SEP # : 30 – Change of header files directory in the Scilab distribution

Version: 1
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Review:
Commented:
State:
Scilab-Version: 5.2 or 5.3
Vote:
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Abstract

The current installation/packaging of Scilab keeps header files in their modules, this SEP propose to move all of them in one directory. Note that this SEP applies to all systems but Windows.

Rationale

For now, in the binary or packaged versions of Scilab, all header files mandatory for the dynamic link are installed into dedicated directory split by module.

Currently, header files will be stored following the pattern:

/usr/inclure/scilab/core/

/usr/inclure/scilab/fileio/

/usr/inclure/scilab/localization/

[...]

Despite the clean aspect of this solution, it is causing more problems than it solves. Indeed, because of this separation, a user which will need advanced features will have to add more paths into the CFLAGS/CXXFLAGS in order to access to this feature.

Because of this separation, an other (minor) problem has been introduced. In the dynamic link functions, there is the need to provide Scilab include paths to the compilers. For now, paths to the header of the modules localization, MALLOC, output_stream, core, mexlib and api_scilab are necessary for most of the case. This is causing a long command line making development harder. For example of the full command line, see [1].

These points lead to complexity and various side effects.

Proposal

The proposal is pretty simple. Instead of keeping all include files separated, all of them should be included into a single directory.

For the example upper, this would give only the following single directory:
/usr/inclure/scilab/

This would simplify access to Scilab's header files of other modules much more easily but also the use of dynamic link features.

The main problem of this proposal would be to make sure that all installed header files have unique file names.

Note

- The compatibility will not be broken since all current header files in the selected directory will be present and compilers accepted non existing paths as arguments.

- The current behavior (header files per module) will remain the same when Scilab is built within the source tree.

Changelog

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1.0 – Initial version
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[1]
make CFLAGS=" -I/home/sylvestre/dev/inria/scilab.git/scilab/libs/MALLOC/includes/
-I/home/sylvestre/dev/inria/scilab.git/scilab/modules/localization/includes/
-I/home/sylvestre/dev/inria/scilab.git/scilab/modules/output_stream/includes/ -I/home/sylvestre/dev/
inria/scilab.git/scilab/modules/api_scilab/includes/
-I/home/sylvestre/dev/inria/scilab.git/scilab/modules/mexlib/includes/
-I/home/sylvestre/dev/inria/scilab.git/scilab/modules/core/includes/ " CXXFLAGS="
-I/home/sylvestre/dev/inria/scilab.git/scilab/libs/MALLOC/includes/
-I/home/sylvestre/dev/inria/scilab.git/scilab/modules/localization/includes/
-I/home/sylvestre/dev/inria/scilab.git/scilab/modules/output_stream/includes/ -I/home/sylvestre/dev/
inria/scilab.git/scilab/modules/api_scilab/includes/
-I/home/sylvestre/dev/inria/scilab.git/scilab/modules/mexlib/includes/
-I/home/sylvestre/dev/inria/scilab.git/scilab/modules/core/includes/ " FFLAGS=" -I/home/sylvestre/
dev/inria/scilab.git/scilab/modules/core/includes/ "