Our processor

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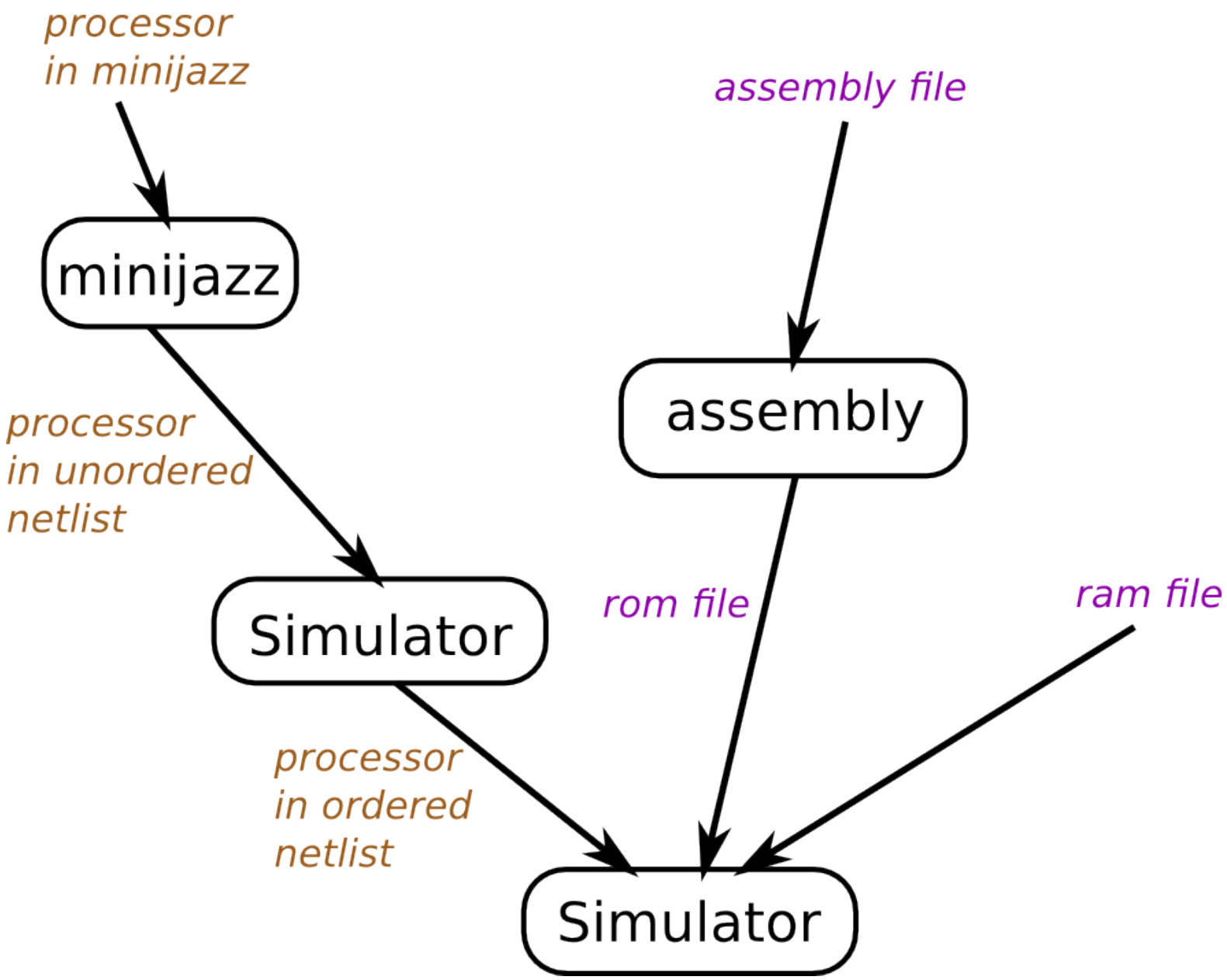
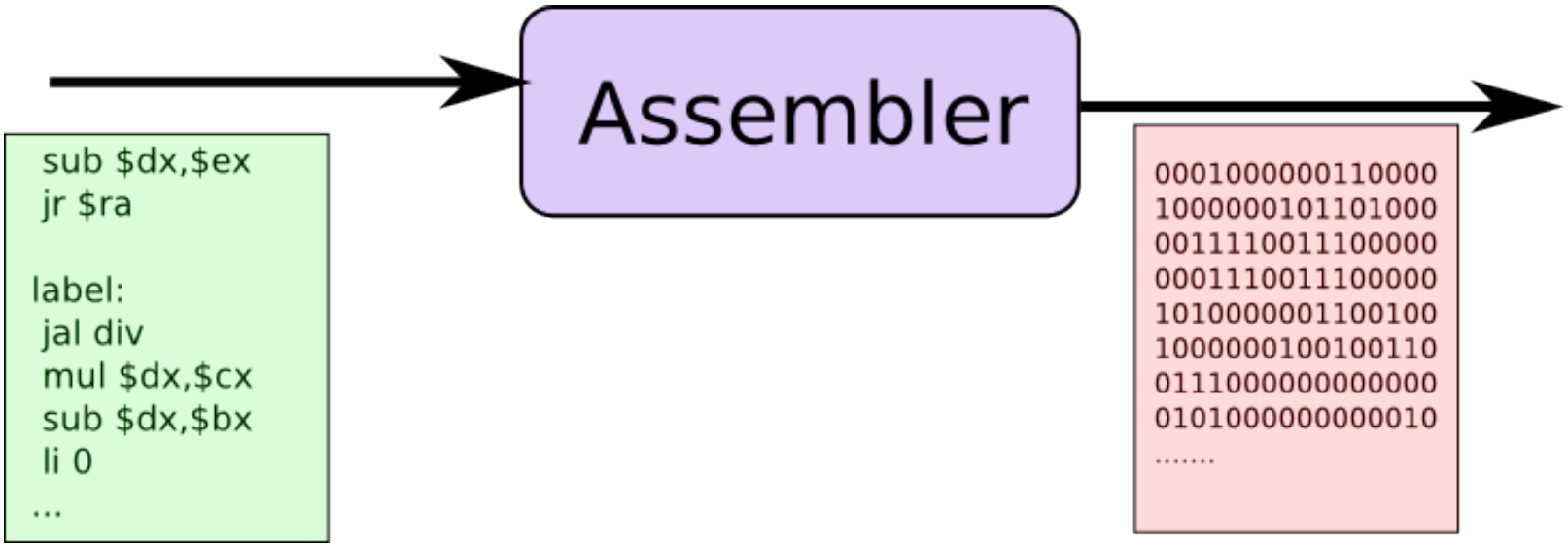
Mardi 22 janvier 2013

