

SEP #18 : Scilab non-windows binary perspective

Title: Scilab non-windows binary perspective
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Abstract

The aim of this SEP is to design new binaries.

Rationale

Current Scilab binary

The main way Scilab is distributed is as a big archive file containing every piece of Scilab. Under Linux/Mac OS X/Unix, the current procedure is pretty easy.

- 1)The configure call is enabling all the options (help, matio, umfpack, pvm...) available
- 2)We are building everything
- 3)In the distributed binary, all the modules are activated (and can be deactivated by the user)

Proposal

Create three binaries:

- 1)*classical* - The GUI application (equivalent to Scilab Standard Mode)
- 2)*Advanced Command-Line Interpreter (ACLI)* - Interpreter in command line with the graphic capabilities available (equivalent to Scilab NW Mode)
- 3)*Command-Line Interpreter (CLI)* - Interpreter in command line without the graphic or Tcl/Tk capabilities (faster) (equivalent to Scilab NWN Mode)

Reasons

There are a few reasons for this change:

Facilitate the use of Scilab as a script engine

ACLI and CLI will be updated in order to be able to call Scilab as an interpreter.

As a consequence, executing a script starting `#!/usr/bin/scilab-cli` must launch the script into Scilab

(just like with Python, Perl or bash for example) with the appropriate flag (disabling the banner for example).

This would enable scripts like:

```
#!/usr/bin/scilab-cli  
disp(argv(0)+argv(1))
```

Technical note

Scilab would have to be extended to handle this case in different ways:

- Better management of the arguments
- Handle exit system code (See: http://requestzilla.scilab.org/show_bug.cgi?id=505)
- Pipe management. This would enable things like "echo 'disp(1+2)|scilab-cli"

Highlight the different possibility of Scilab (GUI, advanced command line, simple command line)

For now, the existence and the behaviour of options -nw & -nwni are not obvious for a new user. This would highlight this possibility without breaking the habit of our users.

Improve the packaging capabilities of Scilab

Example Usage

Changelog

1.0 – Sylvestre Ledru <sylvestre.ledru@scilab.org> - Initial version

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