

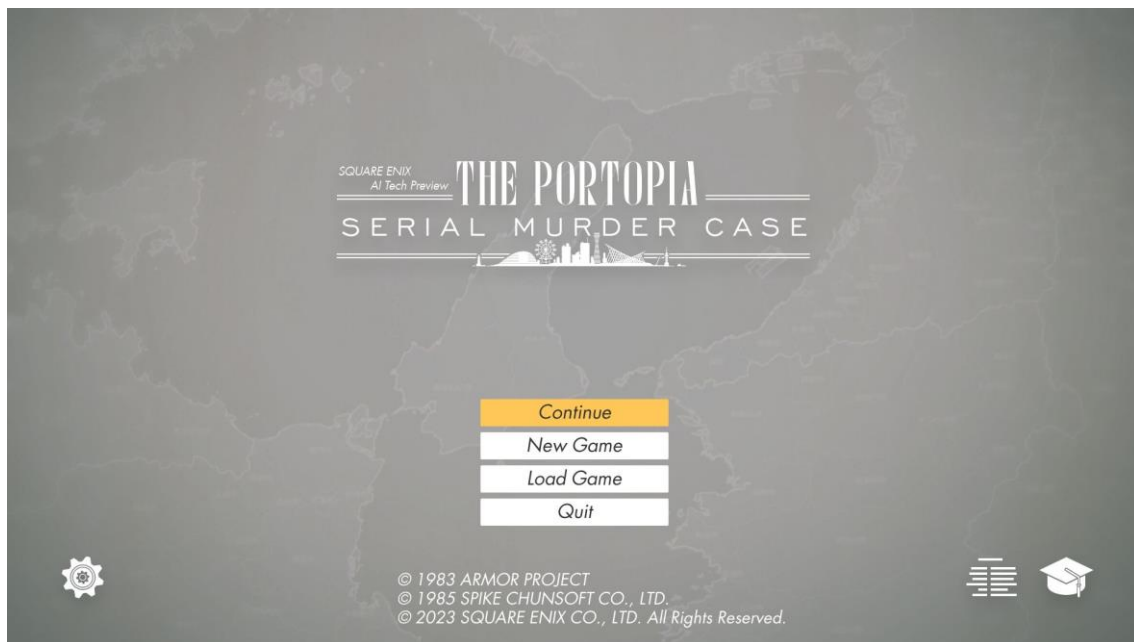
Introduction

About This Software

This software is an educational demonstration of Natural Language Processing (NLP), an AI technology, as applied to the adventure game “The Portopia Serial Murder Case” (first published in Japan in 1983). At the time of the game’s original release, most adventure games were played using a “command input” system, where the player was asked to type in text to decide the actions of their character. Free text input systems like these allowed players to feel a great deal of freedom. However, they did come with one common source of frustration: players knowing what action they wanted to perform but being unable to do so because they could not find the right wording. This problem was caused by the limitations of PC performance and NLP technology of the time.

40 years have passed since then, and PC performance has drastically improved, as have the capabilities of NLP technology. Using “The Portopia Serial Murder Case” as a test case, we’d like to show you the capabilities of modern NLP and the impact it can have on adventure games, as well as deepen your understanding of NLP technologies.

Title Screen



Open the config menu.



Show credits and rights information.



Learn more about NLP technology and the software used in this preview.

Config Menu



The "Voice Input" setting changes the status and accuracy level of the voice input system.