1. Processor details
   - Inner working
   - Simulator
   - Ram file
   - Assembler - rom file
   - Processor architecture
2. Teamwork
3. Demonstration


processor
in minijazz
assembly file
minijazz
assembly
processor
in unordered
netlist
Simulator
rom file
ram file
processor
in ordered
netlist
Simulator

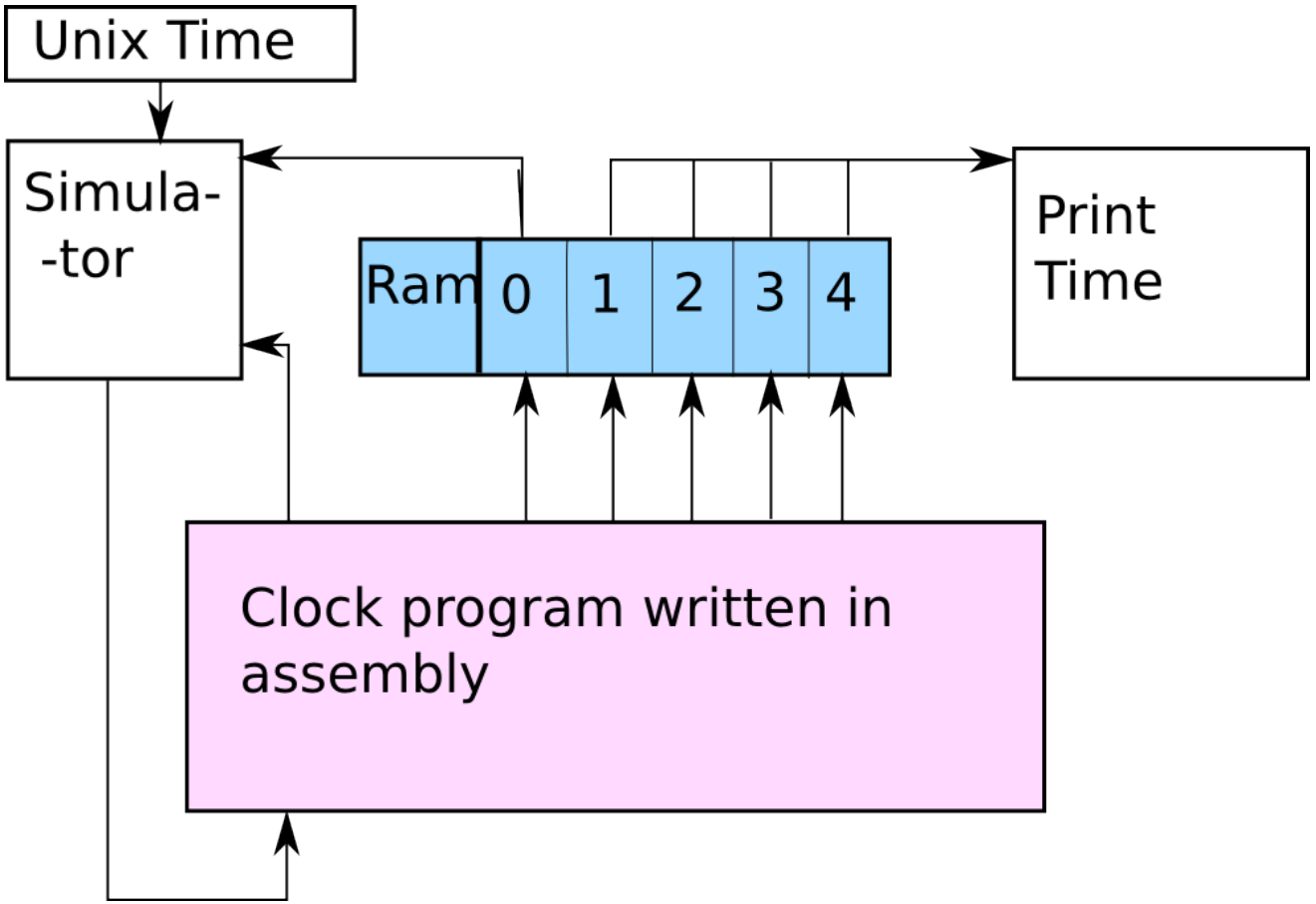
- a table for constants and variables
- two tables for the content of the RAM and the ROM
- the netlist equations are applied in a specific order.
- outputs values are printed.
- never stops or stops after a number of steps

256 8
0-4; 10 ;
00000000
00000000
00000000
00000000
00000000
00000000
00000000
.....

