

INSTALLATION AND USE OF THE ANALOG FLAVOR LICENSE SERVER

Running an Analog Flavor license server allows to share licenses among several users and computers.

The license server is controlled through 3 executables on Linux and a 4th one on Windows.

These executables are located in the `.../analogflavor/license` directory or your software installation. To use these executables you need a valid license file.

If you don't have a license file or something seems wrong with your license file you can run the executables in test mode. This also allows to find an IP and port index that you can provide for a license file request. Details on this are provided below.

STARTING A LICENSE SERVER (LINUX)

Here we describe how to start a license server on Linux.

1. login to the computer who will host the license server. Start a terminal.
2. `> cd .../analogflavor/license`
3. check the license file "license_af.txt". It's header should look like this:

```
*** Analog Flavor Licence File
* Licence       : Production Licence (server)
* Customer      : ....
* Hardware Id   : ....
* Creation Date  : Thu Mar 01 12:58:11 2018
* Expires       : Fri Aug 03 13:57:36 2018
* License server : IP = .... PORT = ....
```

make sure the IP and PORT are valid. If not you will need a new license file. Just editing these values won't help.

4. Start the license server:

```
> af_license_server_start
```

On Linux the license server runs as a demon. That means it will run even if you log out.

5. The license server generates a logfile if started with the "`--log`" option. If something doesn't work as expected, please re-start the server with this option and check the generated file for error messages.

INSTALLING AND STARTING A LICENSE SERVER (WINDOWS)

The above section on Linux also works on Windows. However the license server will stop if your terminal closes. Nevertheless it might be a good idea to follow the

same procedure as Linux until you are sure that everything works. Now you can install the license server as a Windows service.

1. Open a command prompt with administrator rights.
2. `cd ...\analogflavor\license`
3. Install the license server as a Windows service by running

`> af_license_server_service.exe --install`

or

`> af_license_server_service.exe --install -log`

if you want to generate a log file.
4. Now the service can be started:

`> sc start AnalogFlavorLicenseServer`
5. The service should automatically restart after Windows reboots. This default behavior can be altered by running the "services.msc" utility.
6. The service can be stopped as follows:

`> sc stop AnalogFlavorLicenseServer`
7. The service can be removed as follows:

`> sc delete AnalogFlavorLicenseServer`

CHECKING THE LICENSE SERVER (LINUX, WINDOWS)

Now the license server is running, you can check that it handles connections.

1. `cd .../analogflavor/license`
2. Check the status of the license server by running the command

```
> af_license_server_status
```

The output looks as follows (if the license server is found).

```
- I - 00:00:00.000 - The parsing of license file "license_af.txt" succeeded.
- I - 00:00:00.000 - Read license file "license_af.txt".
- I - 00:00:00.001 - Connected to ....., PORT ....
- I - 00:00:00.003 - Detected Analog Flavor license server on IP .....,
PORT .....
- I - 00:00:00.003 - The license server on IP ....., PORT ... has 0 active
connections.
- I - 00:00:00.003 - Detected 1 Analog Flavor license server.
```

3. Please perform this check on the computer running the license server first.
4. Now perform this check on a client installation where the Analog Flavor software will be used.
5. To make sure the license server is found and your license is valid you can run

```
> .../analog_flavor/bin/bspwave
```

Please do so on the computer running the license server and on your client

installation.

Check the "message logger" it should mark the connection details. The menu item "Tools -> License -> Information" also shows details about the license server connection.

6. If the license server is used for the Matlab toolbox, please run an example to make sure this works:

```
> cd ../analog_flavor/examples/waveform_parser_library/matlab_toolbox/
examples_object_oriented/
> matlab -nojvm -nosplash -r "try; af_waveform_parser_test_object_oriented;
catch exception; end; quit;"
```

also test the matlab script

```
> matlab license_server_test_example.m
```

This example gives some hints on how to debug problems.

STOPPING THE LICENSE SERVER (LINUX)

The license server can be halted either by a

1. "kill <pid>"
2. or by using the command

```
> af_license_server_stop
```

The command "af_license_server_stop" only works from the computer running the license server.

STOPPING THE LICENSE SERVER (WINDOWS)

1. Open a command prompt with administrator rights.
2. The service can be stopped as follows:

```
> sc stop AnalogFlavorLicenseServer
```

3. Alternatively the service can also be stopped by the "services.msc" utility.

TESTING THE LICENSE SERVER WITHOUT LICENSE

The executables af_license_server_start and af_license_server_status can be run without license to check if the server IP and port will work.

1. Find an available port on the server computer. Then run the license server as follows:

```
> af_license_server_start --test <server port index>
```

On Linux the server will not start as a demon.

2. Now run af_license_server_status on the same computer:

```
> af_license_server_status --test <server ip>:<server port index>
```

The argument "server ip" has to be the permanent IP address of the server computer or it's name. This makes sure the license server is up.

3. Now run the same command on the client computer. This makes sure the license server can be reached over the network.

TROUBLESHOOTING

1. All "af_license_server_*" tools can be called with the "--help" option. Some of the available options are made specifically to solve and debug issues that can arise from running and using the license server.
2. If the license server doesn't start properly or can't be reached it should be re-started and instructed to create a log file:

```
> ./af_license_server_start -log
```

The output contains the line:

```
- I - 00:00:00.016 - License server log file path =  
"....af_license_server_log_00001"
```

All connections to the license server are logged to this file. Please send us this file if you need support.

3. The server computer might not be reachable. Please check this by running the "ping" utility.

```
> ping <server IP>
```

4. A firewall might prevent the connection to the license server. Please create a rule to define an exception here.
5. When a hostid is provided instead of an IP address for the license server, the licensing mechanism must be able to resolve this hostid to a valid IP address on all computers on your network.

REPLACING AN OLD LICENSE FILE BY A NEW ONE (LINUX)

If the IP and the port_index of the license server hasn't changed, you only need to replace the license file on the server side and restart the server.

1. login to the computer who hosts the license server. Start a terminal.
2. > cd ../analogflavor/license
3. stop the license server

```
> af_license_server_stop
```

4. replace the old license file "license_af.txt" by a new one.
5. Start the license server

```
> af_license_server_start
```

If new license executables must be replaced together with the new license file, install the new software package on the server computer. Now run "af_license_server_start" from this software installation.

REPLACING AN OLD LICENSE FILE BY A NEW ONE (WINDOWS)

If the IP and the port_index of the license server hasn't changed, you only need to replace the license file on the server side and restart the server.

1. login to the computer who hosts the license server. Start a command prompt with administrator rights.
2. stop the license server

```
> sc stop AnalogFlavorLicenseServer
```

3. replace the old license file "license_af.txt" in "...\\analogflavor\\license" by a new one.
4. Start the license server

```
> sc start AnalogFlavorLicenseServer
```

If new license executables must be replaced together with the new license file

1. install the new software package on the server computer.
2. Now remove the old service executable

```
> sc stop AnalogFlavorLicenseServer  
> sc delete AnalogFlavorLicenseServer
```

3. cd to the "...\\analogflavor\\license" directory of the new Analog Flavor software installation.
4. Install and run the license server as a Windows service as explained above.