

Intel® System Studio 2019 Initial Release System Requirements

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1 Introduction

This document provides the information on the **system requirements** for the **Intel® System Studio 2019 Initial Release** product and provides pointers to where you can find the system requirements specific to individual tool products.

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

For full product information for the previous release, as well as links to licenses (90-days), please refer to Intel® System Studio product webpage <https://software.intel.com/intel-system-studio>.

Individual Intel® System Studio components may have a broader range of supported features/targets than the suite level support covers. See the [system requirements](#) of the individual components for detailed information

2 Supported Host Operating Systems

Below is the list of distributions supported by most components. Intel System Studio supports Intel® 64 Host architectures only.

Linux* Host:

- Ubuntu* 18.04 LTS
- Fedora* 27
- Red Hat Enterprise* Linux* 7
- Wind River Linux LTS* 17
- Ubuntu* 16.04 LTS
- SUSE LINUX Enterprise Server* 15 (Intel® Inspector and Intel® Advisor)
- Fedora* 28
- Wind River* Linux* 9
- Fedora* 26 (limited tool support)
- CentOS* 7.4
- Red Hat Enterprise* Linux* 6
- SUSE LINUX Enterprise Server* 12
- Ubuntu* 14.04 LTS (limited tool support)

Windows* Host:

- Microsoft Windows* 7, 8.x, 10

macOS* Host:

- macOS* 10.12, 10.13

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* OS distributions that are not listed.

3 Supported Target Operating Systems

Linux target:

- Wind River Linux LTS* 17
- Yocto project* 2.5 based environment
- FreeBSD 10.2, 11.1 (Intel® VTune™ Amplifier only)
- Ubuntu* 16.04,18.04 LTS
- Wind River* VxWorks* 7 based environment
- Yocto project* 2.4 based environment
- Wind River* Linux* 9 based environment
- CentOS* 7.4
- Wind River* Titanium Server
- OpenWrt* Project
- QNX* Neutrino* RTOS
- Pulsar*
- One Device Linux

Windows target:

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

Android target :

- Android* N

4 Supported Target Hardware Platforms

- 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 Atom® Processors X Series Cxxx, Exxx, Zxxx
- Development platform based on a 2nd, 3rd, 4th, 5th, 6th, 7th or 8th generation Intel® Core™ processor
- Intel® Xeon® processors based on 2nd, 3rd 4th, 5th , 6th or 7th generation
- Intel® Xeon® Scalable processors series

5 Space Requirement by Component

Component	Minimum RAM	Recommended RAM	Disk Space
Intel® C/C++ Compiler	Host 1 GB	Host 2 GB	Host 4 GB for all features Target – 13 MB(IA-32)/15 MB(IA-64)
GNU* GDB	1 GB	2 GB	200 MB
Intel® Inspector	2 GB	4 GB	350 MB
Intel® Advisor	2 GB	4 GB	650 MB
Intel® Integrated Performance Primitives (Intel® IPP)	1 GB	4 GB	2-4 GB
Intel® Math Kernel Library (Intel® MKL)	1GB	4 GB	2.3 GB
Intel® System Debugger	1 GB	2 GB	2 GB
Intel® VTune™ Amplifier	2 GB	4 GB	650 MB
OpenCL™ Tools	1 GB	2 GB	1 GB
Docker* build workflow	4 GB		20 GB for Docker images and containers

6 Prerequisites by Component

Intel® System Studio 2019 Initial Release might also require installation of webkitgtk for using Eclipse*:

- Linux* host -
 - RedHat/Fedora: dnf install webkitgtk
 - Ubuntu/Debian : apt-get install libwebkitgtk-3.0.0

Intel® C/C++ Compiler

- Linux* target -
 - Linux Developer tools component installed, including gcc, g++ and related tools
 - gcc versions 4.3 - 6.3 supported
 - binutils versions 2.20-2.26 supported
 - Development for a 32-bit target on a 64-bit host may require optional library components (ia32-libs, lib32gcc1, lib32stdc++6, libc6-dev-i386, gcc-multilib, g++-multilib) to be installed from your Linux distribution.

Docker* based application workflow

- Using Intel® System Studio to target Ubuntu Desktop with the free "Community Edition" (CE) version of Docker* requires Docker version 1.13.0 (Jan 2017 release) or later. We recommend that you install the latest version of Docker on your development system to ensure expected functionality.
- For details see the [Intel® System Studio Docker Install](#).

