

Introduction

This application note complements the ispLEVER® 7.1 Installation Notice (Windows XP / Windows 2000 / Windows Vista (32-bit) or Linux) and describes how to set up a floating license server for Active-HDL Lattice Edition (LE) on a Windows or Linux workstation. Active-HDL LE for Windows may be licensed to run node-locked or floating using Windows, Linux, or UNIX license servers. The license server hardware and operating system are independent of the Active-HDL LE clients and it is a common practice, for example, to use a Linux or UNIX license server with Windows clients.

The following platforms support Active-HDL LE license daemons for Windows and Linux (Source: <http://support.aldec.com>):

- Windows: 2000 / XP / Vista (32-bit) / Windows 7
- Linux: Red Hat Enterprise v3 (32-bit/64-bit)
- UNIX Solaris 8, 9, 10

See the procedures below for floating license setup under Windows or Linux.

UNIX Floating License Setup

The procedure to license Active-HDL LE on a UNIX workstation is covered by the “ispLEVER 7.1 Installation Notice (UNIX).”

Node Locked License Setup

The node-locked version of Active-HDL LE uses a 12-character hex-format NIC/MAC address for licensing. For more information on node-locked license setup, see the “ispLEVER 7.1 Installation Notice, Windows XP / Windows 2000 / Windows Vista (32-bit).”

Installing a USB HASP Keylock

In Windows or Linux floating license environments, the Aldec Active-HDL Lattice Edition (LE) simulator is licensed and run using a USB HASP Keylock with FLEXid. USB HASP keylocks are labeled with a FLEXid number, in the format FLEXid=9-xxxxxxx where x is a hexadecimal number. The keylock itself is usually green, as shown in Figure 1.

Figure 1. Aladdin USB HASP Keylock with FLEXid



USB HASP Keylock Drivers

Driver files can be obtained in any of the following locations:

- <isptools>\active-hdl\drivers\HASP subfolder of the Active-HDL LE installation directory
- Lattice Semiconductor licensing page at: <http://www.latticesemi.com/licensing/index.cfm>
- Aladdin Knowledge System website at: <http://www.aladdin.com/support/hasp/enduser.asp>

To install a FLEXid USB Keylock on a Windows workstation:

1. Obtain a USB FLEXid keylock from the Lattice license administrator.
2. Install the driver files for the USB FLEXid USB keylock onto the PC that will run the license server. The pre-compiled drivers are included in the file: HDD_Windows.zip

3. From the license server PC, run the following command:

```
.\HASP\hasp_driver_install.bat
```

Note: This is done automatically if you installed ispLEVER/PRO onto the license server PC and selected 'Floating License via USB Key' during installation.

4. Plug in the USB FLEXid keylock to the license server PC.

To install a FLEXid USB Keylock on a Linux workstation:

1. Obtain a USB FLEXid keylock from the Lattice license administrator.
2. Install the driver files for the USB FLEXid USB keylock onto the PC that will run the license server. The kernel independent precompiled drivers are included in the file: HDD_RPM_RedHat_i386.tar.gz
3. Open a terminal shell and install the driver files for the keylock using the following commands:
su # becomes the root.
rpm -e aksusbd-redhat # removes older version if it exists.
rpm -i aksusbd-redhat-1.8.1-3.i386.rpm # installs the package.
4. Plug in the USB FLEXid keylock onto the server workstation.
5. Copy the akasusbd executable file into the same directory containing the install scripts.
6. Log in as root.
7. Execute the dinst script.

Floating License Setup (Windows)

The instructions below will help you set up a Windows license server for Active-HDL LE.

To set up the Windows floating license server:

1. Download the Aldec License Daemon Package from the Lattice website at:
<http://www.latticesemi.com/licensing/index.cfm>
or the Aldec website at:
<http://support.aldec.com/KnowledgeBase/Article.aspx?aid=000399>
2. Unpack the ZIP archive to a directory where you want to install the server. The package contains the following files:
 - ALDEC - Aldec's license daemon
 - lmgrd - License manager daemon
 - Imutil - FLEXIm utilities program
 - LicensingEndUserGuide.pdf - Detailed document on setting up the license server; provided by Macrovision Software (www.macrovision.com).
3. Obtain the Active-HDL LE license file (aldec_license.dat) from the Lattice license administrator.
4. Copy aldec_license.dat to the directory where you unpacked the server.
5. Modify the SERVER line of aldec_license.dat to reflect the nodename of the workstation.
SERVER nodename FLEXID=9-xxxxxxx 27000
SERVER myservername FLEXID=9-xxxxxxx 27000
6. Modify the VENDOR line of aldec_license.dat to specify the vendor_daemon_path to the Aldec license daemon (ALDEC.EXE) field.
VENDOR ALDEC path_to_aldec
VENDOR ALDEC c:\server_installation_dir\aldec.exe
7. Start the server, run:
lmgrd -c aldec_license.dat
Note: Two separate license manager (lmgrd.exe) processes will be running. One for ispLEVER/PRO and one for Active-HDL.
8. Start Active-HDL LE. The Active-HDL 7.x License dialog appears. Press the **Run license information** button. The "Diagnose License" dialog appears.
9. Confirm the Install Dir for Active-HDL LE is accurate. Click the **Next** button. The Diagnose (License File) dialog appears.
10. Specify the location of the license server using the syntax:
<TCP-port>@host_computer_name (27000@myservername)
Click the **Refresh** button. Click the **Next >** button.
11. Click the **Finish** button.
12. Restart Active-HDL LE.

