



SNO

SUPER NINTENDO ONLINE

Milestone 1

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Faculty Sponsor: Dr. William H. Allen

Milestone 1

	% Complete	Michael K.	Keith J.	Eric W.
Requirements Document	100%	33%	33%	34%
Design Document	100%	33%	33%	34%
Test Plan	100%	33%	33%	34%

Requirements Document

- Goal: SNES games in browser
- Stakeholders: Ourselves and Dr. Allen
- Users
 - Developers
 - Game Enthusiasts
 - Casual Gamer

Requirements Document

- Functional
 - Load ROMs from Server or Client
 - Save / Load game save data
 - Input
- Usability
 - Simple Interface
 - Configuration options

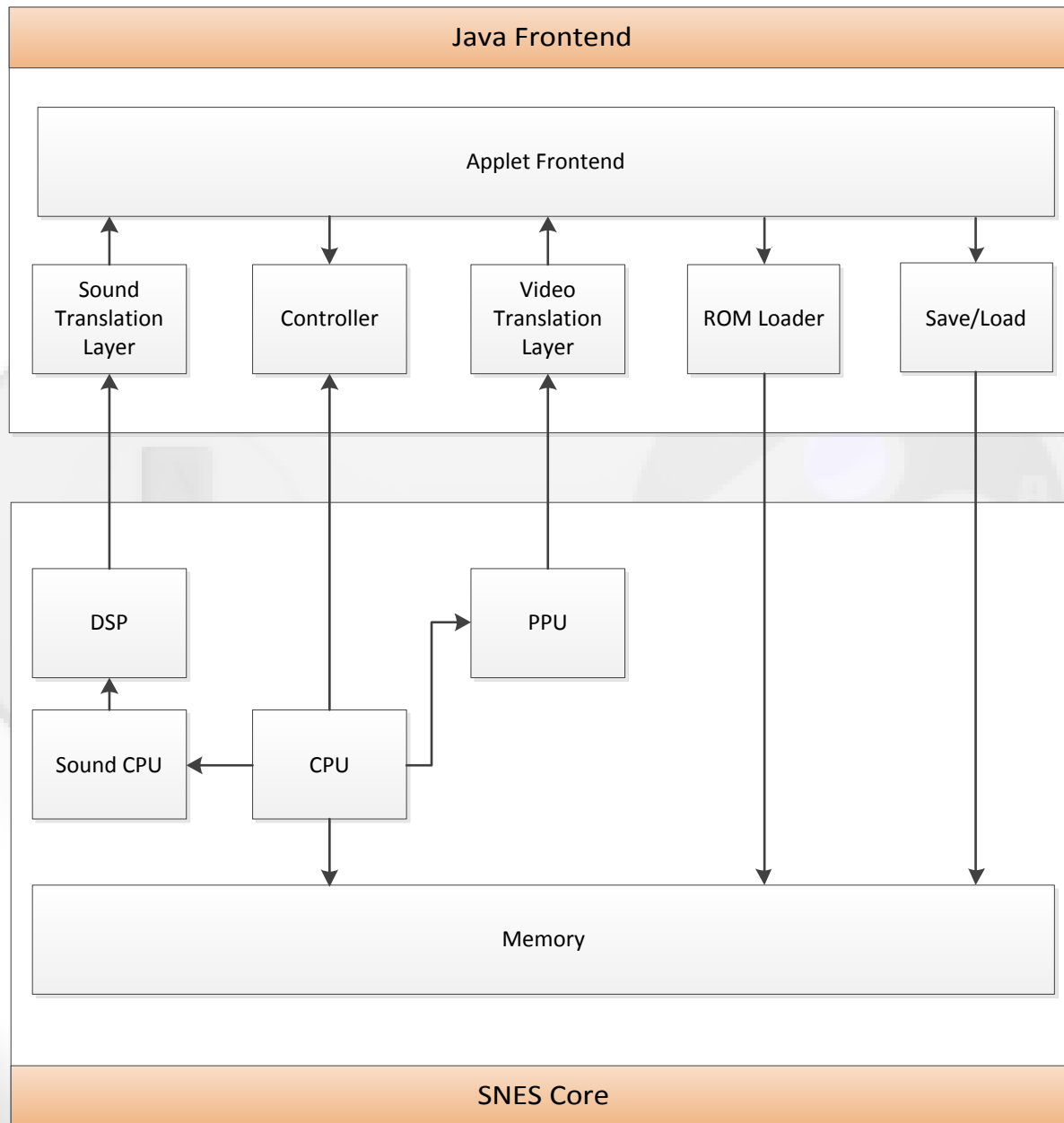
Requirements Document

- Performance
 - Smooth visuals and input
- Look and Feel
 - Java Applet
 - Customizable size
- Legal
 - Does not distribute ROMs

What we know about the SNES

- 255 CPU Opcodes (+1 Reserved)
- 24-bit Memory Addressing, 16-bit Registers
- Separate Sound CPU (8-bit SPC-700) w/ DSP
- PPU generates graphics from VRAM
- Memory layouts: LoROM and HiROM
- Cartridge layout / header info
- > 30 megabytes of documentation (> 700 files)

