

# Sphinx environment at the Sterrewacht and Lorentz Institute

To facilitate running a wide variety of software, we provide all users with the Sphinx environment. This is a customized environment setup to facilitate different setups for different machines or different applications. Part of this versatility is implemented through a set of databases: [Syscap](#) (containing a list of software, their location and special options) and [Envcap](#) (containing environment settings).

## Installation

To install the Sphinx environment on your account, run

```
/software/sphinx/Install
```

This will install all the setup files (and if old files existed, these will be renamed with a `.old` extension). Most importantly, `.bashrc` and `.bash_profile` will be created (and `.cshrc` and `.login` as well, to allow running tcsh as shell). Feel free to modify those files, but be careful not to overwrite them or replace the environment setup altogether. It is also possible to leave our default files untouched, and put your own customizations in `..bash_settings` which will be read from the Sphinx `.bashrc` if it exists. Also be careful when creating additional files. E.g., if you create a file named `.tcshrc`, it will be used in preference to `.cshrc` in the tcsh-shell, bypassing the Sphinx setup.

## Application startup scripts

Many applications are available on the `/software` disk and can be started simply by typing their name, without any further setup. This includes applications like IDL and Mathematica, and many astronomical packages.

More information: [sphinx scripts](#)

## Environment modules

A major part of the Sphinx setup, are the environment modules. These are configurations to modify the shell's environment for running a particular application. This allows having several versions of applications (e.g. [compilers](#)) installed, and allow the user to choose. Also, this prevents all kinds of nasty incompatibilities between packages, which previously made it difficult to offer certain applications. See `man module` for all the specifics. Some useful commands: To get a list of available modules, type:

```
module avail
```

To load a module (or the version marked default if multiple versions exist), use:

```
module load packagename
```

A loaded module can be unloaded as well using `module unload packagename`, a very useful feature if you want to compare different environments, e.g. to try different compilers.

More information: [Sfinx modules](#)

## Packages

For some software, the environment module alone is not sufficient. In these cases, a package command is available to initialize the environment and do further setup (eg software that needs to create files on startup, something that cannot be done by the environment modules).

This is currently needed for: *iraf*(\*), *miriad*, *newstar*, *scisoft*, *starlink*

(\*) For iraf, such an initialization is only needed to compile your own iraf tasks. To run iraf, no special setup is needed, so a casual iraf user can just use `iraf` or `cl` to start the program without any further setup.

More information: [Sfinx packages](#)

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