

B¹CPU

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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

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

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

- Github (code repository hosting)
<https://github.com/>
- Trello (project management)
<https://trello.com/>
- Asm (project code)
<https://github.com/mistofvongola/asm>
- 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.