

Downloading and Installing the Intel® Simics® Simulator

This document describes how to download and install the preview of the public release of the Intel® Simics®, from the Intel Download Center, and on a Linux host.

Download

Download both the following files to your local host:

- **intel-simics-package-manager-1.0.0-linux64.tar.gz**
- **simics-6-packages-2021-16-linux64.ispm**

Installation (Linux host)

Once the file download has completed:

1. Install the Intel® Simics® Package Manager (ISPM). Unpack the tar file **intel-simics-package-manager-1.0.0-linux64.tar.gz** to a suitable location.
2. Start the ISPM by running the **ispm-gui** application from inside the unpacked directory.
3. If this is the first time you run the ISPM, it will ask you for the **Simics installation location** on your local machine.
4. Go to **Platforms > Install from Repository** (the ISPM should start with this view open by default).
5. Click on **Browse for Bundle**.
6. Locate the **simics-6-packages-2021-16-linux64.ispm** file that you downloaded and select it.
7. Click **Finish**. This will install the Simics software and create a default Simics project in a default location. If you want to see the details of the installation, click the **arrow menu** button next to the **Finish** button to switch to advanced mode.

Getting Started

With your project setup, it is time to run a Simics simulation! You should be in the **Project Manager** view at this point, with a newly created Simics simulation project.

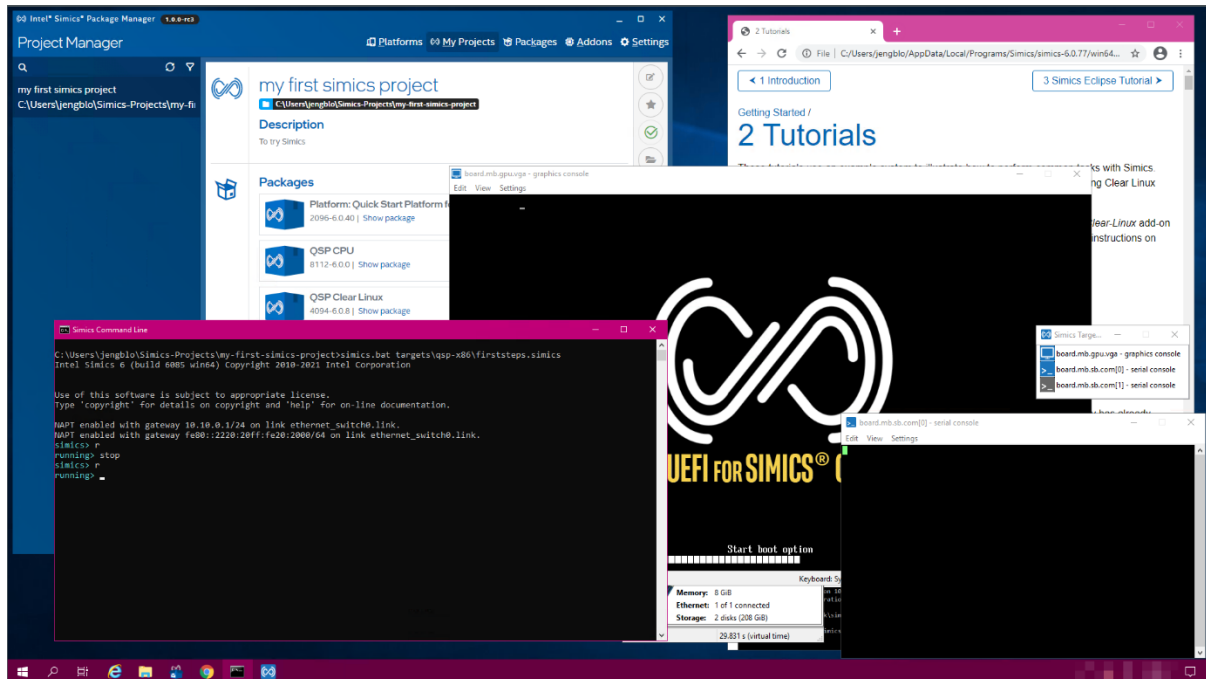
1. To quickly see a Simics virtual platform in action, click on the **Launch Demo** button in the project view. This will start a Simics simulation, opening several windows. The Simics command line will appear in a shell window. Follow the instructions that are printed on the command line.
2. To go through a tutorial on how to use the Simics simulator, go back to the ISPM and the **Project Manager** view.
3. In the buttons on the right, click the **>_ (Open in Terminal)** icon to open a shell in your project directory. This will be used to run through the steps in the tutorial.
4. In the buttons on the right, click **Book (Open documentation)**.
5. Go to the chapter titled **Getting Started** in the documentation to go through the Simics tutorials. This will show you how to run Simics simulations, debug target software, connect Simics to a real world network, and use instrumentation to inspect the target system.

Enabling VMP for better performance

When simulating Intel Architecture targets on an Intel host, the processor models can use Intel® Virtualization Technology for Intel® 64 and IA-32 architectures (Intel® VT-x) to execute target instructions directly on the host. This technology is known as VMP. If an Intel target is being simulated and VMP is not enabled, the Simics simulator will print a note on startup indicating that performance could be improved by enabling VMP.

To enable VMP on a Linux host:

1. Start a terminal in your project from the **ISPM Project Manager**, as described above.
2. Issue the command: **bin/vmp-kernel-install** (the script will prompt you for **sudo** privilege when needed).



The screenshot above shows Simics running and the Getting Started guide. In the background on the left you can see the Intel Simics Package Manager