Floating License Setup (Linux)

The instructions below will help you set up a Linux license server for Active-HDL LE.

To set up a Linux floating license server:

1. Download the Aldec License Daemon Package. This may be found on the Lattice website at:

<http://www.latticesemi.com/licensing/index.cfm>

or on the Aldec website at:

ftp://reguser:reguser@ftp.aldec.com/daemons/11.4/aldec_linux_re3_32bit_floating_license.tar.gz

2. Create a directory where you wish to install the license server and copy the `aldec_<platform>_floating_license.tar.gz` package to this directory.

3. Unpack the package using the following command:

```
gzip -cd aldec_platform_floating_license.tar.gz | tar xf -
```

The package contains the following files:

- ALDEC - Aldec's license daemon
 - lmgrd - License manager daemon
 - lmutil - FLEXlm utilities program
 - LicensingEndUserGuide.pdf - Detailed document on setting up the license server; provided by Macrovision Software (www.macrovision.com).
4. Obtain the Active-HDL LE license file (`aldec_license.dat`) from the Lattice license administrator.
 5. Copy `aldec_license.dat` to the directory where you unpacked the server.
 6. Start the server, run:

```
lmgrd -c aldec_license.dat
```

Notes:

- For security reasons the license server should not run as the user root.
- Clients on the network can use the network license only when the server daemon is running.
- To start the license server automatically at system start up, refer to the “Starting the License Server Manager on UNIX Platforms” section of the `LicensingEndUserGuide.pdf` manual installed with other license server files.

Specifying the Port for the License Server (Optional)

By default, the license server uses the port 27009. If you want to bind the license server to a specific port, you can specify the port number in the `aldec_license.dat` file. This may be convenient if several license servers run on the same machine.

To edit the `aldec_license.dat` file:

1. Open the `aldec_license.dat` file in your favorite editor and locate the line that says:

```
SERVER <server_name> <host_id> <port_no>
```
2. Replace the port number at the end of the line.
3. Restart the license server.

Troubleshooting

Keylock Driver Install

To verify the FLEXid USB Keylock driver installation on Windows, invoke the `lmtools.exe`, located in the `\bin` subfolder of your Active-HDL installation folder. Under the “System Settings” tab, the FLEXID field should display the FLEXid of the dongle.

To verify the driver installation on Linux, invoke the `lmutil` with the following parameters:

```
./lmutil lmhostid -flexid
```

If the driver is installed correctly you should see the message as the following example results:

```
The FLEXlm host ID of this machine is "FLEXID=9-a2b2c845"
```

License and License Server Setup

If you experience problems setting up the license server, locate the license server log file and contact Lattice Semiconductor Technical Support.

Server Log File (Linux) - The `./startlicense` script creates the log file in the server directory. The name of the log file is `debug.log`.

Server Log File (Windows) - If the server is started with the `startlicense.bat` file, the `debug.log` file will be created in the server directory.

If the `LMTOOLS` program is used, the log file path depends on user settings.

References

- FAQ: How do I install a new FLEXid USB keylock? (support.aldec.com)
- FAQ: Is there a quick way to set up an ALDEC License Server? (support.aldec.com)
- FAQ: How can I obtain license daemons? (support.aldec.com)
- FLEXNET Licensing, End User Guide (LicensingEndUserGuide.pdf)
- Lattice USB keylock drivers and floating license server daemons: <http://www.latticesemi.com/licensing/index.cfm>

Technical Support Assistance

e-mail: techsupport@latticesemi.com

Internet: www.latticesemi.com

Revision History

Date	Version	Change Summary
June 2008	01.0	Initial release.
February 2014	01.1	Updated Introduction section. Added Windows 7 to the list of supported platforms and operating systems.
		Updated Technical Support Assistance information.