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## VTune(TM) Performance Analyzer for Linux\* OS Installation Guide

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### Introduction

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The installation program installs the VTune(TM) Performance Analyzer on your system.

If you already have VTune analyzer or its components installed on your system, this install program uninstalls them before installing a new version.

The following directory map indicates the default folder structure of the files after installing with the default settings. If you choose option 6. Advanced installation options, you may not see all these directories.

```
+-- opt
|
+ -- sag (EntireX package directory)
|
+ -- intel
|
+-- eclipsepackage (Eclipse* package)
|
+-- vtune (<installdir> for the VTune analyzer files)
|
+-- bin (binaries and executable files)
|
+-- doc (documentation files)
|
+-- man (man pages and files associated with this product)
|
+-- rdc (VTune analyzer Remote Agent)
|
+-- samples (VTune analyzer getting started sample files)
|
+-- vdk (VTune analyzer driver kit)
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### Installing the VTune analyzer

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You can install the VTune analyzer using the interactive installation that requires you to define several settings during the installation, or the silent install option that installs the VTune analyzer using settings that are defined in a silent install configuration file. For information on creating a silent installation configuration file and using the silent install option, see

the <install\_dir>/doc/Admin\_Guide.txt

To install the VTune analyzer on your system, using the interactive installation do the following:

1. Start the install program, from the web site, or from an installation CD.
2. Enter your license number, or specify the directory where the license file is located.
3. Read and accept the license agreement.
4. At the INSTALL OPTIONS menu, verify the current settings listed in square brackets []. To edit the settings, enter the option number.
5. After editing the option, enter 'b' to go back to the INSTALL OPTIONS screen. Repeat for all options that you wish to edit.
6. After verifying that all the options are set correctly, enter '1' to start installation.

See additional information on the selections in this guide, or click 'h' to see information on the current menu.

When using the installation program, each screen includes the following sections

- Introductory section with basic information on the features to be installed
- Options section that lists the options that you can select for configuring the installation of this feature.
- Navigation section that enables you to navigate in the installation program.

These are the navigation options:

- b. Back to the previous menu.
- h. Help. Choose this to view additional information on this option.
- x. Exit. Choose this to abort the install program. This option uninstalls any components already installed.

The following sections provide information on the different selection options and when to use them.

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## INSTALL OPTIONS Menu

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This screen shows the current install settings. To install using these settings, enter '1'. To change a setting, enter its corresponding option number and make the change as instructed. When you return to this screen, your settings appear in the square brackets []

- 
1. Start installation.

Use this option to install the the VTune analyzer with the options shown in square brackets [].

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## 2. Installation directory

Use this option to change the directory in which the VTune analyzer will be installed.

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## 3. VTune analyzer group

Use this option to choose the user group that will be used for VTune analyzer. You can specify a local or network (NIS) group.

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## 4. Driver kit options...

Use this option to download or build a driver for your system. The driver is required for the sampling feature of the VTune analyzer.

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## 5. Eclipse options...

Use this selection to install a new Eclipse instance, or integrate the VTune analyzer graphic user interface into an existing instance of the Eclipse platform.

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## 6. Advanced options...

Use this option change the directories where collected data will be stored or select individual components to install. Choose this option when you wish to collect performance data on one system and view the results from a different system.

Press <Enter> to continue.

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### Option 2. INSTALLATION DIRECTORY Menu

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By default, the installation directory is: /opt/intel/vtune.

- To change this directory, enter a different path.
- To cancel your configuration changes, delete your input and press <Enter>

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### Option 3. VTUNE ANALYZER GROUP... Menu

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To run the product, you must be a member of the same group as the product.

- You can specify a group name, or use the default group name 'vtune'.
- The installation searches for the specified name, if it is not found, it creates a local group with the specified name.
- If a network group is required, you need to create it before proceeding.
- After the installation you need to add users of the product to the group manually.
- To cancel your configuration changes, clear your input and press <Enter>

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## Option 4. DRIVER KIT OPTIONS... Menu

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Use these options to select how to obtain a VTune analyzer driver for your system.

The driver is required for the sampling feature of the VTune analyzer.

By default, the installation tries to use one of the pre-built drivers available with the installation. The drivers available as part of the installation, are listed in `Release_Notes.htm`.

After selecting an option on how to get the driver, you can select 'Advanced options' to change the configuration of the build and/or download settings.

Choose one of the following options:

1. Use auto configuration. If there is no pre-built driver for your system, choose this option for best results. When you choose this option the installation program attempts to build a driver for your system. If unsuccessful, it attempts to download an appropriate driver from the internet. If this is unsuccessful, it does not install the driver and notifies you that there is no driver. If this occurs, you will need to build the driver manually after this installation completes. The instructions will be located in:  
<installdir>/vdk/src/doc/HOWTO-BUILD-VTUNE-DRIVER.
2. Use a prebuilt driver. This option is the default, if one is available for your system. If a pre-built driver is not available for your system, this option is denoted with '(n/a)' next to it. When available, choose this option for best results.
