

Intel® Integrated Native Developer Experience 2015 Update 2(OS X* Host)

Release Notes and Installation Guide

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Introduction

Intel® Integrated Native Developer Experience 2015 Update 2 provides a suite of tools to write native C++ code that targets OS X*- and Android*-based devices on Intel® architecture and ARM* architecture.

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

To learn more about this product, see the [Related Documentation](#) section.

Acronyms and Terms

The following acronyms and terms are used in this document (arranged in alphabetic order):

Acronym/Term	Description
Intel® HAXM	Intel® Hardware Accelerated Execution Manager
Intel® INDE	Intel® Integrated Native Developer Experience
Intel® IPP	Intel® Integrated Performance Primitives
Intel® TBB	Intel® Threading Building Blocks
Intel® VT	Intel® Virtualization Technology

New in this Release

- Support for 14nm SoC code named Cherry Trail on Android* targets
- Support for OS X* targets on Intel® C++ Compiler, Intel® IPP and Intel® TBB
- Graphics Frame Analyzer for OpenGL*

Feature	Target Platform	Cherry Trail Support for Android* targets?
IDE Integration for Android*	Android* only	Yes

Feature	Target Platform	Cherry Trail Support for Android* targets?
Intel® IPP	Android* and OS X*	Yes
Intel® TBB	Android* and OS X*	Yes
Intel® C++ Compiler	Android* and OS X*	Yes
System Analyzer, Platform Analyzer	Android* only	No
Graphics Frame Analyzer for OpenGL*	Android* only	No
Media for Mobile	Android* and iOS*	Yes

The following sections detail what is new for each feature of INDE.

IDE Integration for Android*

- Updated Android Studio to 1.1.0
- Added support for Oracle Java Development Kit (JDK) Version 1.8

Intel® IPP

No new features.

Intel® TBB

- Changes (with respect to Intel TBB 4.3 Update 2):
 - Move constructor and assignment operator were added to unique_lock object
- Preview features:
 - Time overhead for memory pool destruction was reduced.
- Open-source contributions integrated:
 - Build error fix for iOS* by Raf Schietekat

Intel® C++ Compiler 15.0.2 for Android* and OS X* Targets

- OS X* 10.10 is supported
- Xcode* 6.0 and 6.1 are supported
- Intel® Advanced Vector Extensions 512 (Intel® AVX 512) instructions for IA-32 and Intel® 64 architectures supported
- New string conversion functions added to libistrconv library
- Options -xCOMMON-AVX512 and -axCOMMON-AVX512 added
- Option -auto-p32 supported on OS X* targets

- Using -auto-p32 and -auto-ilp32 options require use of -no-pie option on OS X* targets

Media for Mobile

No new features

System Analyzer

No new features

Platform Analyzer

No new features

Graphics Frame Analyzer for OpenGL* ES?

- **Integrated profiling and debugging**
You can now use the brand-new cross-platform Graphics Frame Analyzer for OpenGL* ES to analyze Android* workloads. This tool supports OpenGL ES* 1.0, 1.1, 2.0, 3.0/3.1 and can be run on Windows*, Ubuntu*, and OS X* host systems. Graphics Frame Analyzer for OpenGL* offers the capabilities for graphics profiling and debugging rendering issues by integrating the functionality of the Graphics Frame Debugger and the legacy Graphics Frame Analyzer. Note that the Graphics Frame Debugger is no longer available as a standalone tool.
- **Multiple tools for profiling**
You can now profile OpenGL ES 3.1 graphics applications in Graphics Frame Analyzer for OpenGL, System Analyzer, and Platform Analyzer.
- **Legacy Graphics Frame Analyzer**
The legacy Graphics Frame Analyzer is now renamed as Graphics Frame Analyzer for DirectX*. This tool no longer supports profiling of Android* applications and focuses exclusively on analyzing Windows* applications.