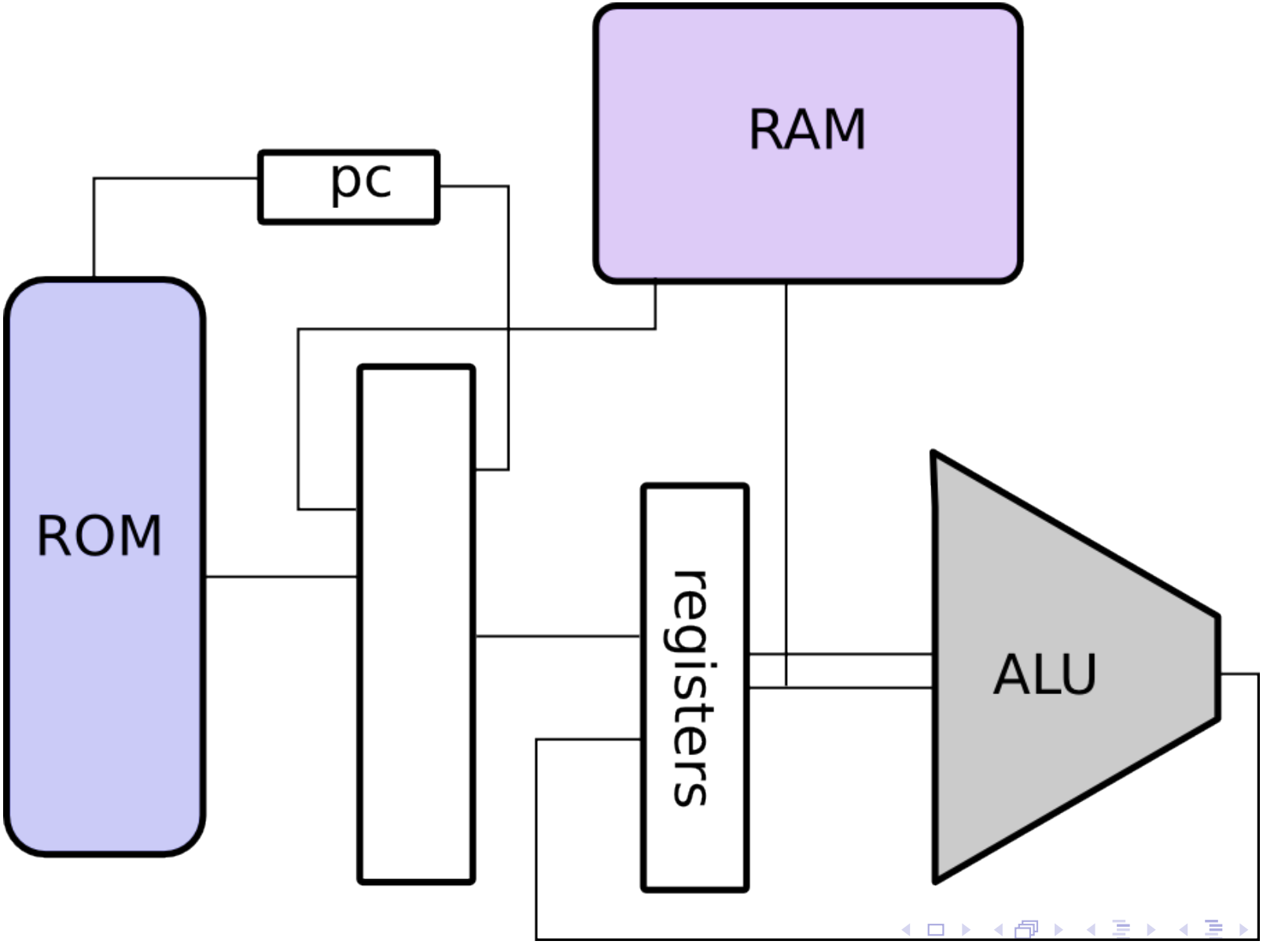

sub $dx,$ex
jr $ra
label:
jal div
mul $dx,$cx
sub $dx,$bx
li 0
...
Assembler
0001000000110000
1000000101101000
0011110011100000
0001110011100000
1010000001100100
1000000100100110
0111000000000000
0101000000000010
.....

256 16
0111000010000000
1011000001000000
0111000000000000
1011000001100000
0111000010000000
1011000010100000
0110000010001010
1000000010000100
0111000000111100
.....

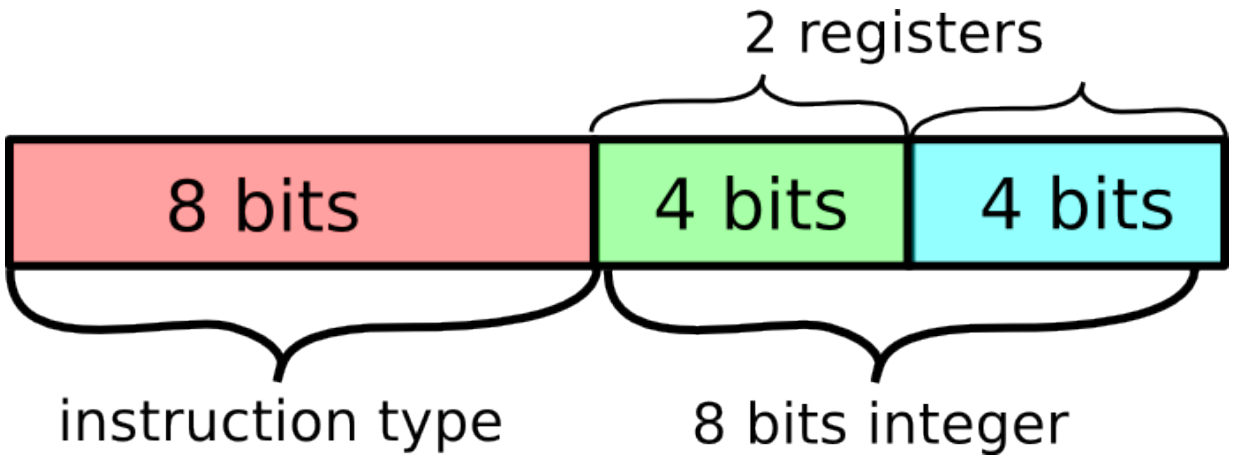
clock program



The processor



- instructions on 16 bits



- RAM and registers on 8 bits

Short description of our instructions

- Jumps
  - test instruction - two bits flag register
  - jne jal je jl jle jm jme jmp jne jr
- Memory interface
  - li lw sw
- Arithmetic
  - add sub mul not and or xor
  - move shl shr sra