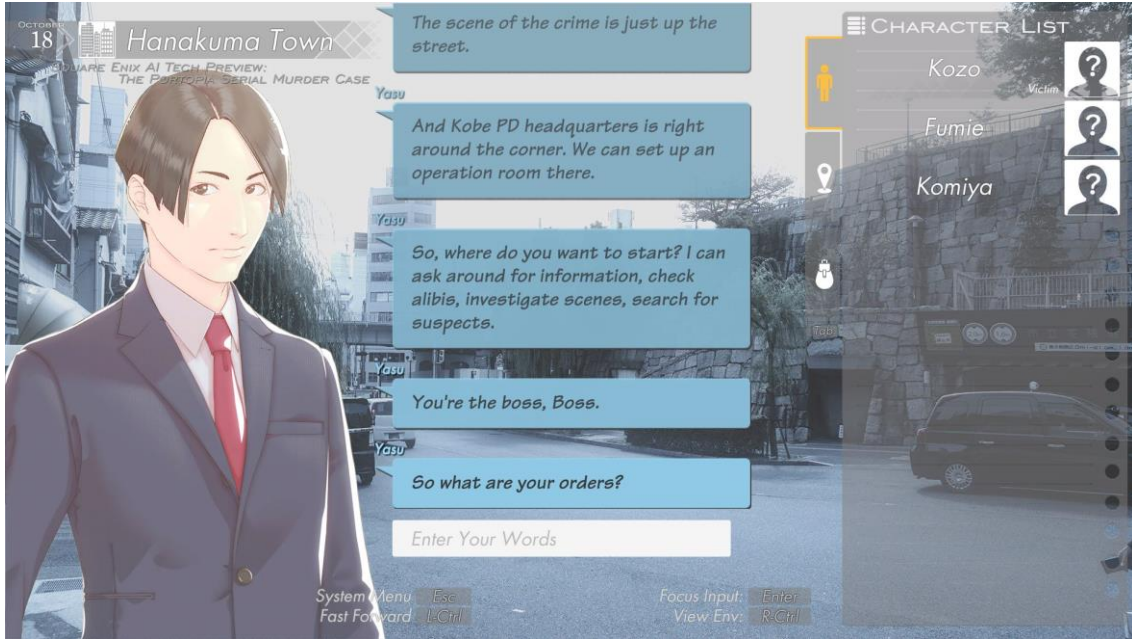
- Disabled: Disable voice input.
- Low Quality: Use low-overhead, low-accuracy system.
- Mid Quality: Use balanced, medium-accuracy system.
- High Quality: Use high-speed, high-accuracy system.

A CUDA-capable GPU is required to enable voice input.

Higher quality settings increase the accuracy of speech recognition but also increase the amount of VRAM required. A warning message will appear if insufficient VRAM is available. Please note that starting a new game or loading a saved game with an unsupported voice input model selected may result in error messages displaying and the game failing to load properly.

Gameplay

Speaking to Yasu



Enter text to give instructions to Yasu and progress through the story.

Please note that unlike other text adventures, in The Portopia Serial Murder Case you are always talking to your junior partner, Yasu, so instructions should be addressed to him. Try asking him to do things like "Ask around" or "Find out more about Kozo."

If voice input is enabled in the config menu, hold down the right Alt key or the microphone

