Intel® Advisor 2019 Update 4

Release Notes

20 May 2019

Customer Support

For technical support, including answers to questions not addressed in this product, visit the technical support forum, FAQs, and other support information at:

- https://software.intel.com/en-us/advisor/support/get-help
- http://www.intel.com/software/products/support/
- https://software.intel.com/en-us/advisor

Please remember to register your product at https://registrationcenter.intel.com/ by providing your email address. Registration entitles you to free technical support, product updates and upgrades for the duration of the support term. It also helps Intel recognize you as a valued customer in the support forum.

NOTE: If your distributor provides technical support for this product, please contact them for support rather than Intel.

Contents

1   Introduction

Intel® Advisor 2019 Update 4 provides two tools to help ensure your Fortran, C and C++ (as well as .NET on Windows*) applications take full performance advantage of today's processors:

- **Vectorization Advisor** is a vectorization analysis tool that lets you identify loops that will benefit most from vectorization, identify what is blocking effective vectorization, explore the benefit of alternative data reorganizations, and increase the confidence that vectorization is safe.
- **Threading Advisor** is a threading design and prototyping tool that lets you analyze, design, tune, and check threading design options without disrupting your normal development.

This document provides system requirements, issues and limitations, and legal information.

To learn more about this product, see:

- New features listed in the What's New section below.
- The help document at https://software.intel.com/en-us/advisor-user-guide

2   What's New

Intel® Advisor 2019 Update 4

- Intel Advisor has been updated to include more recent versions of 3rd party components, which include functional and security updates. Users should update to the latest version.
- Removed requirement for flock operation in file systems. Previously Advisor failed when flock was disabled, requiring projects to be kept locally. It should now run smoothly on file systems like Lustre*.
- Added per-loop and per-application recommendations to the Summary pane. This replaces and expands on the "top 5 recommendations" section which was removed in the previous update.
- Survey and Code Analytics now support and identify which loops/functions use CLX VNNI instructions, which are often used in neural network applications.
- Column configurator has been extended to the Top-Down pane. Previously this customization feature was limited to the Survey pane.
- FLOPS and Trip Counts collections now extend existing data rather than replacing it. For example, if Trip Counts are collected, and then a second analysis is run to collect FLOPS only, the FLOPS data will be added to the result without removing the Trip Counts.
- New Preview Feature: Roofline Guidance in Code Analytics. This feature is intended to make the Roofline chart easier to understand and use. Enable by setting the environment variable `ADVIXE_EXPERIMENTAL=roofline_guidance`
- Support for Microsoft* Visual Studio* 2019 added.
- Flow Graph Analyzer:
  - Support for Red Hat Enterprise Linux* 7 restored.
  - Bug fix to restore graph properties after interaction with hierarchical view.
  - Added support for the use of edges across graphs. This use case is restricted by default, but can be enabled from the Preferences dialogue.

Intel® Advisor 2019 Update 3

- Improved Summary pane with a sleeker look and better program-level issue highlighting, including a new block with memory bandwidth information.
- Survey columns can now be customized using the column configurator. Configurations can be saved for later use.
- Cache Simulator configuration dialog allows visual configuration of different cache levels for Memory Access Patterns analysis.
- Simplified installation and licensing (serial numbers and license files are no longer required for this product).
- Roofline improvements:
  - Improved Roofline comparison feature visually distinguishes the compared result sets. Advisor automatically maps corresponding dots from compared results to each other with arrows and displays FLOPS delta. Filtering the roofline also takes compared results into account.
  - Roof values can be adjusted to the number of sockets used on the system to achieve more accurate performance ceilings for applications using thread pinning (such as MPI applications pinning ranks to sockets).
  - You can now export roofline snapshots in SVG format for high-quality pictures.

- o Added zone highlighting to the Roofline to visually indicate what types of bottleneck apply to dots based on position.
        - o Added automatic smart roof selection that highlights relevant roofs based on the types of instruction present.
    - Flow Graph Analyzer improvements:
        - o Flow Graph Analyzer can be launched from Advisor GUI on Windows and Linux.
        - o Can now display execution traces on CPU/core swimlanes in the timeline charts.
        - o Can now select different layout schemes for the tree-map view with the squarified layout being the default.
        - o Tree-map display performance improved by caching the computation in the metaxml file.
        - o Scalability analysis now abridges long-running computations. Users have control over how much they want a computation abridged.
        - o Support for TBB's lightweight policy added to scalability analysis.
    - Support for Fedora* 29 added.