3. Build driver. Use this option to build a driver for your system's kernel. You can select 'Advanced options' to configure the build settings. If this system does not contain the necessary header files and tools to complete the build successfully, you will need to build the driver manually after this installation completes. The instructions will be located in:  
<installdir>/vdk/src/doc/HOWTO-BUILD-VTUNE-DRIVER.
4. Download a driver. Use this option to download a driver from the internet. The installation will look for a driver that is suitable for your system's kernel in: <http://www.intel.com/software/products/vtune/drivers>. To configure the proxy connection, select 'Advanced options'. If a driver is not found, you will need to build the driver.
5. Do not install driver. Use this option to skip the installation of the driver at this time. You can build the driver manually after this installation completes, if you wish to use the sampling feature of the VTune analyzer. The instructions will be located in:  
<installdir>/vdk/src/doc/HOWTO-BUILD-VTUNE-DRIVER.

6. Advanced options. Use this option to change the default settings for the build and download options above.

Your choice is marked with <\*>. After making your choice enter 'b' to go back to the previous menu and continue the installation.

Press <Enter> to continue.

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## DRIVER KIT OPTIONS | ADVANCED OPTIONS Menu

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Use the this menu to change the default settings for the driver build and download options. The following options apply to building a driver:

1. Kernel source directory. Select this option to specify the location of the kernel header files on this system. If these header files are not located on the system the driver build will fail.
2. C compiler to use. Select this option to specify the path and name of the C compiler to use for building the driver. By default, the gcc compiler is used.
3. Make command to use. Use this option to specify the path and name of the make command to use for building the driver. By default, the standard make is used.

The following options apply to the driver installation:

4. Load driver. Use this option to indicate if the driver should be loaded into the kernel. If the driver is not loaded, the sampling feature in the VTune analyzer will not be functional. Selecting this option toggles the value between yes and no.
5. Install boot script. This script runs each time the system is rebooted. The script automatically verifies kernel/driver compatibility and loads the VTune driver into the kernel. If the boot script is not installed, then you need to load this driver into the kernel manually after each system reboot in order to use the VTune analyzer sampling feature. Selecting this option toggles the value between yes and no.

The following option applies only when downloading a driver:

6. Proxy. Select this option if your system requires a proxy to access the internet. Enter the proxy as 'proxy\_server\_name:port'.  
For example: proxy.company\_name.com:8080
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## Option 5. ECLIPSE OPTIONS... Menu

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Use these options to configure the Eclipse installation.

Choose one of the following options:

1. Install to. Use this option to install a new version of Eclipse and choose the installation directory.
2. Integrate to. Use this option to integrate with a previously installed version of Eclipse and to select its location. (Eclipse v3.2.1 is required for integration.)
3. Do not install. Choose this option to use only the command-line version (vtl) of the VTune analyzer and skip the Eclipse installation. You can install, or integrate into an existing instance of Eclipse at a later date.
4. Package type. Use this option in conjunction with option '1' to select which version of Eclipse should be installed. Select this option to toggle between GTK and Motif package types.

Press <Enter> to continue.

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## Option 6. ADVANCED OPTIONS... Menu

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Use these options to install a subset of the components or modify the location where global data will be stored during performance monitoring.

Choose one of the following options:

1. Installation type. Select this option to install only the analyzer component or only the data collection component. Use this option to install on systems that will be used exclusively for viewing performance results, or collecting performance data, but not both.
2. Global data directory. Select this option to change the directory in which global data will be stored during performance monitoring on this system. All users in the VTune analyzer's group share this space.
3. RDC global data directory. Select this option to change the directory in which global data will be stored during performance monitoring on any remote system. All users in the VTune analyzer's group on the target system share this space.
4. Use single Group ID. Select this option to toggle on or off the enhanced

security of the installed files.

If 'on', the installation will force all components to install under a single group ID thereby restricting access to its directories to those within the group. By default, this group ID is 'vtune'. You can change the group ID from the main install menu.

NOTE: if you select a network group, a non-interactive user named 'vtunesag' must be created and added to that group prior to completing this install. If there is no user named 'vtunesag', the install will show an error message and exit.

Set to 'off' only if you are using a network group and cannot add a 'vtunesag' user to it.

Choose a selection to configure the components that are installed and go back to the previous menu. The previous menu now shows your selection in the brackets [].

Press <Enter> to continue.

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## ADVANCED OPTIONS | INSTALLATION TYPE Menu

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Use these options to select which components to install.

The VTune analyzer consists of two separate components, the VTune analyzer and collectors. The analyzer is used to configure, start, and analyze the results of performance monitoring activities. The collectors record the performance data during execution. These components can be installed together on the same system or individually on different systems.

Choose one of the following options:

1. Full install. This installs both the VTune analyzer and the collectors components on this system. Select this option if the system used to configure and start performance monitoring activities is also the target system where those activities are executing.
2. VTune analyzer only. This installs the analyzer component only. The analyzer enables configuring and controlling the collection of data on other systems. Select this option if the system is used only for configuring, starting, and viewing performance monitoring activities that are executing on other target systems. The collectors component must be installed on the target systems.
3. Collectors only. This installs the collectors component only. The collectors component enables collecting performance data on this system. Select this option if the system will be used to collect data only. The VTune analyzer component must be installed on a different system in order to start the collectors and view the results.

Press <Enter> to continue.

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