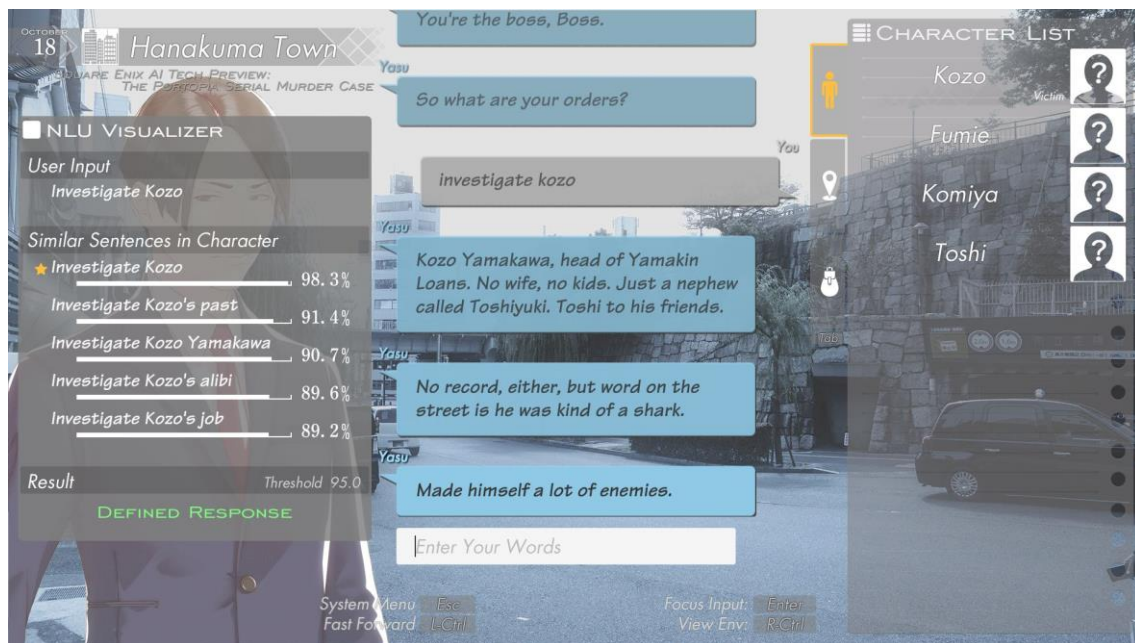


button while speaking. The system will not detect your voice if the button is not pressed. It may take a few moments for the voice recognition system to activate when you use it for the first time.

NLU Visualizer

Press the Pause key to display the NLU Visualizer, which shows a breakdown of the NLU's attempt to match the text that you entered to the list of instructions that trigger predefined responses.

- User Input: The text you entered.
- Similar Sentences: A list of the top five closest matches to the text you entered among those instructions that can trigger progression.
- Threshold: The threshold for success or failure in matching the input text. The lower this value, the more likely the system is to find a match among the predefined instructions, but it is also more likely to find false matches and answer a different question to that intended.
- Result: Shows whether or not a sufficiently similar match was found in the list of predefined instructions.



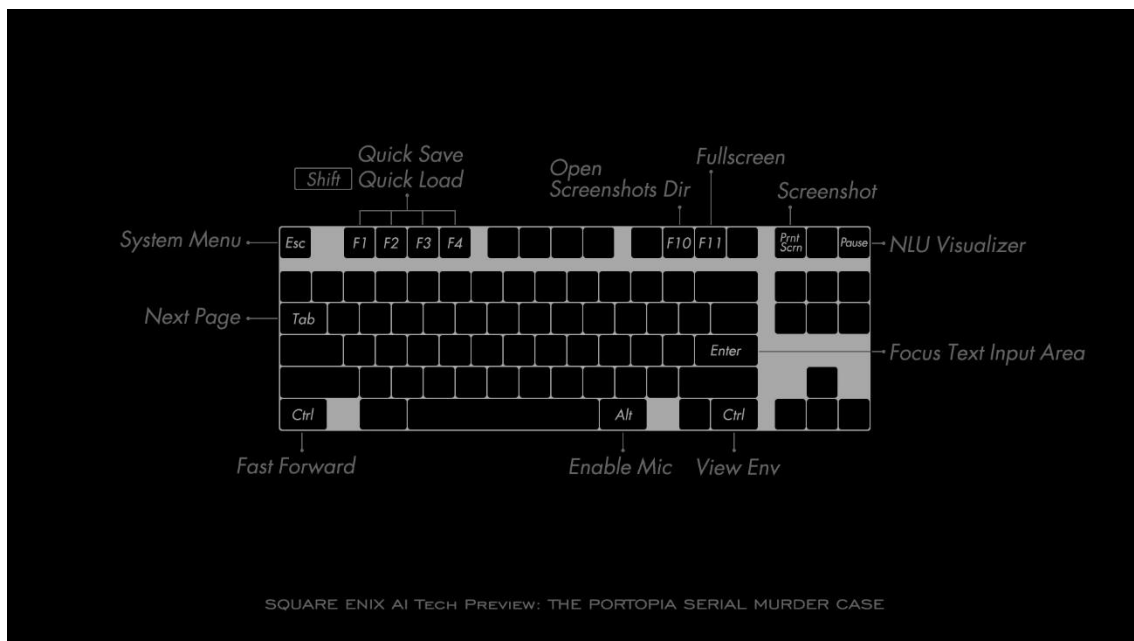
Other Controls

Use the following keys during normal gameplay to activate the following controls.

- Esc: Open the system menu.
- Left Ctrl: Speed up how quickly the conversation log is updated.
- Enter: Focus on the text input field.
- Right Ctrl: Hide the main UI so that you can take a closer look at the background image.

List of Keyboard Shortcuts

Press the Shift key while the system menu is open to show the keyboard shortcuts.



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