Advantages

- Fast

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- Reliable

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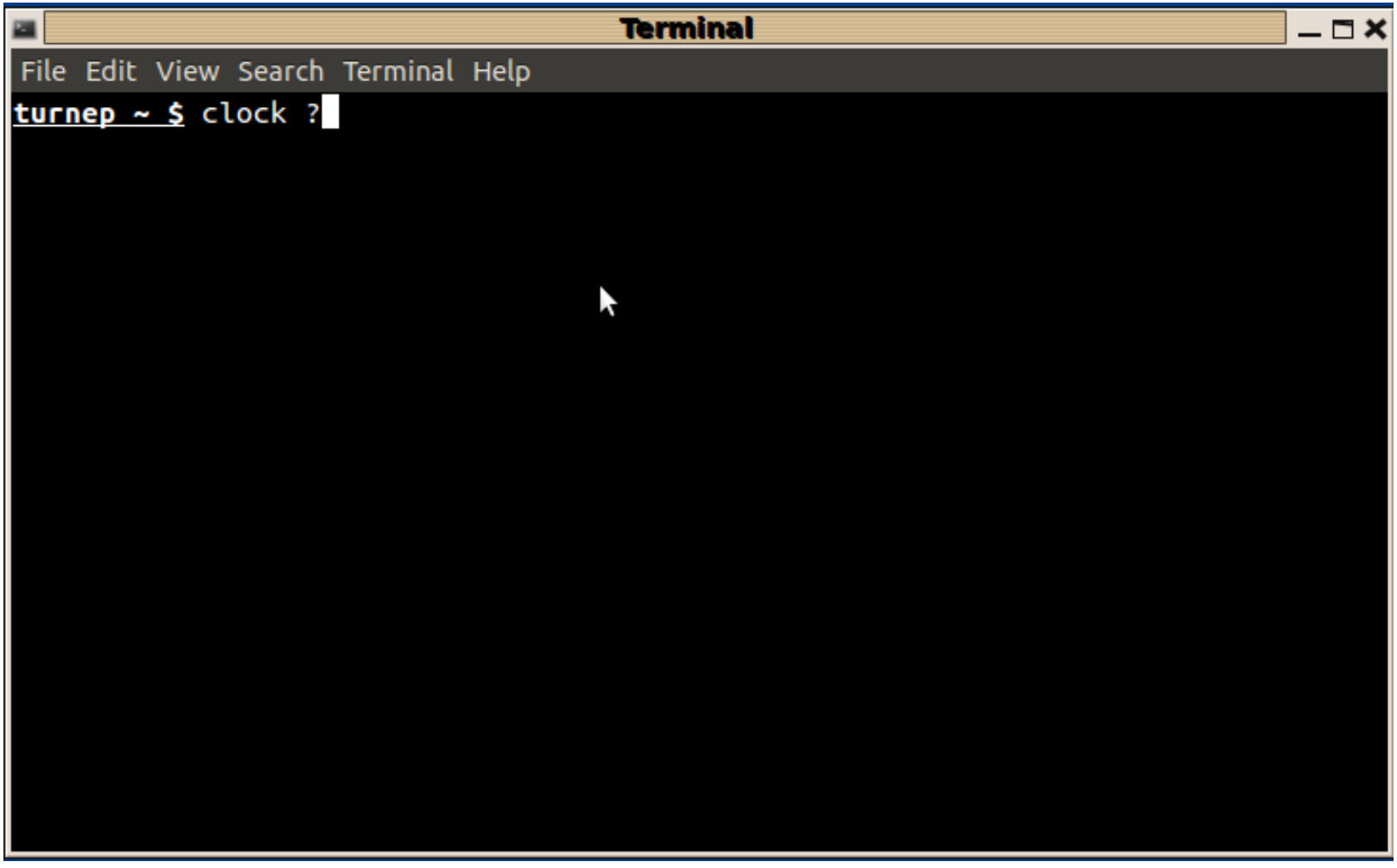
- Fast
- Reliable
- Adapted to embedded system
- does not contain unuseful functions
- cheap
- energy efficient

Work organization

- github
- mails
- two ways of working


Terminal
File Edit View Search Terminal Help
turnep ~ $ clock ?