Yocto Project* Compatible Application and Platform Development

- The table below provides a list of supported hosts on which Wind River Linux LTS or Yocto Project can be installed.

Wind River Linux* LTS 17	Wind River Linux* LTS 18	Yocto Project 2.6
<ul style="list-style-type: none">○ Red Hat Enterprise Linux* Workstation 7.2○ Red Hat Enterprise Linux* Workstation 7.3○ CentOS 7.2○ Fedora 25○ Fedora 26○ openSUSE Leap 42.3	<ul style="list-style-type: none">○ SLED-15○ Fedora27○ Fedora28○ CentOS-7.5○ RHEL-7.5○ OpenSUSE-42.3○ OpenSUSE-Leap-15○ Ubuntu-16.04	See Supported Linux Distributions for Yocto

<ul style="list-style-type: none"> ○ Novell SUSE Linux* Enterprise Desktop 12 SP3 ○ Ubuntu* Desktop 16.04 LTS 	<ul style="list-style-type: none"> ○ Ubuntu-18.04 	
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- Note: Ubuntu Desktop 18.04 LTS is not supported by Wind River Linux LTS 17 at this time, as it was released after Wind River Linux LTS 17. Please contact Wind River Support to see if this host will be supported prior to Wind River Linux LTS 18 via an RCPL update.

Intel® VTune™ Amplifier

- Linux* target
 - Linux* Kernel version has to be 2.6.32 or higher for Intel® VTune™ Amplifier power and performance analysis.
 - [Kernel Configuration](#)

Intel® System Debugger

- Linux* host -
 - Install fxload package for all types of target communication
 - Ubuntu*: sudo apt-get install fxload
 - Fedora*: sudo yum install fxload
- Windows* host -
 - Microsoft .NET Framework 4 (dotNetFx40_Full_x86_x64.exe) Microsoft .NET Framework 3.5 SP1 runtime (pre-installed by default on Microsoft* Windows* 7)
 - Download Microsoft .NET Framework 4 web installer from Microsoft.com.
 - Run dotNetFx40_Full_x86_x64.exe

7 Development environments supported

Eclipse* IDE

An Intel flavor of the Eclipse* IDE is available for Intel® System Studio 2018. Check out the [What's new](#) page for more details

Microsoft Visual Studio* integration

To use the Microsoft Visual Studio development environment or command-line tools to build IA-32 or Intel® 64 architecture applications, one of:

- Microsoft Visual Studio 2017* Professional Edition (or higher edition) with 'Desktop development with C++' component installed
- Microsoft Visual Studio 2015* Professional Edition (or higher edition) with 'Common Tools for Visual C++ 2015' component installed
- Microsoft Visual Studio Community 2015* with 'Common Tools for Visual C++ 2015' component installed
- Microsoft Visual Studio 2013* Professional Edition (or higher edition) with C++ component installed
- Microsoft Visual Studio Community 2013* with C++ component installed

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

- Microsoft Visual C++ Express 2015 for Windows Desktop*
- Microsoft Visual C++ Express 2013 for Windows Desktop*

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

- Microsoft Visual C++ Express 2015 for Windows Desktop*
- Microsoft Visual C++ Express 2013 for Windows Desktop*

8 Component System Requirements

Component	System Requirement
GNU* GDB	Windows host Linux host
Intel® C/C++ Compiler	Windows host Linux host Windows target
Intel® Data Analytics Acceleration Library (Intel® DAAL)	All hosts
Intel® Integrated Performance Primitives (Intel® IPP)	All hosts
Intel® Math Kernel Library (Intel® MKL)	All hosts
Intel® Threading Building Blocks (Intel® TBB)	All hosts
Intel® Inspector	All hosts
Intel® Advisor	All hosts
Intel® SDK for OpenCL™ applications	All hosts

Docker* Based Application Workflow	Windows host Linux host MacOS host
Intel® SoC Watch (Energy Analysis)	Windows target Linux target Android target
Intel® VTune™ Amplifier & Performance Snapshots	All hosts(hardware requirements) All hosts(software requirements)
Intel® System Debugger (System Debug, System trace, Extensions for WinDbg*)	Windows host Linux host
MRAA IO Communication Layer	MRAA
UPM Sensor and Actuator Library	UPM

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