

# LOFAR cluster Contributed Software Guidelines

There are science or development groups that would like to add pieces of software to the suite of software currently available on the cluster (see [here](#)).

Here we provide some guidelines.

## OS and library version limitations

The cluster runs on Ubuntu 8.04 LTS. our policy is to be restrictive insofar as using non-distribution supplied versions of libraries or tools. In some cases, new versions can be added to the system without problems (e.g., the Pythonlibs), but we have also seen cases (e.g., Boost 1.40) where build systems were not able to properly cope with the available mix of old and new versions, resulting in build failures, link failures or runtime failures.

It is therefore advised to be aware of the limitations of the current OS in terms of supplied library versions, and to the best effort to have your code built using the available versions of libraries. If this is not possible, we can try to accommodate a newer version for you, but we cannot guarantee that this will not cause any problems for other applications.

We will certainly **not** provide newer version of the C/C++ compiler (gcc, g++) and associated libraries.

## Build requirements

If your package development process profits from a daily or weekly build, we can accommodate that by setting up a build script that can be run from a cron job. We currently have this available for the Loflm and the LUS packages, but others can be added as well. But please think about the impact of a failed build when you have multiple users depending on your software. We can also accommodate fixed releases next to regular builds. That allows your users to have a stable version for day-to-day work, and a state-of-the-art version for testing.

## Package initialization

Often packages require PATHs to be set correctly, or have library paths added to the user's LD\_LIBRARY\_PATH env. var. Sometimes, packages require custom env. vars to operate. This can be accommodated by us, as long as it is clear what these env. vars. should be for your package. Most packages have a csh-based initialization script in the directory /opt/scripts, which through some wrapper is made to work also for bash-shell users. Adding new env. vars. requires some manual work, though, so if this is needed, let us know.

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