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  - **Subject:** [alabobo2] gmckpack is now updated to the version 6.8.0
  - **Date:** Mon, 3 Aug 2020 18:05:41 +0200 (CEST)
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Dear all,

gmckpack.6.8.0 is now the default version on beaufix, prolix, belenos and the PCs of GMAP.

The previous version is still accessible as gmckpack.old.

The corresponding tar file has been updated with the latest changes and can be found on eafs and hendrix :

ec:/rme/hirald/gmckpack/gmckpack.6.8.0.tar.gz

hendrix:/home/khatib/gmckpack/gmckpack.6.8.0.tgz

There are many innovations inside, however this version remains compatible with existing packs and compilation scripts.

Changes in a nutshell :

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- 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 gmckpack 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 consistency between compilers and compilers options is necessary to build executables made of different code languages. With this new functionality gmckpack 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/gmckpack.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 gmckpack
- 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

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- **[alabobo2] gmckpack is now updated to the version 6.8.0, EL KHATIB**  
*Ryad, 03/08/2020*
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