SNO
SUPER NINTENDO ONLINE

MILESTONE 5 EVALUATION

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Current Milestone Progress

Task	Completion	Michael K.	Keith J.	Eric W.	Todo
Improve Video	100%	33%	33%	34%	
Compatibility Fixes	100%	33%	33%	34%	
Performance	100%	33%	33%	34%	
User Experience Improvements	100%	33%	33%	34%	
Showcase Poster	100%	33%	33%	34%	

Current Task Summaries

- **Improve Video:** The entire graphics rendering process was rewritten to process the screen per-pixel rather than rendering an entire scanline at once. This brought a marked improvement in speed, and a huge improvement in graphics accuracy. Most graphical bugs that remain are thought to be related to components outside of video.

- **Compatibility Fixes:** Several general features of the SNES have been implemented or improved:
    - **IRQ:** IRQs have been implemented, but there are a few remaining bugs in other components that prevent them from being called in Super Mario World, the primary game we use for testing.
    - **Miscellaneous Fixes:** Several small bugs have been fixed to such a point that we can play Super Mario World with a few graphical errors and one game-stopping bug; this bug can be worked around by using a GUI button to reset the APU, making the entire game playable, although not perfect.

- **Performance:** The rewrite of the graphics renderer has greatly improved speed, as well as an auto-frameskip option that renders one out of every five frames. With the auto-frameskip enabled, Super Mario World is considered playable.

- **User Experience Improvements:** Now that we have an idea of the options that SNO provides, we have removed unavailable options from the GUI and added in configuration options that do exist, such as re-mapping the key layout.

- **Showcase Poster:** We created and submitted a showcase poster that describes SNO's functionality, the challenges we faced, and provides a link for future students to download the SNO source code for learning or improvement.

Next Milestone Plan

- **Performance:** Performance will be a priority for the next milestone. There are possible areas of improvement, including graphics caching, using more threads, and using profiling to identify slow areas of code.
- **Polish:** Polish includes small bug fixes such as game compatibility fixes, graphics errors (such as the white bars that flash during certain loading sequences), and other factors that make the application unstable.
- **Demo Video:** We will create a demo video showcasing SNO and its features.
- **User Manual:** We will also create a user manual as a wiki page on our project's Github page. We will focus on using SNO to play games, and embedding SNO in a web page.

Milestone 6 Task Matrix

Task	Michael K.	Keith J.	Eric W.
Performance	33%	34%	33%
Polish	33%	34%	33%
Demo Video	33%	34%	33%
User Manual	33%	34%	33%

Sponsor Feedback

- **Improve Video:**

- **Compatibility Fixes:**

- **Performance:**

- **User Experience Improvements:**

- **Showcase Poster:**

Signature: _____ Date: _____

SNO: Super Nintendo Online
Milestone 5 Evaluation

Sponsor: Please detach this page and return to Dr. Chan (HC 322).

For each team member, circle a score between 0 and 10, or write in your own score in the last box.

Michael K.	0	1	2	3	4	5	6	7	8	9	10	
Keith J.	0	1	2	3	4	5	6	7	8	9	10	
Eric W.	0	1	2	3	4	5	6	7	8	9	10	

Signature: _____ Date: _____