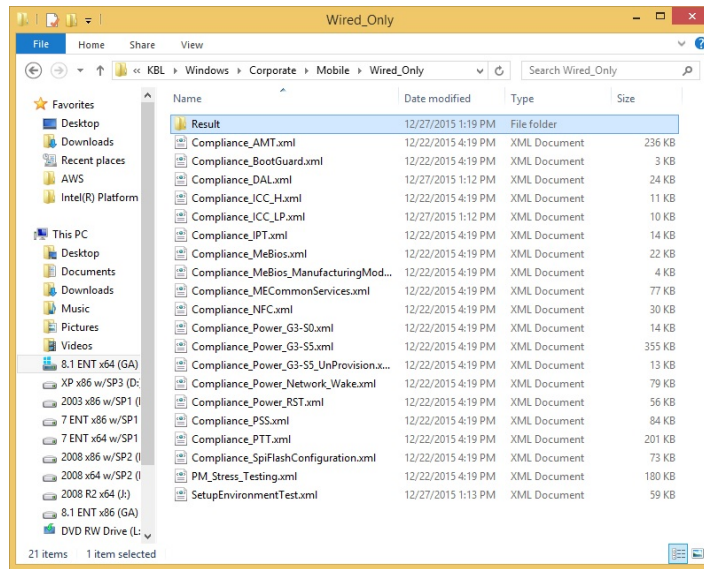
PETS runs the packages and displays a progress bar beside each package.



5. When a package has completed execution, you can click its status and open the standard PET results log.



PETS creates Excel logs simultaneously and stores them by default in the Results folder nested under the packages folder.



- The **Skipped** status is displayed if the package has no automated test (all tests are manual) or if the tests have been deselected.
- The **Passed** status is displayed if all the tests passed successfully.
- The **Failed** status is displayed all package tests failed.
- The **Partially Failed** status is displayed if some tests failed.
- The **Aborted** status is displayed when the user clicks Stop.
- The default value for the **Packages Directory** field is the default package folder for the selected SUT.



10 Intel® Platform Enablement Test Suite Package List

10.1 Introduction

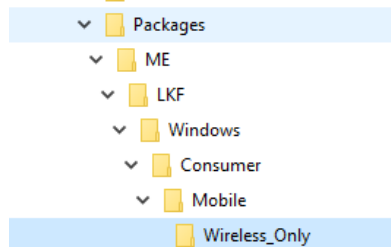
This document lists the packages provided with Intel® Platform Enablement Test Suite, and includes the name of the XML file of each package.

Note: For most packages, each Test Name maps to the Test ID of a test in the Compliance Requirements and Testing Guide. The exception is the Setup and Configuration package (SetupEnvironmentTest.xml); for details on the tests in this package.

10.2 Package List

Test packages are arranged by folders, as follows:

- PCH.
- Operating system (OS) for some platforms.
- Firmware size.
- Mobile.
- Wireless_Only.
- A full list of relevant packages and tests.



The packages themselves bear simple names, whereas in the past their names reflected all of the above options. Below is a complete list of the packages that are included in different folders. Only packages relevant to that folder will be included, and only tests relevant to that folder will be included within the packages (i.e., a package in 2 different folders may not have the same contents, even if it has the same name).

The Test Packages include:

- Platform Controller Hub (PCH) SoftStrap Configuration (Compliance_PSS.xml).
- Intel® Platform Trust Technology (Compliance_PTT).
- SPI Flash Configuration (Compliance_SpiFlashConfiguration.xml).
- Intel® Management Engine BIOS Compliance (Compliance_MeBios.xml)
This package requires that Intel® APS to be connected to the system under test.
- ME BIOS Manufacturing mode package (Compliance_MeBios_ManufacturingMode.xml)
This test runs in pre-manufacturing mode.
- Setup Environment Check of Intel® Platform Enablement Test Suite (SetupEnvironmentTest.xml)
Checks ME Connectivity setup, Local Agent and SUT connectivity setup, and Intel® APS setup.
Should be run after Intel® Platform Enablement Test Suite is installed and whenever the environment is changed.



This package requires that the Intel® APS to be connected to the system under test.

Note:

For details on the tests in this package, see section: 5.4.1 ["Testing the Configuration of the SUT"](#).

- Intel® Management Engine FW Power Management - BIOS Setting: S5 after Exiting G3 (ME_Compliance_PM.xml)
This package requires that Intel® APS to be connected to the system under test.
- Integrated Clock Controller (ICC) - LP (Compliance_ICC_LKF)
- Dynamic_Appl_Loader(Compliance_DAL)
- Intel® Power Reset (Compliance_Power_RST)
- Intel® Boot Guard (Compliance_BootGuard)
- Intel® ME Power Management Stress Test Coverage Summary (PM_Stress_Testing.XML)
- Compliance_Dekel
- Compliance_Dnx_blank
- Compliance_Dnx_OSProvisioned
- ISH FW Compliancy (Compliance_ISH)
- Compliance_UFS_Blank
- Compliance_UFS_OSProvisioned