

Integration Testing

Start Module	Final Module	Purpose	Starting State	Final Status
Speech-To-Text	Main	Test that the text-to-speech engine can correctly feed data to main.	Empty input buffer queue, Tester is speaking.	Spoken words have been added to the inputBuffer of the Main Engine. Order of strings in the inputBuffer matches the order in which the words are spoken.
Main	Grammar	Verify that Main is passing tokens correctly to Grammar Engine.	Input buffer has tokens. Current token pointer is not pointing to the head of the queue.	Strings are added to the Grammar Engine's inputBuffer. Strings match the output from Grammar. Order of strings in the Grammar Engine's inputBuffer matches that of the Main Engine's inputBuffer.
Grammar	Database	Verify that the database lookup is working correctly.	inputBuffer has a list strings that correspond to valid, single word signs.	Grammar outputs a correct list of tokens with IDs corresponding to the appropriate signs.
Grammar	Database	Verify that the database lookup is working correctly.	inputBuffer is filled with several invalid strings.	Grammar outputs a correct list of tokens with the strings, and IDs equal to -1.
Grammar	Database	Verify that the database lookup is working for multiple-word-signs	inputBuffer contains multiple strings which can be combined into a single sign.	Grammar outputs a single sign with the ID corresponding to the multiple word phrase.
Grammar	Output	Verify that Grammar is correctly passing tokens to the Output Engine	The Grammar Engine's inputBuffer contains several string, some of which correspond to valid tokens, some of which do not.	The output engine's Vector::Words contains in the correct order, the series of MyWord tokens with strings corresponding to the Grammar Engine's inputbuffer, and ID's corresponding to the correct Token.
Output	Database	Verify that the database lookup is working correctly.	Vector::Words contains a single token which correspond to a valid media files.	The database correctly returns a pointers to that media file.
Output	Database	Verify that the database lookup is working correctly.	Vector::Words contains al token, which does not correspond to a valid media.	The database returns no hits.
Output/FingerSpell	Database	Verify that the database lookup is working correctly.	FingerSpell is called against a string.	A series of tokens is added to the head of Vector::MyWords, corresponding to the characters of the original string, in the same order as that string.

Output	Output/FingerSpell	Verify that the Output Engine is correctly identifying and fingerspelling words that are not in the output database.	Vector::Words contains a single token, which does not correspond to a valid media.	A series of tokens is added to the head of Vector::MyWords, corresponding to the characters of the original string, in the same order as that string.
Output	Output/MediaSubSystem	Verify that the MediaSubSystem is receiving the list of media files to display.	Vector::Words contains a single token which correspond to a valid media file.	The media subsystem displays the media file which corresponds to the token.
MainGui	Main Engine	Verify that the MainGui is passing the correct mode to the Main Engine. Verify that Main is correctly passing the mode type to Mode.	User Clicks a button corresponding to a mode	The correct windows display. If applicable, Main launches the text-to-speech application. Main waits for input.