B^{1}CPU

Joseph Snow, David Palma, Delvin Jackson
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Group Members

- Joseph Snow (Internals, Design)
- David Palma (GUI, Virtual Machine)
- Delvin Jackson (Loader, Debug CLI)

BCPU Overview

- Implement BCPU ISA (instruction set architecture)
- Model execution of ASM instructions
- Visualize execution (registers and memory)

Asm Components

- Loader
- Virtual Machine
- Interface

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Loader
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Interface

Loader

- Parses ASM Code into machine code using regex
- Recognizes syntax and other errors
- Loads machine code into Virtual Machine memory

Virtual Machine

- Represents internal state of BCPU
- Models execution of machine code

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Interface

- Graphical User Interface
    - Recognizes Syntax errors in ASM files
    - Reports registers and memory contents
    - Tracks Special Registers (PC, input/output registers)
    - Manageable execution
- Debug CLI

References

- Trello (project management)
  https://trello.com/
- bitset (gem)
  https://github.com/tyler/bitset
- wxWidgets (GUI framework)
  http://www.wxwidgets.org/
  http://wxruby.rubyforge.org/doc/

Questions

Thank you for your attention.