

# B4 - Unix System Programming

B-PSU-400

## nm objdump

ELF exploration



2.2.2



# nm objdump

binary name: my\_nm & my\_objdump

language: C

compilation: via Makefile, including re, clean and fclean rules



- The totality of your source files, except all useless files (binary, temp files, obj files,...), must be included in your delivery.
- All the bonus files (including a potential specific Makefile) should be in a directory named *bonus*.
- Error messages have to be written on the error output, and the program should then exit with the 84 error code (0 if there is no error).



Your Makefile will contain: an nm rule in order to compile your nm project, an objdump rule in order to compile your objdump project, a rule all in order to call both rules.



Unauthorized Functions: `exec*`, `system` and any other function which could execute nm or objdump

The goal is to code an equivalent to the system commands **nm** without any options and **objdump** with `-fs` option.

You must handle a variable number of parameters.

The display produced **MUST** be the same as the one on your dump.

The programs must work with the following:

- relocatable files `.o` & `.a`
- shared files `.so`
- executable files

Other options *might* give you bonuses.

The *nm* and *objdump* manuals explain, in detail, how these commands work.



Some options, deemed too easy or pointless, may be ignored.



It is strongly recommended to try these functions out in order to understand how they work.



This project requires you to do research on the ELF format.  
Feel free to spend some time on it.