

# IDL

IDL is a commercial tool for data visualization with its own programming language.

See also: <http://www.exelisvis.com/ProductsServices/IDL.aspx>

Our introduction course has a [chapter on IDL](#) as well.

## License issues

If you experience IDL to fall back to demo-mode, that usually means that all licenses are in use. There is a limited amount of license available for the use in the institute. You can get an idea of who is using IDL by typing at the UNIX command prompt:

```
licenses idl
```

At the end of the output you may see a line like:

```
Users of idl:  (Total of 256 licenses issued;  
Total of 198 licenses in use)
```

indicating the current usage. Then the total in use licenses is within 6 license count from the licenses issued you will automatically be downgraded to demo-mode. A web page listing the [license usage](#) is also available.

## Making smart use of available licenses

Multiple IDL processes can be run in the same session, using only one set of 6 license counts. If user, computer and the value of \$DISPLAY are identical, all jobs count as just one. The smart way to achieve this, is to use just one ssh connection to the remote machine, and start multiple terminals (or a terminal with multiple tabs) on the machine, running IDL in each terminal. The [SFINX](#) setup contains an alias `rterm` which does just that (use as `rterm gooimeer` and start your idl sessions from that terminal).

## Using licenses from your laptop (part 1: trusted wired connection or VPN)

If you run IDL on your laptop, you need to point it to our license server. You can either set the environment variable `LM_LICENSE_FILE` to point to our server and port number:

```
setenv LM_LICENSE_FILE 1700@license.strw.leidenuniv.nl
```

or point it to a local file which should contain:

```
SERVER license.strw.leidenuniv.nl any 1700
USE_SERVER
```

Once you have done that, licensing is set up for all software that work with the FlexLM licensing software (currently IDL, Maple and Matlab, probably more in the future). And, you will no longer have to change this setup when new versions of the software become available.

## Using licenses from your laptop (part 2: remote access and wifi network)

To reach our license server from outside the building, and from the wireless network, you will need to tunnel the connections through ssh (in this example, on `ssh.strw.leidenuniv.nl`): and then, on your laptop, point `LM_LICENSE_FILE` to `1700@localhost` instead of the actual server, since `localhost:1700` is being forwarded to the license server.

Example (from a Linux or Mac laptop):

```
ssh -g -L 1700:license.strw.leidenuniv.nl:1700 -L
31700:license.strw.leidenuniv.nl:31700
yourstrwusername@ssh.strw.leidenuniv.nl
```

This opens an ssh session on our 'ssh' server. Keep this session open! Once it is closed, the port forwarding is closed as well! Now, from another terminal window or tab, you can start `idl` after pointing to the local host as license server:

tcsh syntax:

```
setenv LM_LICENSE_FILE 1700@localhost
```

or bash:

```
export LM_LICENSE_FILE=1700@localhost
```

And from that session, you can start `idl` or `IDLde`.

You may want to simplify this, by setting the `LM_LICENSE_FILE` setting permanently, and making an alias or shell script for setting up the ssh tunnel.

For Linux users using `csh` or `tcsh`, put this in your `.cshrc`:

```
setenv LM_LICENSE_FILE 1700@localhost
alias licensetunnel 'ssh -g -L 1700:license.strw.leidenuniv.nl:1700 -L
31700:license.strw.leidenuniv.nl:31700
yourstrwusername@ssh.strw.leidenuniv.nl'
```

For Linux users using `bash`, put this in your `.bashrc`:

```
export LM_LICENSE_FILE=1700@localhost
alias licensetunnel='ssh -g -L 1700:license.strw.leidenuniv.nl:1700 -L
```

```
31700:license.strw.leidenuniv.nl:31700  
yourstrwusername@ssh.strw.leidenuniv.nl '
```

For Mac users, this same setting should go into your `.profile` in your home directory (create the file if it doesn't exist already).

## Software to install on your laptop

We have the most recent IDL downloads available for you to put on your laptop. Go to `/software/idl/download` and copy the appropriate file to your laptop. Follow the instructions above to connect to our license server. Note that these instructions are only valid for IDL versions of 8.5 and lower.

Note: it is not possible to run a newer version of IDL than the one for which we have the license. This will mean that sometimes, it may take some time before you can run the latest and greatest. Please check in this downloads directory or ask the computergroup for the supported versions before installing!

## See also

- [FlexLM](#) license server

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