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FRAMA-C BUILD FRAMEWORK

Jbuilder design and hacking session | Many peoples

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Started 2004



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OCaml 3.08







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- OCaml 3.08
- No native dynlink







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- No native dynlink
- So no plugins



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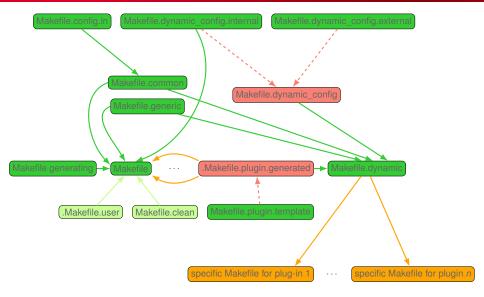
- 5000 lines of Makefile
- 300k lines of OCaml
- Plugins
- >= 4.02.3
- Use ocamlfind



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Monstruous Makefiles









Internal/External Compilation

External:

- 1. Compile and install Frama-C
- 2. Compile and install a plugin

Internal:

- 1. Drop a plugin in the source of Frama-C
- 2. Compile and install Frama-C and the plugin







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Jbuilder: out of the box (usually for dependencies)







- Dependency description and checking written in m4 (autoconf)
- Also written in Makefile...







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- Out of the box!
- external-lib-dep!
- select in libraries!





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- Path to ocamlc, ocamlopt (for script compilation)
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- Generation using a rule sed
- Jbuilder knows of some values (jbuilder variable)
- About, -prefix, -libdir





Kernel needs to know what is the mode

For frama-c-gui: link specially a module just after Config





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For frama-c-gui: link specially a module just after Config

PR#172: play with local dependencies, too complicated Issue#136 (package variant) is a way better solution





Use module pack

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- module type of





Use module pack

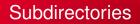
- Hack for a normal and gui version: same texttt-for-pack
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Module alias

- Define external alias module: interface of the library
- PR#106: Define and ensure which library sees private modules







Just need to list subdirectories







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Design choice: one library/executable, one directoryPR#35:

- 1. Proposed to add a way to merge directories
- 2. Finally, copy_files with wildcard







- ./configure [-prefix=...]
- make [DESTDIR=...] install
- Default share directory: /usr/local/
- Default for ocaml library: ocamlfind ex: debian /usr/lib/ocaml/
- Would be cool: install directly as a real opam package, instead of using opam pin. Cf. Gabriel's compiler-conf





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- make [DESTDIR=...] install
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- Would be cool: install directly as a real opam package, instead of using opam pin. Cf. Gabriel's compiler-conf
- Use opam-installer
- Default opam layout: ocaml library \$prefix/lib

PR#179:

- 1. Set -libdir using ocamlfind if available
- 2. Interaction with -prefix to be precised





local installation

For tests

- For local execution
- Set FRAMAC_LIB, FRAMAC_PLUGIN, FRAMAC_SHARE
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- For local execution
- Set FRAMAC_LIB, FRAMAC_PLUGIN, FRAMAC_SHARE
- Hack for ocamldep (empty .ml)
- jbuilder exec
- Set OCAMLPATH,
- Other user defined environment variable?
- Copy all the files that will be installed?







make distrib

Put all the source files, and files to install, definable







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git archive better?

What to do with generated files to add?







Check the headers

Modify them







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Jbuilder knows the list of source files

Could be done during compilation as a warning







Check with ocp-indent (a little slow no -check-only)

Apply indentation







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