



LUND
UNIVERSITY

VT100

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The VT100

- 1978: Serial terminal to a mainframe
- Today: A standard for terminal emulation
- "ANSI" escape codes
 - Output control
 - Formatting
 - The ECMA-48 standard



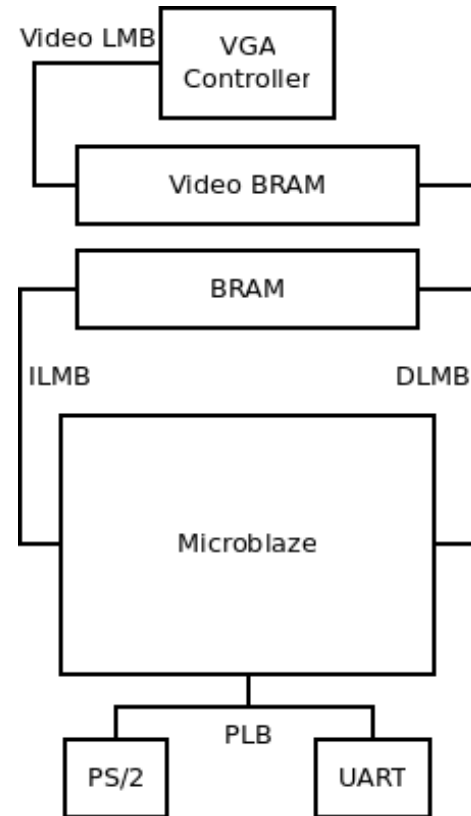
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Our VT100

- Partial ECMA-48 implementation
- Support driven by need
 - Basic terminal commands
 - ncurses (menuconfig)
- VGA output
- PS/2 keyboard input

Implementation overview

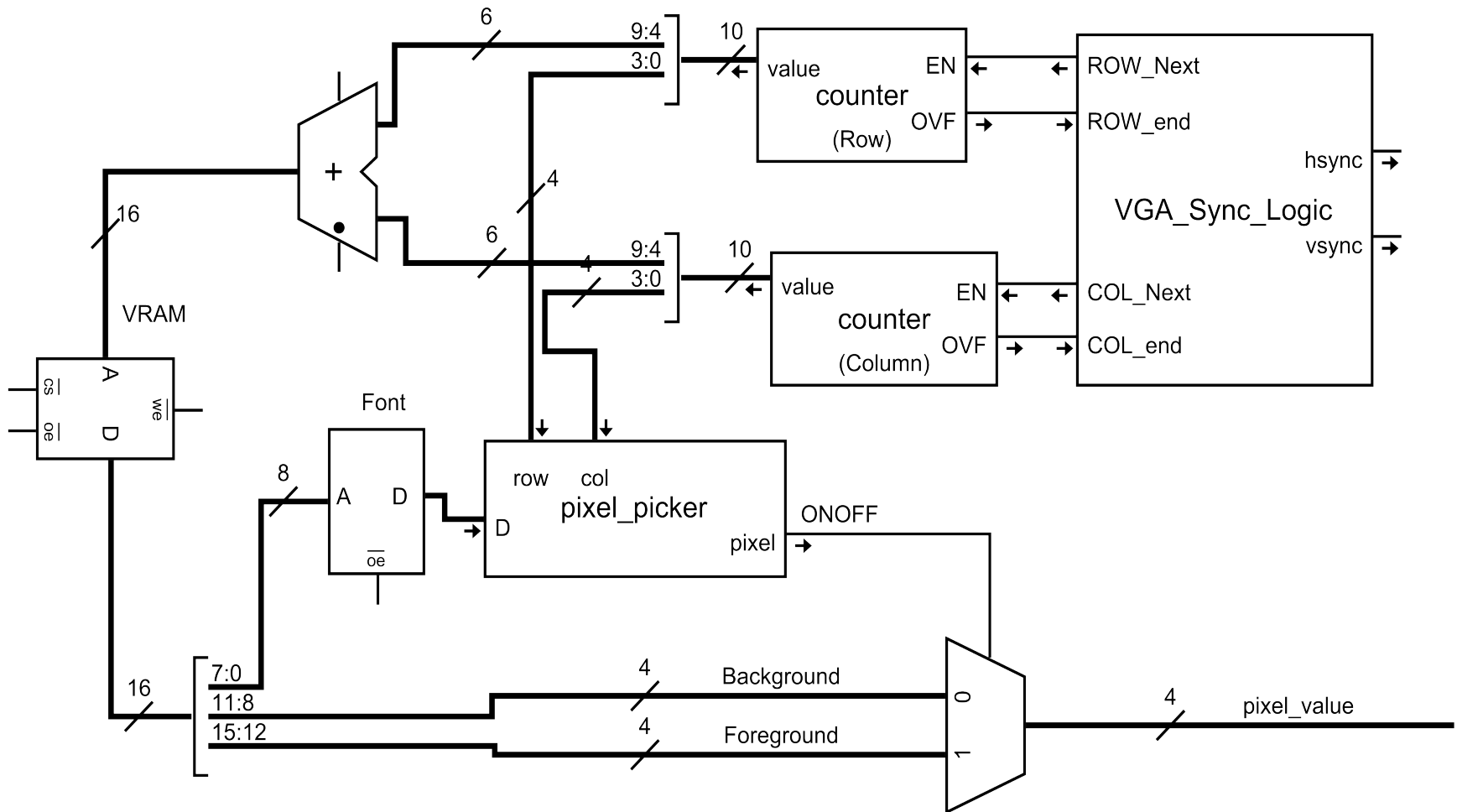
- PS/2 interface
- Serial port (UART)
- Character based VGA controller
 - Shared memory based
- MicroBlaze processor