Intel® Advisor 2019 Update 2

- Intel® Advisor 2019 Update 2 includes functional and security updates. Users should update to the latest version.

Intel® Advisor 2019 Update 1

- Ability to switch between "all integer operations" and "pure compute integer operations" in the Survey Grid column settings
- Ability to export Integer and INT+FLOAT operations Roofline html report via command line interface
- Detecting usage of VNNI instructions in Traits column
- Introduced 64-bit Graphical User Interface on Windows*, that allows working with huge results
- Added "expand sub-tree" context menu option to Top-down tree, simplifying exploring long call chains
- Decreased overheads for Trip Counts, FLOPS and Roofline analyses with stacks collection
- Integrated Roofline (Preview):
    - o Ability to select mode of memory-related metrics by cache level and memory operations type (Loads, Stores, both operations) in the Survey Grid column settings
    - o Ability to export Roofline html report for different memory levels and operation types via command line interface
- Recommendations enhancements:
    - o Added recommendation for Reciprocal instruction in AVX512
    - o Added recommendation to enable code alignment with `#pragma code_align` for efficient use of L1 instruction cache
    - o Added recommendation on vector length overriding in ICC 2019
    - o Updated recommendation "Use the Fortran 2008 CONTIGUOUS attribute" by adding new compiler options
- New OS support:
    - o Red Hat* Enterprise Linux* 6.10
    - o Ubuntu* 18.10

Intel® Advisor 2019

- Optimize integer calculations using Integer roofline analysis

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- *Preview feature:* Integrated Roofline showing which exact memory layer is the bottleneck for each loop. To enable this functionality set the environment variable `ADVIXE_EXPERIMENTAL=int_roofline`.
- macOS* user interface to view and analyze data collected on Linux* or Windows*
- Get a more accurate memory footprint and check multiple hardware configurations with cache simulation
- Productively prototype graph algorithms with Flow Graph Analyzer.
- Reduce overhead for faster analysis results using selective profiling
    - Decreasing overhead for Memory Access Patterns and Dependencies analyses via limiting loop call count and analysis duration in project properties.
    - Selective profiling for Roofline, FLOPS and Trip Counts collections to decrease analysis scope and decrease overhead
- Roofline enhancements:
    - Share results with colleagues by exporting a dynamic HTML copy of the roofline analysis.
    - "Filter-in" arbitrary subset of dots on Roofline chart for simplifying complex charts analysis and saving only selected dots to bitmaps.
    - Ability to adjust the Roofline to a custom number of threads to see the practical performance limits for a given application.
    - Roofline benchmarks are now synchronized for multi-rank MPI applications, so that the roof values will be the same on all ranks running on the same physical node.
    - Ability to compare several roofline results on the same chart
- Recommendations:
    - New recommendation to optimize standard algorithms in C++ with Parallel STL.
    - User code specific parameters for recommendations, such as certain value of suggested unroll factor or function name to be inlined.
    - Recommendation to use non-temporal store (NTS) instructions to improve memory bound application performance.
- Usability improvements:
    - Font size can be now customized in Options menu. This may help to adjust GUI appearance in SSH X-forwarding sessions.
    - Ability to select loops in command line by source file and line: `advixe-cl --mark-up-loops --select main.cpp:12,other.cpp:198`
- New OS support
    - Fedora* 28
    - Red Hat* Enterprise Linux* 7.5
    - Microsoft* Windows* 10 build 17134
    - Ubuntu* 18.04
    - SUSE* Linux Enterprise Server* 12 SP3
    - SUSE* Linux Enterprise Server* 15
    - macOS* 10.11.x, 10.12.x and 10.13.x

3   System Requirements

Supported Architectures and Terminology

Intel® Advisor supports the following architectures:

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- **IA-32 Architecture** refers to systems based on 32-bit processors generally compatible with the Intel Pentium® processors (for example, Intel® Pentium® 4 processor or Intel® Xeon® processor), or processors from other manufacturers supporting the same instruction set, running a 32-bit operating system.
- **Intel® 64 Architecture** refers to systems based on IA-32 architecture processors which have 64-bit architectural extensions, for example, Intel® Core™ architecture processors, running a 64-bit operating system such as Microsoft Windows 8* x64 or a Linux* "x86_64" variant. If the system is running a 32-bit operating system, then IA-32 architecture applies instead.

