

GMKPACK

- What is that ?
- Genesis
- How does it look like ?
- Recent evolutions
- Future evolutions

Gmckpack : what is that ?

- A tool to compile code, build object library, and load executables
- Specially designed to support in the same framework non-conventional source code (like ODB) beside « classical » source code like aladin
- An attempt to provide a user-friendly interface for developers/scientists

Gmckpack : genesis (1)

- Wrapper of a « universal » makefile which did not succeed : « mckpack »
- Home-made procedure in Perl : efficient but not suitable for developers : « gmak »
- => a long way to achieve the first user-friendly wrapper to gmak :
Gmckpack.4.4 = « version 1 » (2001)

Gmckpack : genesis (2)

- Gmckpack.5.1 = « Version 2 » : designed to be platform-independent (2003)
 - Ability to build reference environments (full cycle)
 - Ability to run on other system than the VPP
- Gmckpack.6.1 = « version 2 ½ » :
 - Stable framework for future evolutions

Gmckpack : how does it look like ?

- Creation of a reference « pack » by an administrator :
% gmckpack -a -r 29T2 -p aladin
➤ src/local/ lib/ bin/ sys/ ics_aladin*
- Developers' s modset upon the reference « pack » :
% gmckpack -r 29T2 -b my_mods -p aladin
➤ src/local/ src/29T2 lib/ bin/ ics_aladin*

Gmckpack : recent evolutions

- Support for Meso-NH source code :
 - New vobs « mpa/ » and « mse/ »
 - Files extension « .mnh » ⇔ .f90, implicit-kinded variables
- Norms checker report in dayfile
- Bugs perpetual chase
- Upgrade :
 - A bit more secure
 - Re-build of compilation scripts still needed
 - 1 new environment variable (GMKTMP)
 - No incremental update

Gmckpack : future evolutions

- Finalize the *portability* (LINUX, cross-compilation platforms)
- *Speed up* needs to re-write all in Perl
- Improve the *parallelism* (source code growing !)
- « Externalize » the *source code specificities*
- Enable *alternative architecture files* for a given platform
- Revisit the *libraries managements* (do as the source code)

Gmckpack : timetable for next releases

- Timetable not planned ! Content not planned !
- Intermediate releases will come out anyhow :
 - to fix bugs
 - for small improvement
- Upgrade can be expected at the time
Météo-France will change its supercomputer
(in coordination with « GCO »)

Thank you for using Gmckpack !



Contributions or suggestions are
welcome anytime

