**EECS 481 Software Engineering Use Case and Sequence Diagrams** 

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## Use case diagram

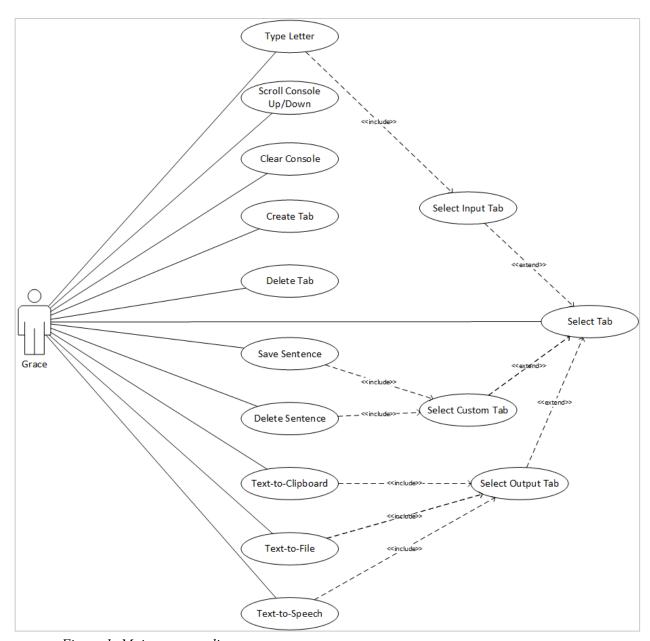


Figure 1: Main use case diagram

## Use case description

The application is directed towards a universal user, whether Grace, those with disabilities, or others. Any user has the same functional requirements and features. The user is able to configure the eye tracking and select characters on the querty or T-9 interface organized by tabs. Additionally, the user can adjust selection time and idle timeout. More details are listed in the requirements definition section.

When a user launches the SET Keyboard application, they will see a GUI consisting of the text console, scroll buttons, default QWERTY keyboard, and tabs. Users will have the option to switch to different input, output, and custom tabs. The input tabs are the QWERTY and T9 keyboards. The output tab will have buttons to output the console text to speech, text, or clipboard. The custom tabs are tabs that the user can create to store blocks of text for later use.

When a user hovers over a letter button in one of the input tabs for a certain amount of time, it will be selected and appended to the text console. Word completion predictions will appear below the console and the user will be able to select a word if he/she chooses to. When a word is completed, predictions for the following word will appear below the console. Again, the user is able to select a word to be appended to text console.

## Sequence diagrams

The figures below are the sequence diagrams representing multiple interactions.

