

Computer Labs: Project – Proposal

2º MIEIC

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November 11, 2014

Project Proposal

- ▶ Half to one page description of the functionalities desired, of the devices used and their role in the program
- ▶ Must be rewritten in class, if the instructor does not accept it
- ▶ The following devices are **mandatory** (max. score: 65%):
 - ▶ Video card
 - ▶ Past years's experience has shon that, in Minix, the graphical mode is easier than text mode
 - ▶ Timer
 - ▶ Keyboard

Project specification: Beginning of 9th lab class (2nd class of Lab 5)

- ▶ Refinement of the proposal

Project Examples

- ▶ Games (graphical mode and mouse)
- ▶ Two user games (text mode and serial port)
- ▶ Electronic calendar (text mode, keyboard, mouse, RTC and timer)
- ▶ Music composer/player (graphical mode, keyboard, mouse and timer)
- ▶ Text editor (text mode, keyboard, mouse, timer)
- ▶ Typing tutor (text mode, keyboard, mouse, timer)
- ▶ File transfer between PCs (text mode, keyboard, serial port)
- ▶ Chat between PCs (text mode, keyboard, serial port)

Final Project Grading

Difficulty Factor

- ▶ number and type of I/O devices
- ▶ features used of the I/O devices
- ▶ the techniques used
 - ▶ interrupt vs. polling
 - ▶ application-independent handlers
 - ▶ events (to handle asynchrony)
 - ▶ state machines
- ▶ use and extent of assembly programming
- ▶ computer graphics (not as relevant)
 - ▶ use of modes different from the ones in Labs 1 or 5
 - ▶ double buffering
 - ▶ animation
 - ▶ collision detection

Originality Factor