



## Introduction

DSIM is a simulation software specially designed for the analysis and design of large power converter systems. This document describes how to use DSIM and issues related to installation and troubleshooting.

## Simulating a Circuit in DSIM

To simulate the sample circuit "buck converter.dsimsch":

1. Launch DSIM. Select **File >> Open** and load the file from the sub-folder "examples\DSIM\dc-dc".
2. Choose **Simulate >> Run DSIM Simulation** to start the simulation.
3. After the simulation is complete, the waveform processing program SIMVIEW will appear. In SIMVIEW, select the curves available for display.

## Comparing Different DSIM Versions

DSIM has three versions: Lite, Professional, and Enterprise. Below is a comparison of major differences between these versions.

Note that Table 1 is not an exhaustive list of all the differences. Certain limitations and restrictions may not be listed here, and the ones in the software take the precedence.

**Table 1: Comparison of DSIM Lite, Professional, and Enterprise versions**

Features	Lite	Professional	Enterprise
Cost	\$	\$\$	\$\$\$
Limit on the number of switches	15	50	No Limit
C blocks	×	√	√
Script functions	√*	√	√

√: Feature is available.

√\*: Feature is available, with restrictions

×: Feature is not available.

## Running the HASP Network Version

This section is for those who use the DSIM hasp network version, and need to customize the hasp License Manager.

Ensure that Sentinel Hasp driver is installed on the Server and all Client computers. Download the hasp driver and license manager from this link:

<https://www.powersimtech.com/download/HASPUserSetup.zip>

## Monitoring the Login

To monitor the Hasp License Manager and find out who is using the license at any moment, open a web browser and go to the link:

<http://localhost:1947>

Running the Monitoring program is not required for the License Manager to function properly.

### Limiting the Access to the Software and Accessing the Software Remotely

To limit the access of the software so that only client computers with authorization can connect to it, open a web browser in the Server computer (Computer with the Hasp Key). Go to the link:

[http://localhost:1947/int/\\_config\\_from.html](http://localhost:1947/int/_config_from.html)

For information on how to configure Access from remote clients, refer to the page:

[http://localhost:1947/int/\\_ACC\\_help\\_config\\_remote\\_clients.html](http://localhost:1947/int/_ACC_help_config_remote_clients.html)

### Configuring the Access to the License Manager

Normally, you will be able to run the DSIM software from a computer on the network with no changes to the default settings. However, under certain situations for example when the client computer is not in the same local area network as the server computer, you may need to change the settings on the client computer for DSIM to log on to the License Manager and find the key.

To change the settings, locate the file “NetHaspTool.exe” in the DSIM folder and run it. Set or update the IP address of the machine that runs the License Manager. If the IP address is not static, enter the machine hostname instead. Hasp network key uses TCP/UDP Port #1947. Test the connection. If connection is successful, the new setting is automatically saved. Another way to set the IP address of the server is from the web page:

[http://localhost:1947/int/\\_config\\_to.html](http://localhost:1947/int/_config_to.html)

### **Troubleshooting**

The following is a list of problems that one may encounter when installing and running DSIM, and possible solutions.

#### Problem:

There is a problem in running DSIM softkey version. It used to work, but when the computer is connected to a different network, it does not work.

**Error message:** *Error: Computer ID is not registered. Please contact Powersim to register the ID.*

#### Possible cause and the solution:

**Cause:** The DSIM softkey version checks the MAC address of the computer against the registered MAC address. If you are using a removable network adaptor or running VPN, the computer MAC address can change and this problem can occur.

**Solution:** Make sure that you are not running VPN or using a removable network adaptor. Then run the program “MAC.exe” from the DSIM folder, and send to Powersim the MAC address of a network card that is always present on the computer. Powersim will generate a new license file for you based on that MAC address.

#### Problem:

The Hasp network key cannot be found during the DSIM installation.

**Error message:** Hasp network key was not detected.

#### Possible causes and the solutions:

**Cause:** Hasp network key is not connected or Hasp driver was not installed on the server.



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**Solution:** Make sure that Hasp network key is connected and Hasp driver: <https://www.powersimtech.com/download/HASPUserSetup.zip> is installed on server.

**Cause:** The Windows firewall is preventing the setup program from communicating with the License Manager.

**Solution:** In Windows, go to Control Panel -> Security Center -> Windows firewall, and temporarily turn off the Windows firewall. This should help solve the problem.

After the installation and after the Windows firewall is turned on again, if there is a problem running either DSIM or SIMVIEW, go to the Windows firewall settings. Under Exceptions, click on Add Program to add DSIM to the firewall exception, and click on Add Port to add Port 1947 with the following settings:

Name: DSIM  
Port number: 1947  
UDP/TCP

### Problem:

Cannot start DSIM or SIMVIEW

**Error message:** Error: No Hasp key with the correct ID found!

### Possible causes and the solutions:

**Cause:** The Hasp key is not connected to the computer.

**Solution:** Connect the Hasp key to the computer.

**Cause:** The Hasp driver is not properly installed.

**Solution:** Run "haspUserSetup.exe" in the DSIM directory to install the Hasp driver. The installation needs administrative privilege. Make sure that you have the administrative privilege on the computer if you perform the installation, or you should ask your system administrator to perform the installation.

**Cause:** You are using the DSIM network version. The Hasp key is connected and the Hasp driver is installed, but the Hasp license manager server is not running.

**Solution:** Ask your system administrator to run the Hasp license manager.

**Cause:** You are using the DSIM network version. The Hasp key is connected, the Hasp driver is installed. But under certain network settings and configurations, DSIM cannot find the key over the network.

**Solution:** Set the Server's IP address or machine name. Refer to the section "Configuring the Access to the License Manager" for more details.

Also, if you are running DSIM from a network drive, copy the entire DSIM folder from the network driver to the local drive, and run DSIM from the local drive.

### Problem:

Cannot start DSIM or SIMVIEW

**Error message:** Error: Invalid Hasp key version!



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### Possible cause and the solution:

**Cause:** You were trying to run a newer version of DSIM with an older version of the Hasp key. For example, if your Hasp key is for Version 2020a and if you try to run a version of DSIM which is higher than 2020a, you will get this error message.

**Solution:** Make sure that you run the version of DSIM that matches the Hasp key.