Design Document – System Overview



Design Document – Memory Map

Bank	SlowROM (2.68 Mhz)										FastROM (2.68 Mhz or 3.58 Mhz) (Mirrored)									
	00-0F	10-1F	20-2F	30-3F	40-4F	50-5F	60-6F	70-7D	7E	7F	80-8F	90-9F	A0-AF	B0-BF	C0-CF	D0-DF	E0-EF	F0-FD	FE	FF
\$8000	ROM Chunk (32k per bank)								Extended RAM (32k)	Extended RAM (64k)	ROM Chunk (32k per bank)'								ROM Chunk (32k per bank)	
	Expansion (8k, Mirrored)							SRAM Bank 70 (32k)	High RAM (24k)		Expansion (8k, Mirrored)'									
\$2000	Hardware Registers (16k, Mirrored)										Hardware Registers (16k, Mirrored)'									
\$0000	WRAM (8k, Mirrored)								WRAM (8k)'		WRAM (8k, Mirrored)'									

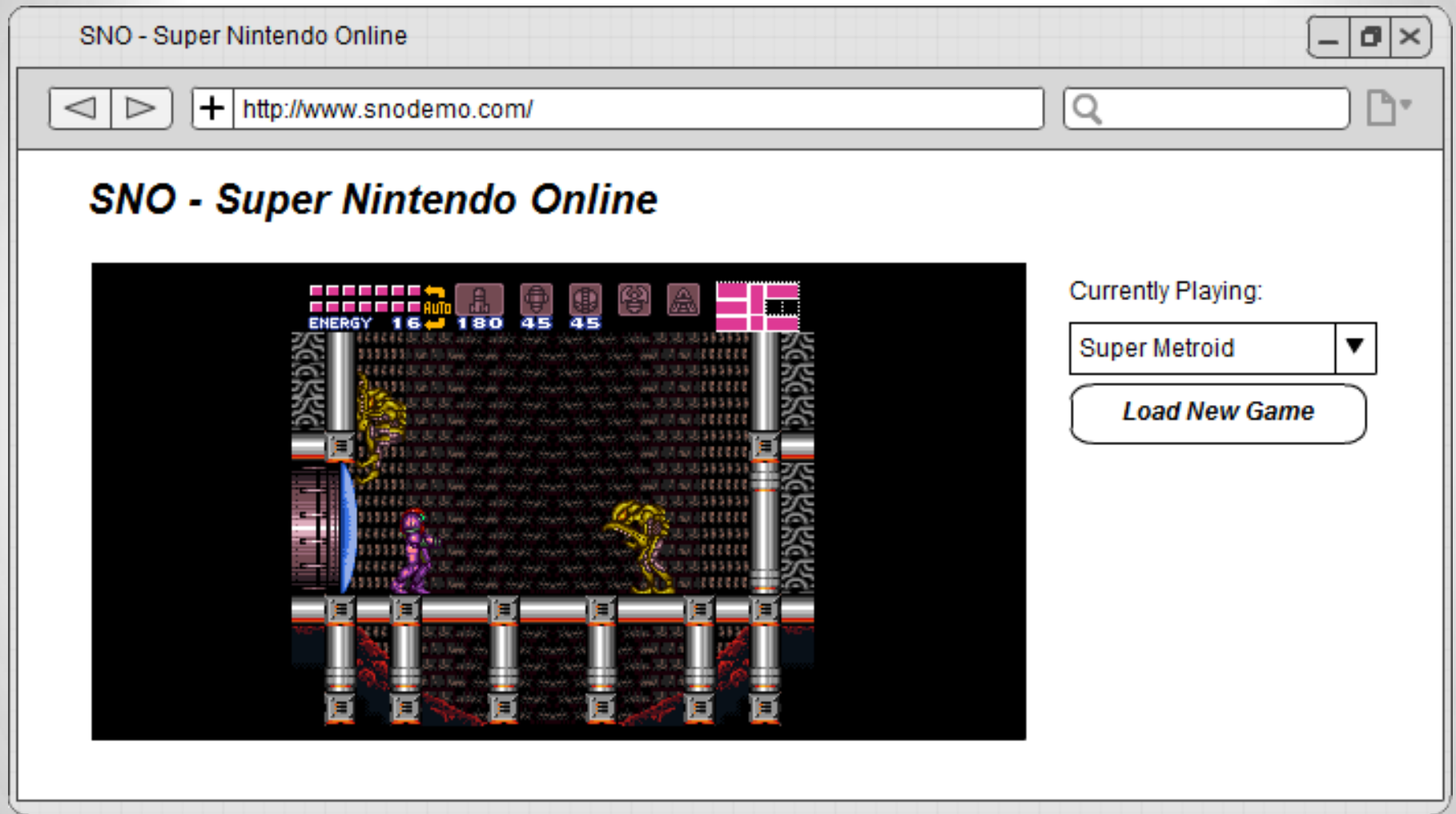
Test Plan

- Play testing using ROMs
- Unit testing using Junit
 - Automated, easy to track
 - Allows refactoring with no fear
 - EMMA for Code Coverage
- Scenario tests for each requirement
- FindBugs to analyze source code

Milestone 2

	Michael K.	Keith J.	Eric W.
Partial CPU Emulation	33%	33%	34%
Basic Applet Frontend	33%	33%	34%
Read ROM from Client	33%	33%	34%
Memory implementation	33%	33%	34%

Questions?



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