VGA controller

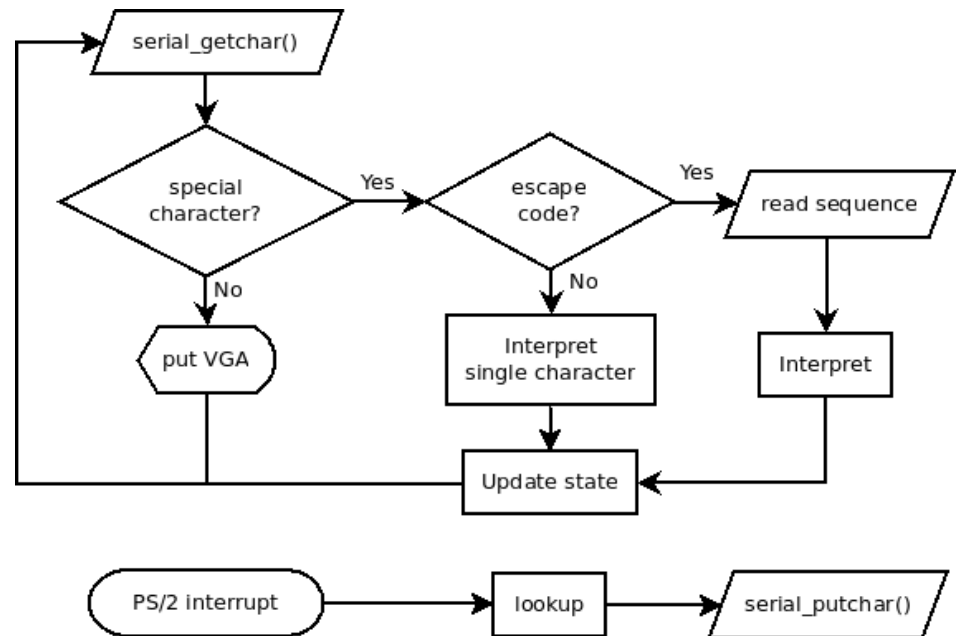
- Character based
- 80x25 characters => 640x400 pixels
- Intention: Row buffer in shared RAM for double buffer
- Color support
- Optional: VT100 Graphics mode (second font set)

VGA controller implementation



Software

- Escape code interpretation
- Tracks
 - Cursor position
 - Current output colors
- Translates PS/2 scancodes



Schedule

- Week 1
 - Basic VGA output
 - PS/2 controller
 - ECMA decoder in Java/C
- Week 2
 - VGA shared ram
 - ECMA on MicroBlaze
- Week 3
 - VGA & ECMA completion
- Week 4
 - Testing and bugfixes

Questions?