Hardware Requirements

- At least 2 GB of RAM
- 650 MB free disk space required for all product features and all architectures.
- A system based on an IA-32 or Intel® 64 architecture processor supporting the Intel® Streaming SIMD Extensions 2 (Intel® SSE2) instructions (Intel® Pentium 4 processor or later, or compatible non-Intel processor or Intel® Xeon® Scalable Processors)
    - o Since the Intel® Advisor requires specific knowledge of assembly-level instructions, its analysis may not operate correctly if code contains non-Intel instructions. In this case, run the analysis with a target executable that contains only Intel® instructions. After you finish using the Intel® Advisor, you can use the assembler or optimizing compiler options that provide the non-Intel instructions.
    - o For the best experience, a multi-core or multi-processor system is recommended

Software Requirements

NOTE: On Linux*, the X.Org X11 libXss runtime library must be installed for the Intel® Advisor GUI.

- Supported operating systems:
    - o Microsoft Windows* 8.1 operating system
    - o Microsoft Windows* Server 2012, 2012 R2 and 2016
    - o Microsoft Windows* 10 operating system (up to build 1809)
    - o Red Hat* Enterprise Linux* 7 (including 7.5)
    - o CentOS* versions equivalent to Red Hat* Enterprise Linux* versions listed above
    - o Fedora* 27, 28, and 29 (`pangox-compat` package should be installed)
    - o SUSE* Linux Enterprise Server* 11, 12 (up to SP3) and 15
    - o Debian* 8 and 9
    - o Ubuntu* 16.04, 18.04, and 18.10
    - o Viewer only: macOS* 10.13 and 10.14

    NOTE: The following operating systems are not supported by Flow Graph Analyzer: SUSE* Linux Enterprise Server* 11, Debian* 8, and Fedora* 27.
    NOTE: Support for the following operating systems will be removed in a future release: Microsoft* Windows* Server 2012, Fedora* 27 and 28, SUSE* Linux Enterprise Server 11, Debian* 8, and macOS* 10.13.
- Supported Microsoft* Visual Studio* (and Microsoft Visual C++* compiler) versions:
    - o Microsoft Visual Studio* 2013
    - o Microsoft Visual Studio* 2015
    - o Microsoft Visual Studio* 2017

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- o   Microsoft Visual Studio* 2019

  NOTE: Support for Microsoft* Visual Studio* 2013 and 2015 will be removed in a future release.
- Supported compilers:
  - o   Intel® C++ Compiler 15 or higher
  - o   GNU* C/C++ Compiler 3.4.6 and higher (Linux*)
  - o   Intel® Fortran Compiler 15 or higher (Linux*)
  - o   Intel® Visual Fortran Compiler 15 or higher (Windows*)
- Application coding requirements
  - o   Supported programming languages:
    - ▪   Fortran
    - ▪   C
    - ▪   C++
  - o   Supported threading methodologies:
    - ▪   Intel® Threading Building Blocks (Intel® TBB)
    - ▪   Intel® Cilk™ Plus
    - ▪   OpenMP*
    - ▪   Windows* and POSIX Threads (low-level)
- Managed application coding requirements
  - o   Supported programming languages:
    - ▪   C# (.NET* versions 3.0 to 4.0)
  - o   Supported threading methodologies
    - ▪   C# Thread Class
    - ▪   Microsoft* Task Parallel Library (TPL)
- To view PDF documents, use a PDF reader, such as Adobe Reader*.
- To enable automatic product updates with the Intel® Software Update Manager, use Java* version 1.6 or higher.

NOTE: Intel® Advisor samples work with the Intel® Threading Building Blocks (Intel® TBB) by using the environment variable TBBROOT. Intel® TBB is included with the Intel® compiler and is available from http://software.intel.com/en-us/intel-tbb/ . To build the Intel® TBB projects, you will need to define the TBBROOT environment variable. To set the TBBROOT environment variable, see the Intel® Advisor Help or Getting Started Tutorial.

4   Where to Find the Release

If you have a qualifying license for this product (i.e. an unexpired free license or a paid license with active support at the time of the build date for this product release), you can download the installer by logging in to https://registrationcenter.intel.com/ and selecting the appropriate product.

