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Installation issues

Subversion client

When I compile soclib platforms, I get the following types of error:

```
soclib/soclib/lib/elf_file_loader/src/elf_file_loader.cpp:40:23: error: dpp/foreach: File or directory not found
soclib/soclib/lib/elf_file_loader/src/elf_file_loader.cpp:42:24: error: elfpp/object: File or directory not found
soclib/soclib/lib/elf_file_loader/src/elf_file_loader.cpp:43:24: error: elfpp/symbol: File or directory not found
soclib/soclib/lib/elf_file_loader/src/elf_file_loader.cpp:44:25: error: elfpp/section: File or directory not found
```

You probably use a Subversion client that does not understand `svn:externals` directives (see <http://svnbook.red-bean.com/en/1.5/svn.advanced.externals.html>). Therefore, the checkout you did on SoCLib's repository is incomplete. Please, try with a "vanilla" subversion client instead.

OS version misdetection

Linux 64 bits is misdetected most of the time, in SystemC configuration section in `soclib/utils/conf/soclib.conf`, change

```
os = _platform(),
```

to

```
os = 'linux64',
```

Python version

```
Traceback (most recent call last):
  File
"/home/share/dcis_scme/CI/FAUST/PROJETS/SOCLIB/soclib/utils/lib/python/soclib-cc-main.py",
line 32, in ?
    from soclib_cc.builder.cxx import CxxCompile
  File
"/home/share/dcis_scme/CI/FAUST/PROJETS/SOCLIB/soclib/utils/lib/python/soclib_cc/builder/cxx.py"
line 29, in ?
    import action
  File
"/home/share/dcis_scme/CI/FAUST/PROJETS/SOCLIB/soclib/utils/lib/python/soclib_cc/builder/action.py"
line 79
    @classmethod
    ^
SyntaxError: invalid syntax
```

Please update to python-2.4

Utilities compilation going wrong

When I try to compile the Soclib tools I get the following error:

```
make[1]: Entering directory `/lip6/soclib/utils/src/pipe2fb'
make[1]: Nothing to be done for `Makefile'.
make[1]: Leaving directory `/lip6/soclib/utils/src/pipe2fb'
make[1]: Entering directory `/lip6/soclib/utils/src/tty'
gcc -c -o tty.o tty.c -Wall -O2
gcc -o soclib-tty tty.o -L/usr/X11R6/lib -lX11 -lXpm
make[1]: Leaving directory `/lip6/soclib/utils/src/tty'
make[1]: Entering directory `/lip6/soclib/utils/src/fb_screen'
cc `sdl-config --cflags` -Wall -O2 linux -c -o fb.o fb.c
gcc: linux: No such file or directory
make[1]: *** [fb.o] Error 1
make[1]: Leaving directory `/lip6/soclib/utils/src/fb_screen'
make: *** [all] Error 1
```

It looks like you have the TARGET_ARCH environment variable set. Make is doing some silly replacements when it is set. Unset it and try again:

```
$ unset TARGET_ARCH
$ make
```

BFD using symbols from libiberty

Lots of errors like

```
/usr/lib/gcc/x86_64-redhat-linux/3.4.6/../../../../lib64/libbfd.a(archures.o)(.text+0x3e0): In function `_sch_istable':
: undefined reference to `_sch_istable'
```

can be solved with

```
config.default.toolchain.libs.append('-liberty')
```

at the end of `~/.soclib/global.conf`

Cross-compilation issues

Wrong cross-compiler

In a bunch of GCC error messages, you see

```
as: unrecognized option `-EL'
```

Your mips gcc has been created wrongly, it's using your native (most probably x86) assembler.

This is most probably because you configured binutils and gcc with different `--prefix=` options.

Recreate your cross-compilation toolchain.

Simulation issues

Bus simulation and multiple drivers

Using PiBus under SystemC-2.2, you see

```
Error: (E115) sc_signal<T> cannot have more than one driver
signal `pibus_d' (sc_signal)
first driver `tty_wrapper.port_8' (sc_inout)
second driver `multiram_wrapper.port_8' (sc_inout)
In file: ../../../../src/sysc/communication/sc_signal.cpp:137
```

SystemC got picky about multiple drivers. This probably needs a fix in simulation models, using SystemC-2.1 is a workaround for now.