

# Intel® System Studio 2016 System Requirements

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## 1 Introduction

This document provides the information on the **system requirements** for the **Intel® System Studio 2016** product and provides pointers to where you can find the system requirements specific to individual tool products.

Intel® System Studio targets development for Android\*, Embedded Linux\*, Yocto Project\*, Tizen\* IVI, and Wind River Linux\* deployment targets from Linux\* or Windows\* host.

## 2 Supported Host Operating Systems

One of the following Linux distributions (this is the list of distributions supported by all components; other distributions may or may not work and are not recommended - please refer to Technical Support if you have questions).

In most cases Intel® System Studio will install and work on a standard Linux\* OS distribution based on current Linux\* kernel versions without problems, even if they are not listed below. You will however receive a warning during installation for Linux\* distributions that are not listed

- Red Hat Enterprise\* Linux\* 6, 7
- Ubuntu\* 14.04 LTS, 15.04 LTS, 16.04LTS
- Fedora\* 20, 23, 24
- Wind River\* Linux\* 5, 6, 8(Native support)
- openSUSE\* 12.1
- SUSE LINUX Enterprise Server\* 11 SP2, 12, 12(SP1)
- CentOS\* 7.1

Additionally Intel® System Studio 2014 supports

- Microsoft Windows\* 7, 8.x, 10 (64 bit only)

Individual Intel® System Studio 2014 components may support additional distributions. See the individual component's installation guide and release notes after you unpacked and ran the installer for the tool suite distribution for details.

```
>tar -zxvf system_studio_201x.x.xxx.tgz
```

### Sudo or Root Access Right Requirements:

- Integration of the Intel® C++ Compiler into a Yocto Project\* Application Development Toolkit installed to /opt/poky/ requires the launch of the tool suite installation script install.sh as root or sudo user.

- Installation of the hardware drivers for the Intel® ITP-XDP3 probe to be used with the Intel® JTAG Debugger requires the launch of the tool suite installation script `install.sh` as root or sudo user.

### 3 Host Space Requirement by Component

Component	Minimum RAM	Recommended RAM	Disk Space
Intel® System Studio	2 GB	4 GB	7 GB
Intel® C++ Compiler	1 GB	2 GB	2.5 GB
Intel® Inspector	2 GB	4 GB	350 MB
Intel® Integrated Performance Primitives (Intel® IPP)	1 GB	4 GB	1-2 GB
Intel® Math Kernel Library (Intel® MKL)	1GB	4 GB	2.3 GB
Intel® System Debugger	1 GB	2 GB	300 MB
Intel® VTune™ Amplifier for Systems	2 GB	4 GB	650 MB
GDB	1 GB	2 GB	200 MB

### 4 Prerequisites by Component

#### Intel® Integrated Performance Primitives (Intel® IPP) Details

##### Intel® Integrated Performance Primitives (Intel® IPP) IA-32 Hardware Requirements

- 1800MB of free hard disk space, plus an additional 400MB during installation for download and temporary files.

##### Intel® Integrated Performance Primitives (Intel® IPP) for Intel® 64 Hardware Requirements:

- 1900MB of free hard disk space, plus an additional 700MB during installation for download and temporary files.

#### Intel® C++ Compiler

- Cross-build for Wind River Linux\* target currently requires an existing Wind River\* Linux 6, 7, or 8 (Native support) installation that the compiler can integrate into.

## 5 Target Software Requirements

### Linux\* target:

- Yocto Project\* 1.4, 1.5, 1.6, 1.7, 1.8, 2.0 based environment
- CE Linux\* PR35 based environment
- Tizen\* IVI 3.x
- Wind River\* Linux\* 6, 7, 8 based environment
- Android\* 5.0, 5.1, 6.0

### Windows\* target :

- Microsoft Windows\* 7, 8.x, 10 (PC & Embedded)

**Note:** The level of target OS support by a specific Intel® System Studio component may vary.

## 6 Target Prerequisites and Resource Requirements

### Target Space Requirement by Component

Component	Minimum RAM	Dependencies	Disk Space
Intel® C++ Compiler	Application Dependent	<ul style="list-style-type: none"> <li>○ Linux kernel 1.26.18 or newer</li> <li>○ glibs-2.5 or compatible</li> <li>○ libgcc-4.1.2 or compatible</li> <li>○ libstdc++-3.4.7 or compatible</li> </ul>	13Mb (IA-32) 15Mb (Intel® 64)
Intel® VTune™ Amplifier CLI(Command-Line Interface)	4 GB	Specific kernel configuration reqs. Details below.	200 MB
Intel® VTune™ Amplifier SEP(Sampling Enabling Product)	(# logical cores+2) Mb	Specific kernel configuration reqs. Details below.	8 MB
WakeUp Watch	(# logical cores+2) Mb	Specific kernel configuration reqs. Details below. See WuWatch Documentation	8 MB
Intel® Inspector CLI	2 GB	4 GB	350 MB
SoC Watch	(# logical cores+2) Mb	Specific kernel configuration reqs. Details below. See SoCWatch Documentation	8 MB

GDB Server	Negligible	None	1.5 MB
Xdbntf.ko	<1 MB	Kernel Build Environment	<1 Mb

## Intel® VTune™ Amplifier target OS kernel

For Intel® VTune™ Amplifier performance analysis and Intel® Energy Profiler there are minimum kernel configuration requirements. The settings below are required for different analysis features.