You may need to create an account and/or register your product. For additional information please see:

- https://software.intel.com/en-us/faq/registration
- https://software.intel.com/en-us/faq/downloading

5   Installation Notes

Installation of Intel® Advisor removes any earlier minor versions of the product within the same major version that are installed on the system. Different major versions can co-exist with each other; however, on Windows*, only one version can be integrated with a particular version of Microsoft* Visual Studio* at once.

On Windows*, double-click on the compressed self-extracting executable file as a user with administrative privileges to begin installation. Select the full installation option to use default install settings and get the complete set of user interfaces (which includes a GUI front-end for using the product as well as Microsoft* Visual Studio* integration). To learn details of silent non-interactive installation on Windows* systems, refer to http://software.intel.com/en-us/windows_silent_installation_guide .

On Linux*, perform the following steps:

1. Uncompress the package:
   ```
   gunzip <package-name>.tar.gz
   ```
2. Extract the files:
   ```
   tar xf <package-name>.tar
   ```
3. Make sure you have read and write permissions for the `/tmp` directory and start the installation. To install on a local system enter the following:
   ```
   cd <package-name>
   ./install.sh
   ```

   > **NOTE:** If you want to install the software for use by any user, you must do this as the root user. To install to a network-mounted drive or shared file system for multiple users, enter (as root user):
   > ```
   > cd <package-name>
   > ./install.sh --SHARED_INSTALL
   > ```

4. Follow the prompts to complete the installation of the software.

Intel® Software Manager

Intel® Software Manager installs with Intel Software Development Products on Windows* operating systems. Intel Software Manager is a utility that lets you:

- Download and install updates for your Intel® Software Development Products.
- Manage subscription status of installed software.
- Activate serial numbers.
- Find out about the latest news for Intel Software Development Products.

Intel Software Manager requires an Internet connection to connect to a remote server for information and updates.

For more information about the Intel Software Manager, see https://registrationcenter-ssl.intel.com/Docs/ism.htm .

Default Installation Folders

The default top-level installation folders for this product are:

- Windows: `C:\Program Files\IntelSWTools\Advisor 2019`

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- o If you are installing on a system with a non-English language version of Windows* OS, the name of the `Program Files` folder may be different. On Intel® 64 systems, the directory name is `Program Files (x86)` or the equivalent.
- Linux: `/opt/intel/advisor_2019`

In both cases, there is also a generic soft link to the most recently installed version.

Changing, Updating and Removing the Product

On Windows*, if you want to modify, repair, or remove the Intel® Advisor components, open the Control Panel and select the **Add or Remove Programs** applet (or **Programs and Features** in Microsoft Windows 7), select **Intel Advisor 2019** and click **Change/Remove** (or **Uninstall/Change** in Microsoft Windows 7). Follow the installation instructions. You may need the original installation files to complete this process. If you do not have the extracted files, you can use the original installer executable to complete this process as well.

On Linux*, to remove the product, execute the following commands as a root user or the same user who performed the installation:

1. `cd <installation_dir>`
2. `uninstall.sh`

Known Installation and Configuration Issues

On Windows*, please close Microsoft* Visual Studio* sessions before installing, modifying, or removing the Intel® Advisor. Not doing so will affect Visual Studio integration and may result in obscure error messages.

Setting Up the Command Line

Before using Intel® Advisor on the command line, you will need to set up the environment:

- Windows: `<installation_dir>\advixe-vars.bat`
- Linux: `source <installation_dir>/advixe-vars.sh`

> **NOTE:** To build the Intel® Advisor sample applications, you may need to first define the `ADVISOR_2019_DIR` environment variable. Running the `advixe-vars.sh` script will do this automatically.

6   Known Issues

This section is quite long. To skip to operating system specific limitations, use these links:
- [Windows* Specific Limitations](#)
- [Linux* Specific Limitations](#)

Common Limitations

SUITABILITY TOOL MAY NOT ACCURATELY MEASURE VERY SHORT LOOPS

The Suitability tool cannot accurately measure and analyze the behavior of loops with very small task times (on the order of sub-microseconds) if those tasks are annotated with the `TASK_BEGIN`/`TASK_END` annotations. If possible, use the `ITERATION_TASK` annotation instead.

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SUITABILITY REPORT COMBINES LOCK DATA

The Suitability Report combines all lock data into a single lock and may not have source line information for `LOCK_ACQUIRE` and `LOCK_RELEASE` annotations.

HUGE SOURCE FILES MAY NOT BE COMPLETELY PARSED FOR ANNOTATIONS

If your sources include huge source files that contain annotations, be aware that only the first 8 MB of each file will be parsed for annotations. If not all of your annotations are being parsed in such huge source files, consider breaking that source file into several source files each less than 8MB.