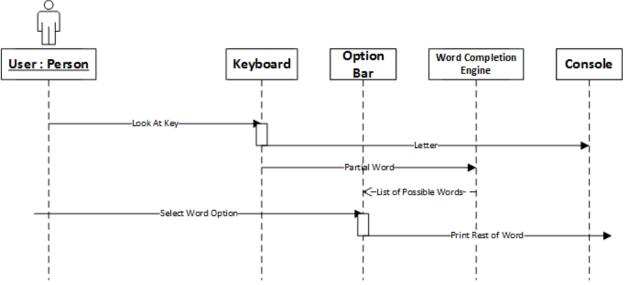


Figure 2: "Type letter" sequence diagram

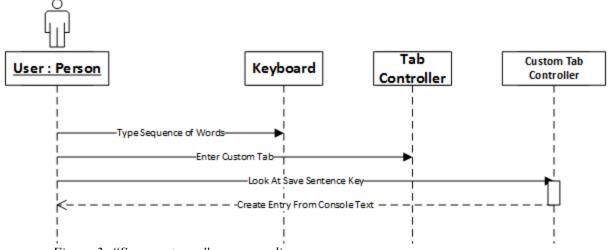


Figure 3: "Save sentence" sequence diagram

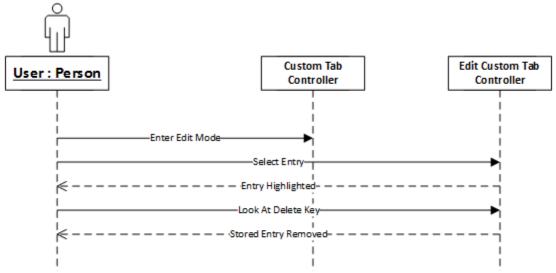


Figure 4: "Delete stored sentence" sequence diagram

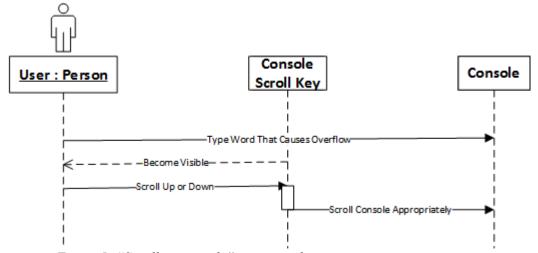


Figure 5: "Scrolling console" sequence diagram

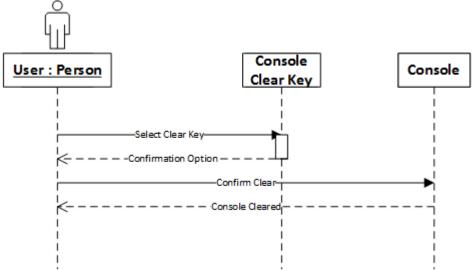


Figure 6: "Clear console" sequence diagram

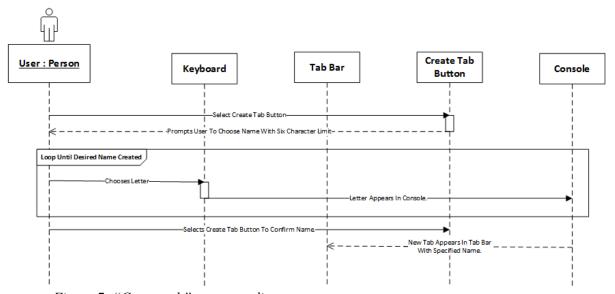


Figure 7: "Create tab" sequence diagram

alt:QWERTY Keyboard Selected

Figure 8: "Select tab" sequence diagram

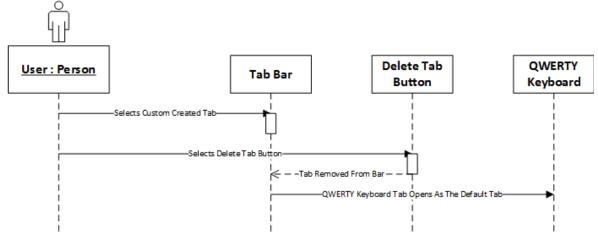


Figure 9: "Delete tab" sequence diagram

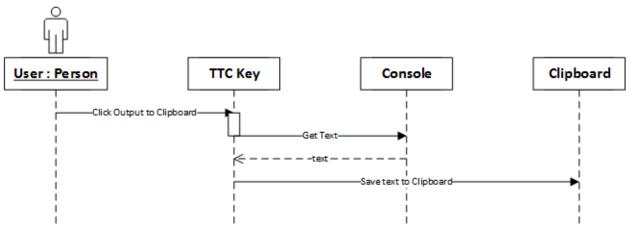


Figure 10: "Text to clipboard" sequence diagram

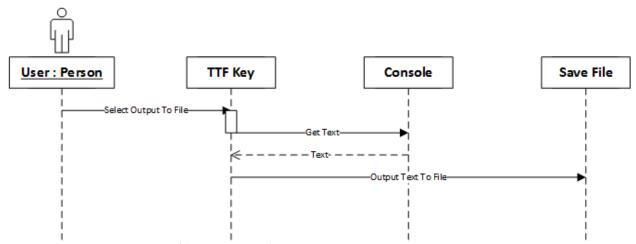


Figure 11: "Text to file" sequence diagram

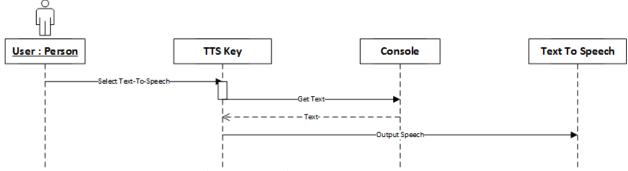


Figure 12: "Text to speech" sequence diagram

## References

[1]Microsoft Vizio 2013. Microsoft.<a href="http://office.microsoft.com/en-us/visio/">http://office.microsoft.com/en-us/visio/</a>