- For event-based sampling (EBS) sep3\_x.ko and pax.ko require the following settings:  
CONFIG\_PROFILING=y  
CONFIG\_OPROFILE=m (or CONFIG\_OPROFILE=y)  
CONFIG\_HAVE\_OPROFILE=y
- For EBS with callstack information vtsspp.ko additionally needs the following settings:  
CONFIG\_MODULES=y  
CONFIG\_SMP=y  
CONFIG\_MODULE\_UNLOAD=y  
CONFIG\_KPROBES=y  
CONFIG\_TRACEPOINTS=y (optional but recommended)
- For power analysis, required by apwr3\_x.ko  
CONFIG\_MODULES=y  
CONFIG\_MODULE\_UNLOAD=y  
CONFIG\_TRACEPOINTS=y  
CONFIG\_FRAME\_POINTER=y  
CONFIG\_COMPAT=y  
CONFIG\_TIMER\_STATS=y  
CONFIG\_X86\_ACPI\_CPUFREQ=m (or CONFIG\_X86\_ACPI\_CPUFREQ=y)  
CONFIG\_INTEL\_IDLE=y

## Intel® VTune™ Amplifier Feature vs. Resource Matrix

	Event based sampling (EBS) analysis	EBS analysis with stacks	Algorithmic analysis (PIN-based)	Intel Energy Profiler	Remote collection from host	Result view on target	Requirements:
<b>SEP</b> "VTune Amplifier hardware event-based sampling collector for performance analysis"	X						~8 MB disk space (Number of logical cores +2) Mb RAM
<b>amplxe-cl -target</b> "VTune Amplifier collector for power and performance analysis on Embedded Linux systems"	X	X	X	X	X		~25 MB disk space ~64 Mb RAM
<b>amplxe-cl</b> "VTune Amplifier command line interface for text-based power and performance analysis"	X	X	X	X	X	X	~200MB disk space >= 4Gb RAM

## 7 Hardware Requirements

- IA32 or Intel® 64 architecture based host computer
- Development platform based on the Intel® Atom™ processor Z5xx, N4xx, N5xx, D5xx, E6xx, N2xxx, D2xxx, E3xxx, Z2xxx, Z3xxx, C2xxx, or Intel® Atom™ processor CE4xxx, CE53xx and the Intel® Puma™ 6 Media Gateway
- Intel® Pentium® Processor N4200, Intel® Celeron® Processor N3350, Intel® Atom™ Processors x7-E3950, x5-3940, x3-3930 (Broxton Apollo Lake)
- Intel® Edison development platform
- Alternatively development platform based on 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> or 6<sup>th</sup> generation Intel® Core™ processor.
- Intel® Xeon® processors based on 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> generation Intel® Core™ architecture.
- 5th generation Intel® Core™ M processor

## 8 Development Environments supported

### Eclipse\* Development Environment (Linux\* target) :

If you decide to use an existing Eclipse\* on the system for integration of System Studio components, point the installer to the installed Eclipse\* directory. Usually this would be /opt/eclipse/. The prerequisites for successful Eclipse integration are:

- Eclipse\* 4.4 (Luna) – Eclipse\* 4.6 (Neon)
- Java\* Runtime Environment (JRE\*) version 7.0 (also called 1.7) or later

### Microsoft\* Development Environments(Windows\* target) :

The prerequisite for successful Microsoft\* Visual Studio\* integration and use of use the Microsoft Visual Studio\* development environment or command-line tools to build IA-32 or Intel® 64 architecture applications, is the presence of one of: •

- Microsoft Visual Studio\* 2015 •
- Microsoft Visual Studio\* 2013 Professional Edition (or higher edition) with C++ component installed •
- Microsoft Visual Studio\* 2012 Professional Edition (or higher edition) with C++ component installed

To use command-line tools only to build IA-32 architecture applications, one of: •

- Microsoft Visual C++ Express 2013 for Windows Desktop\* •
- Microsoft Visual C++ Express 2012 for Windows Desktop\*

To use command-line tools only to build Intel® 64 architecture applications, one of: •

- Microsoft Visual C++ Express 2013 for Windows Desktop\* •

- Microsoft Visual C++ Express 2012 for Windows Desktop\* •
- Microsoft Windows\* Software Development Kit for Windows\* 8 or 8.1

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