NON-RETURNING FUNCTIONS MAY CAUSE INCORRECT LOOP REPORTS

The Survey Report may incorrectly report loops if a function contains calls to a non-returning function such as the `exit()` function.

LOOPS IN FUNCTIONS WITHOUT DEBUG INFORMATION MAY NOT BE RECOGNIZED AS LOOPS

Loops within a function that does not contain debug information may not be reported as a loop in the Survey Report. For the suggested build settings, see the help topics under **Choosing and Building a Target > Build Settings for C/C++ Applications** or **Build Settings for Fortran Applications**. After you fix the build settings to specify debug information, rebuild the target and run Survey analysis again.

SURVEY MAY REPORT NO SIGNIFICANT HOTSPOTS

After analyzing the specified target executable, the Survey tool may report that no significant hotspot areas were detected. In this case, view the collected result using the Survey Report window. The suggested build settings are described in the help topics under **Choosing and Building a Target > Build Settings for C/C++ Applications** or **Build Settings for Fortran Applications**.

INTEL® ADVISOR MAY FAIL TO CORRELATE DATA WITH SOURCE CODE

If debug information correlating an instruction to source code is not available to an Intel® Advisor tool, the tool cannot correlate collected data with source code. In this case it will show an empty field, question mark, or broken icon. Source correlation may not be available for many different reasons, including:

- Omitting debug information options when building the target executable - see the help topics under Choosing and **Building a Target > Build Settings for C/C++ Applications** or **Build Settings for Fortran Applications**.
- A compiler error.
- The compiler not generating debug information for this specific source line or source file.
- The linker not copying the debug information into the debug information database.
- The debug information database not being found by the finalization step in the Intel® Advisor, because it was not moved along with the executable to the location where the Intel® Advisor is being run.
- When using the Intel® Advisor GUI, insufficient project properties were specified for the Binary/Symbol Search tab. See https://software.intel.com/en-us/advisor-user-guide-binary-symbol-search-tab .

Windows* Specific Limitations

ADVISOR MAY NOT MANUALLY INTEGRATE INTO MICROSOFT* VISUAL STUDIO* 2017

Intel® Advisor integrates into Microsoft Visual Studio 2017 only using the official Intel Advisor installation. Any other ways like `advixe-vsreg.exe` tool or manual launching `.vsix` package will not work.

ADVISOR MAY HANG IF GUI OR MICROSOFT* VISUAL STUDIO* IS CLOSED WHILE EXPANDING A SURVEY TREE

Do not close the Intel® Advisor GUI or Microsoft Visual Studio* software while expanding the Survey tree. Doing so may cause the product to crash or hang.

ADVISOR MAY REPORT INCORRECT DATA IF LOCAL CHARACTER SETS ARE USED

Intel® Advisor may present incorrect or incomplete information if local character sets are used. For general character set support, use Unicode.

WINDOWS SERVER* 2012 SYSTEMS MAY NOT CORRECTLY DISPLAY MICROSOFT* VISUAL STUDIO* 2012 HELP PAGES

On Windows Server 2012 systems, if you have problems viewing Microsoft Visual Studio* 2012 help pages, check the settings for Internet Explorer* in **Tools > Internet Options > Security**. To allow correct display of help, in the Internet zone enable **MIME Sniffing** and **Active scripting**.

WINDOWS SERVER* 2012 SYSTEMS MAY NOT CORRECTLY DISPLAY GETTING STARTED TUTORIALS IN INTERNET EXPLORER* 10

On Windows Server 2012 systems, if you find that you cannot display Getting Started Tutorials from within Internet Explorer 10, correcting a security setting for Microsoft Internet Explorer usually corrects the problem. From **Tools > Internet Options > Security** , add "about:internet" to the list of trusted sites. Optionally, you can remove "about:internet" from the list of trusted sites after you are finished viewing the documentation.

ADVISOR MAY INCORRECTLY DISPLAY "PROJECT IS OUT OF DATE"

Intel® Advisor may display a message that the "*Project is out of date*" before running the data collectors. You do not need to rebuild the project prior to running the collector if you know that the project is up-to-date.

