

# Autotools tips and tricks

## Compile a 64 bits library

That tip is aimed at solving the following error message, usually appearing when compiling some large piece of software on a 64 bits system:

```
$afile: relocation R_X86_64_32 against $afile can not be used when making
a shared object; recompile with -fPIC
```

where `$afile` is the path to some `.a` library file. The solution to this is to recompile the library containing `$afile` as a pure shared 64 bits library. I will assume the library is using the GNU autotools<sup>1</sup> (i.e. the `configure` script, `Make` etc...) as its build system

To recompile, `cd` into the library's build directory and run something like:

```
$ make distclean
$ CFLAGS='-m64 -fPIC' CC='gcc -m64 -fPIC' ./configure --enable-shared
```

You can of course add other options to `./configure` as you see fit.

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<sup>1</sup>[http://en.wikipedia.org/wiki/GNU\\_build\\_system](http://en.wikipedia.org/wiki/GNU_build_system)