Fixed Issues

- If Android Studio* or Eclipse* Integration is chosen under IDE, you now have two options:
 - 1) Choose INDE to install the plug-ins into the existing IDE, in which case you provide the installation path of the IDE during the INDE installation.
 - 2) Let INDE install the IDE along with the plug-ins for you. You may choose to retain any pre-existing IDE installations.

Where to Find the Product

You can download this product from <https://software.intel.com/en-us/intel-inde> . Please see [Installation Notes](#) for detailed instructions.

Known Issues

- Users may see the following error when launching the Android Virtual Device Manager within Eclipse:

```
PANIC: Missing arch-specific emulator program:  
/Applications/Intel/INDE/IDEIntegration/ADT/sdk//tools/emulator-  
x86_64.
```

Work around:

1. Launch Android SDK Manager and update the “Android SDK Tools” to the latest version.
- Intel C++ Compiler for Android* not usable via command line option

Work around:

To use the command line:

1. First set environment variables using compilevars script file. For example, on IA-32 architecture:

```
./Applications/Intel/INDE/cc_android_15.0.2.022/bin/compilevars.  
sh -arch ia32-platform android
```

2. After this, specify `icc` command in command line:

```
$ icc -c hello-jni.c
```

Related Documentation

Refer to Intel® INDE’s suite-level [Getting Started Guide](#) that includes links to the documentation describing INDE features.

The Getting Started Guide is installed in this directory: `/Applications/Intel/INDE.`

Release Content

Intel® INDE includes the features listed in the table below. You can find Release notes for each of these features in the path or link provided.

Feature	Version	Release Notes Path
IDE Integration for Android*	1.4	https://software.intel.com/en-us/articles/release-notes-for-ide-integration-for-android-for-os-x-host-for-intel-inde
Media for Mobile	1.2.2675	https://software.intel.com/en-us/articles/intel-inde-media-for-mobile-release-notes-and-support

Feature	Version	Release Notes Path
Intel® TBB	4.3 Update 4 4.3 Update3 for OS X* targets	https://software.intel.com/en-us/articles/intel-threading-building-blocks-release-notes
Intel® IPP for all targets	8.2 Update 1	https://software.intel.com/en-us/articles/intel-ipp-82-library-release-notes
Intel® C++ Compiler for all targets	15.0 Update 2	https://software.intel.com/en-us/articles/intel-c-compiler-release-notes-for-intel-integrated-native-developer-experience-2015
System Analyzer	2015 R1	https://software.intel.com/en-us/articles/intel-gpa-release-notes
Platform Analyzer	2015 R1	https://software.intel.com/en-us/articles/intel-gpa-release-notes
Graphics Frame Analyzer for OpenGL*	2015 R1	https://software.intel.com/en-us/articles/intel-gpa-release-notes

Third Party Tools

Please refer to [IDE Integration Release Notes](#) for a list of third party products installed by Intel® INDE.

System Requirements

Intel® INDE requires the following in the host machine:

Hardware:

The memory requirements are based on the full installation of the product. Depending on the options you select during the installation, memory requirements might be slightly lesser. Please check [Release Content](#) to find the Release Notes for each feature that details the requirements for that feature.

- A 64-bit Intel® based Apple* Mac* system
- 4 GB RAM
- 14 GB free disk space for Ultimate Edition, 8 GB for Professional Edition and 7.5 GB for Starter Edition of the product.

Software:

- Java* JDK – Both 1.6 (64-bit) and 1.7 or 1.8 (64-bit)
- OS X* version 10.9 or 10.10

For detailed software requirements for any feature, refer to the Release Notes of that respective feature as noted in the [Release Content](#) section.

Supported Target Devices:

- Devices running Android* 4.3 (Jelly Bean) or Android* 4.4 (KitKat) or Android* 5 (Lollipop) on Intel® processors or ARM* devices

Installation Notes

The installation of the product requires a valid license file or serial number. If you are evaluating the product, you can also choose the option **Evaluate this product (no serial number required)** during installation. Ultimate Edition of the product is installed when you choose this option.