MICROSOFT* VISUAL STUDIO* MAY DISPLAY A WARNING MESSAGE WHEN OPENING ADVISOR SAMPLES

When opening the Intel® Advisor samples, Microsoft Visual Studio* software will display a warning message related to Intel® Cilk Plus projects or list them as unsupported when the Intel® C++ Compiler is not installed. This message may be ignored. However, Intel® Cilk Plus projects will not compile without an Intel® C++ Compiler with Intel® Cilk Plus support, such as the Intel® Parallel Studio XE (or similar Intel® software suite).

ANTIVIRUS SOFTWARE MAY PREVENT ADVISOR FROM INSTRUMENTING CODE

Virus checking can sometimes interfere with our ability to instrument code. Currently there is no workaround, except turning off the virus checker.

Linux* Specific Limitations

TARGET APPLICATION OUTPUT MAY NOT DISPLAY WHEN BEING ANALYZED FROM THE ADVISOR GUI

When the Intel® Advisor GUI is launched from a Linux OS desktop GUI (such as the KDE* or GNOME* GUI) the output of the non-GUI target application being analyzed will not be displayed. To avoid this, launch the Intel® Advisor GUI from a command shell with the `advixe-gui` command instead of the desktop GUI, or redirect the non-GUI application output to the Intel® Advisor output window by choosing **File > Options > Application output destination > Application output window**.

ADVISOR HELP MAY NOT WORK IN SOME BROWSERS

If you encounter problems searching the Intel® Advisor help using a certain web browser, consider using a newer version of that browser or use a different web browser as your default browser.

ADVISOR MAY DETECT TIMER SOURCE INCORRECTLY ON SOME PROCESSORS

Intel® Advisor may detect which timer source to use incorrectly on extreme desktop SNB-E (e.g. Intel® Core i7-3960X) processors. In Survey and Suitability collections the following message may be displayed in the command line or Debug Window:

Warning: Cannot load data file `/tmp/linux/openmp_triad/r007hs/data.0/25448-25455.0.trace' (Data file is corrupted).

To work around the problem, collect results from the command line using "`-run-pass-thru`" option:
```
advixe-cl -collect survey -run-pass-thru=-timestamp=sys -- <application>
```

RUNNING ADVISOR GUI IN BACKGROUND MODE AND ANALYZING AN APPLICATION THAT TAKES CONSOLE INPUT MAY APPEAR TO CAUSE A HANG

Running Intel® Advisor in the linux console in background mode (`./advixe-gui &`) and profiling an application that uses input from the console (stdin) cause a product stop by the operating system that looks like a product hang. To avoid this problem, either run your application with input from a file specified in application arguments or do not use background mode.

HELP OR RECOMMENDATIONS HTML FILES MAY NOT WORK WITHOUT XDM-UTILS PACKAGE

Opening links to HTML files, such as help or recommendations, is not guaranteed if the `xdm-utils` package is not installed. Possible solutions are:

- Install the `xdm-utils` package.
- Use the default terminal program for KDE or Gnome desktop environments.

ADVISOR MAY NOT WORK UNDER SECURITY-ENHANCED LINUX* (SELINUX) SETTINGS

Security-enhanced Linux* settings (SELinux) are currently not supported by the Intel® Advisor and need to be either disabled or set to permissive for a successful tool suite installation. This product supports only "Permissive" mode. To run the product successfully you may either disable SELinux by

- setting the line "`SELINUX=disabled`" in your `/etc/sysconfig/selinux` file
- adding "`selinux=0`" kernel argument in `lilo.conf` or `grub.conf` files

or make a SELinux mode adjustment by

- setting the line "`SELINUX=permissive`" in your `/etc/sysconfig/selinux` file
- ask your system administrator to make a SELinux mode adjustment

You may need to reboot your system after changing the system parameters. More information about SELinux can be found at http://www.nsa.gov/research/selinux/index.shtml .

CONTENTS TAB OF ADVISOR DOCUMENTATION MAY APPEAR TRUNCATED IN CERTAIN BROWSERS

When using certain HTML browsers to view the Intel® Advisor documentation, if the Contents tab width appears truncated and hides some of the topic titles:

- Click the **Index** (or **Search**) button
- Click the **Contents** button

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7 Attributions

The license information for third party software that was used to develop Intel® Advisor can be found in `<install_dir>/documentation/en/third-party-programs.txt` .

For the avoidance of doubt, the Intel® Advisor is solely governed by the terms and conditions of the End User License Agreement for Intel® Software Development Product that accompanies the Intel® Advisor.

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