



Agilent Technologies

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AMA Installation and License Setup

Download

Go to <http://www.agilent.com/find/eesof-ama-latest-downloads> for the product and licensing software download. Currently AMA is working based on Cadence Virtuoso(R) environment which it is usually on Red Hat Enterprise Linux 3 or above.

The license configuration is FlexNet floating. AMA 2011.1.3 requires the use of FlexNet 10 software that includes the avpmqa vendor daemon. You can download the correct FlexNet software from the FlexNet Licensing Software tab of the AMA software version you are running.

JRE (Java Runtime Environment) 1.6 or above is required to run AMA successfully. Agilent EEsof EDA recommends that you use the version of JRE which shipped together with the AMA program.

EDA Tool Prerequisites

To run AMA, at least one of the tools listed below is required in every category.

Layout Generation:

- Cadence IC51 or IC61

Netlist Extraction:

- Mentor Graphics Calibre
- Synopsys Hercules & StarRCXT
- Cadence Assura & QRC

SPICE Simulation:

- Synopsys HSPICE
- Cadence Spectre.

Install AMA

Copy the software (e.g. amaV2011.1.3.tar.gz) to your target directory. Decompress the package with the following command:

```
$> tar xvzf amaV2011.1.3.tar.gz
```

Setup the following variables in the SHELL configuration file (~/.bashrc or ~/.cshrc, etc.). Use the bash format as an example (Here, \$AMA_HOME is your AMA installation path):

```
export AMA_HOME=/home/username/agilent/amaV2011.1.1
```

```
export AMA_SET=/home/username/.ama_set
export PATH=$PATH:$AMA_HOME/bin
export LD_LIBRARY_PATH=$AMA_HOME/lib
```

Setup License

Now you're ready to setup your licenses to run AMA properly. First you must apply for your licenses from Agilent EEsof EDA:

<http://www.agilent.com/find/eesof-ama-licensing>

Once you receive your licenses, you are ready to begin License Setup. License setup involves establishing a license server to serve the licenses and configuring the machine that runs AMA to checkout licenses from the license server. The machine that runs AMA and checkout licenses is known as the client.

A typical scenario is to install AMA and serve AMA licenses on the same machine. In such a scenario, you would do the Server Setup and Client Setup all on the same machine. If your license server is a different machine than the one you run AMA on, do the Client Setup on the machine that runs AMA and do the Server Setup on the remote license server machine.

Server Setup

Follow the steps below to install and configure the FlexNet server on a Linux or Solaris system:

- 1) Download the Linux or Solaris version of FlexNet server package. Unzip all the FlexNet files into one folder on your computer (e.g. `/home/username/agilent/license/`). Skip this step if you already have FlexNet installed on your computer.
- 2) Save the license file you received from Agilent EEsof EDA, rename it `license.lic` and copy `license.lic` into the same folder in which you installed FlexNet in the previous step.
- 3) One example of your license file is shown below:

```
SERVER this_host E4115B397509 5800|
VENDOR avpmqa
INCREMENT AMA_SIMIF avpmqa 2011.1000 10-jun-2012 1 ISSUER=LICENSEID=2473740 {
    20A9 DD07 D33C 7175 214D DE72 39F4 08D6 504B 1601 239F 5F66 0167 4ABF
```

The SERVER line contains a special wildcard hostname ("this_host"), your machine's host ID and a port number of 5800.

Hostname

The special wildcard hostname "this_host" causes FlexNet to automatically use the hostname of your machine and you normally do not need to edit the license file. However, there are some cases when you may need to specify your machine's hostname. If so, edit the license file and change "this_host" to be the hostname of your machine.

You can determine your machine's hostname by opening a terminal and entering the

command:

```
hostname
```

Host ID

The host ID cannot be changed and you should never modify it. (If the host ID is not correct, then you need to have new license generated using the correct host ID.)

Port Number

The port number 5800 is the default port used for AMA licenses. If this port is already in use on your machine, you can change it to any free port number. FlexNet commonly uses ports in the range 27000 to 27009, so it's a good idea to use a free port in this range if you can't use port 5800.

- 4) Open a terminal and change directory to where your FlexNet software and license file are located.

```
cd /home/username/agilent/license/
```

Then run the following command:

```
./lmgrd -c ./license.lic -l ./agilent.log
```

You can read the contents of the `agilent.log` file to verify your licenses have started correctly.

- 5) Whenever the license server is restarted, run the `lmgrd` command to restart the license server. Your license server setup is now complete.

Now you're ready to do the client setup.

Client Setup

The client is the computer you run AMA on. For AMA to run successfully, it must be able to find the license server and checkout a license. This is done by setting an environment variable named `LM_LICENSE_FILE` that AMA uses to find the license server and request a license.

Set the environment variables for the license to the shell configuration file following the format *port@host*. Here port is the port number specified on the SERVER line in the license file during the server setup and host can be either the hostname or IP address of the license server computer.

- For the C shell user, add "setenv LM_LICENSE_FILE port@host" to your `~/tcshrc` or `~/cshrc` file.
- For the bash shell user, add "export LM_LICENSE_FILE=port@host" your `~/bash_profile` or `~/bashrc` file.

If the client and the license server are the same machine, you can specify *port@host* as:

5800@127.0.0.1 (or 5800@localhost)

For the remote mode, please contact your IT admin for the information about port and host. For example, the following are permissible formats:

5800@myserver; or 5800@192.168.0.1

Register AMA in Cadence DFII

Load the AMA SKILL functions to memory and register AMA menu to CIW:

- Append a line at the end of ~/.cdsinit:
`load(strcat(getShellEnvVar("AMA_HOME")) "/lib/skill/amaInit.il")`
- or run the command line below in CIW:
`loadstrcat(getShellEnvVar("AMA_HOME")) "/lib/skill/amaInit.il")`

An example of the .cdsinit file is shown below:

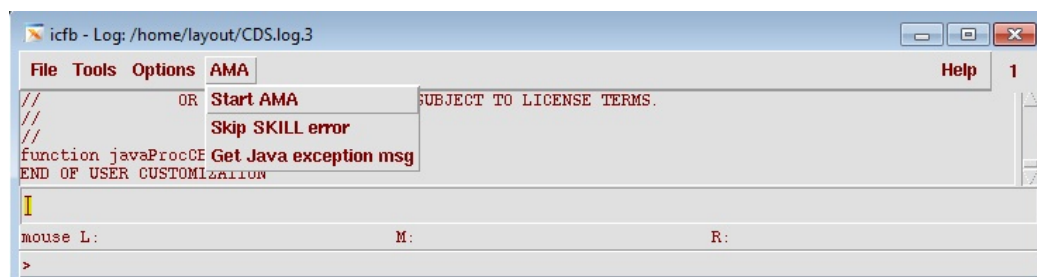
```
.cdsinit* x
;; Open Lib Manager into
;ddsOpenLibManager()

load( strcat( getShellEnvVar("AMA_HOME") ) "/lib/skill/amaInit.il" ))

printf("END OF USER CUSTOMIZATION\n")
;END OF USER CUSTOMIZATION
```

Launch AMA

To start AMA in the main menu of icfb (or virtuoso), choose "AMA -> Start AMA", as shown below.



There are two sub-menus under the AMA menu (**Skip SKILL error** and **Get Java exception msg**) for debugging purposes. When there is an error in the SKILL code, the AMA main window is blocked because it is still waiting for a SKILL return, then the user can use the **Skip SKILL error** menu item to continue the remaining project flow. The **Get Java exception msg** enables the user to print the exception and background information which Java presents in the CIW.