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- **Subject**: [alabobo2] gmkpack 6.8.0 major update
- **Date**: Thu, 16 Jul 2020 15:32:48 +0200 (CEST)

Dear all,

a major update of gmkpack (6.8.0) is being released.

It should become the default version in a few days, but for now it is accessible as gmkpack.dev on the following machines :
beaufix, prolix, belenos :
export GMKROOT=/home/gmap/mrpm/khatib/public/bin/gmkpack.dev
PCs of GMAP :
export GMKROOT=/home/common/sync/tools/gmkpack.dev

The corresponding tar file can be found on ecfs and hendrix :
ec:/rme/hirald/gmkpack/gmkpack.6.8.0.tar.gz
hendrix:/home/khatib/gmkpack/gmkpack.6.8.0.tgz

You are warmly invited to test this new version !
There are many innovations inside, however this version remains compatible with existing packs and compilation scripts.

Changes in a nutshell :

- fix several bugs, especially the never-ending Fortran recursivity of dependencies issues at recompile time (when modules are used like russian dolls)
- make GMK_SUPPORT a real environment variable and with a directory "link" inside, so that a community of users can share the global installation of gmkpack but use their own flavour of configuration files, executables and linking rules
- No need anymore to specify -Wl,-rpath for background libraries if they are referenced in the configuration file as shared object libraries (extension is .so on Linux or .dylib on macos)
- Mac users will enjoy the support of zsh
- support for .fypp files, which may appear in the future cycle 49
- support for external libraries to be compiled in the framework of a pack ("hub" directory). This new functionality is helpful for C++ codes because maximum consistancy between compilers and compilers options is necessary to build executables made of different code languages. With this new functionality gmkpack will be able to drive the compilation of ECMWF libraries

like eckit/fckit, atlas, oops, in a consistent way with the rest of the source code.
To learn how to use this "hub" functionality, please read the documentation file
~/GMKROOT/gmkpack.dev/HOW_TO_USE_THE_HUB

Details :
Changes in version 6.8.0 :

- support for .fypp files (requires python). Read the file
NOTE_ABOUT_FYPP_FILES
- support for Atlas library (needed if the cpp macro WITH_ATLAS is defined)
- support for external libraries to be compiled in the framework of a pack
("hub" directory)
  Read the file HOW_TO_USE_THE_HUB
- new option "-K" to create a local branch of that "hub" (background branches
are always propagated)
- new option "-k" to disable the creation of a local branch of src/ (background
branches are always propagated)
- automatically determine and add rpath for external libraries defined in
configuration file
  if their extension is .so or .dylib
- fix error code in return to gmkpack
- fix : add autogenerated or preprocessed files directories in the list of
dependencies research projects
- fix a severe dependencies issue at recompile time for modules (recursivity of
dependencies)
- fix : dynamic update of include/modules path needed because of recursivity
of modules dependencies
- fix a bug in the compilation of precompilers causing an error if compilation is
stopped
  before the term and re-submitted without cleaning the pack
- fix spurious debugging lines, like one causing files setup_aeolus and
arpifs_excluded_file to be copied on $HOME
- fix the detection of number of core on Apple macos (recent versions)
- fix a bug in the recognition of the configuration file from a source pack
- fix the option "no recursive update" which was bugged for C code
- GMK_SUPPORT is now a true environment variable, which allows a group of
user to share its content
- Add a directory "link" to $GMK_SUPPORT in order to define executables,
preempting on the executables defined in
  $GMKROOT/link.
- extend aladin dummy library with the directory interpol
- Support for zsh (Apple macos)
- support for clang compiler
- add executable foomaster
- add executable obsconvert. Please ask me to add a new executable before
complaining it has been missed :-(

- cpp usage : if CPP is not defined in the configuration file, then the C compiler will be used with the
  proper options to invoke the preprocessor only. This is preferable to using an explicit cpp because it
  improves the consistency with the preprocessor used within the compiler. Unfortunately certain compilers
  (Intel namely) cannot work as a preprocessor only, therefore CPP is still needed.
- new variable LNK_EXEC in configuration file to host linker options specific to executables and not to
  shared-object libraries
- readpack now returns an error message if more than one file is found in the directory .gmkfile
- disable source code filtering in oopsifs project
- libs4py has extension .dylib on macos
- remove support for .mnh/.MNH files
- miscellaneous other minor fixes

Ryad

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- **[alabobo2] gmkpack 6.8.0 major update**, *EL KHATIB Ryad, 16/07/2020*

Archives gérées par MHonArc 2.6.16.

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