If you received your product by downloading it, extract the .tgz archives to find `m_INDE_<edition>_Installer_p_<version>.app` file and double click to begin the installation. Note that there are several different downloadable files available, each providing different combinations of features. Please refer the [download web page](#) to determine which file is appropriate for you.

You do not need to remove previous versions of Intel INDE 2015 before installing a newer version of the Intel INDE 2015 product.

Activation

A valid license is required for installation and use. If you are installing the product for the first time, use one of the following options for activating the license:

- Type in the product serial number (Internet connection is required)
- Specify the location of a license file or license server
- Use an evaluation license for 31 days

Frequently Asked Questions

- How do I install updates for the product?

This is done through Intel® Software Manager. For more info:

<https://software.intel.com/en-us/articles/what-is-intel-software-manager>

- How do I renew my license?

If you own Professional or Ultimate (only these have a license), [Intel® Software Manager](#) provides you “Licenses” tab where you can check support period and enter new Serial Number with extended support period.

- How do I know what edition of the product is installed?

Intel® Software Manager provides the info for Professional and Ultimate Editions. If there is no info displayed for Intel® INDE but you have the product installed, then it is Starter Edition.

Default Installation Folders

The default top-level installation folder for this product is:

```
/Applications/Intel/INDE/
```

Folder arrangement described below is created during INDE installation. Not all folders may be present in a given installation.

- **IDE Integration for Android***
 - **Eclipse* Environment:** <install_dir>/IDEIntegration
 - Docs
 - NDK
 - Ant
 - Android SDK
 - ADT (Eclipse is in ./ADT/eclipse/ directory)
 - **Android Studio* Environment :** <install_dir>/IDEIntegration
 - Docs
 - NDK
 - Android SDK
 - Android Studio.app
- **Media for Mobile:** <install_dir>/media_for_mobile
 - Android
 - Doc
 - libs
 - iOS
 - Doc
 - MediaForMobile.framework
- **Intel® TBB:** <install_dir>/TBB
 - bin
 - documentation
 - examples
 - include
 - lib
- **Intel® IPP:** <install_dir>/ipp_8.2.1.00X
 - Documentation
 - ipp

- o examples
 - o include
 - o lib
- **Intel® C++ Compiler for Android***: <install_dir>/cc_android_15.0.2.022
 - Eclipse_support
 - Documentation
 - Samples
 - Toolchains
 - Man
 - Bin
 - compiler
 - Pkg_bin
- **Graphics Frame Analyzer for OpenGL***: <install_dir>/FrameAnalyzerOGL
- **System Analyzer**: <install_dir>/SystemAnalyzer
- **Platform Analyzer**: <install_dir>/Platform Analyzer
- **OS X* Target Support**: <install_dir>/OSXtarget_2015.1.015
 - Bin
 - Compiler
 - Documentation
 - Ipp
 - Samples
 - TBB
 - Pkg_bin

Changing, Updating and Removing the Product

- How do I upgrade the product from Starter to Professional or Ultimate Edition?
 Obtain the license through appropriate channel. Please visit <https://software.intel.com/en-us/intel-inde/try-buy> for details. The installer package is different for different editions of the product, Download the right one and enter the serial number from license on the activation dialog.
- How do I uninstall the product?
 Go to /Applications/Intel/INDE/ and run "Uninstall". You can remove the whole suite only.
- How do I add/modify the features?
 Start the installer again and choose features which you need.

When installing an updated version of the product, you do not need to remove the older version first. Some features are installed side-by-side while the rest are installed in Upgrade mode where only the upgraded version of the feature exists.

Features for which multiple versions can co-exist:

- Intel® C++ Compiler for all supported targets
- Intel® IPP for all supported targets
- Intel® TBB for all supported targets.

Legal Information

https://software.intel.com/sites/default/files/managed/4d/59/EULA_INDE_Update2_OSX.pdf

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