

Manual Tests QTextToSpeech

For all test cases: Launch `hello_speak` example and select flite engine.

All console output begins with `qt.speech.tts.flite` which is skipped in the test descriptions.

| Test case | Subject | Input | Expected result |
|--------------------|--|---|---|
| Provisioning | Check flite installation | Launch hello_speak and select flite engine | At least one voices available in drop down menu => PASSED. Out of the box compilation has the following voices: <ul style="list-style-type: none"> • kal16 – male – adult • slt – male – adult • kal – male – adult • awb – male – adult • rms – male – adult |
| Utterance duration | Correct calculation of audio length with a given text | <ul style="list-style-type: none"> • Paste text: “This is a sample to calculate the duration of an utterance.” • Select voice kal16 • Click “Speak” | Voice “kal16” not available => SKIP Application console output contains: qt.speech.tts.flite: processText() end 3.18913 Seconds => PASSED |
| State transitions | Check state transitions depending on successful playback | <ul style="list-style-type: none"> • Paste text “This is to test state transition.” • Select any voice • Click “Speak” | Expected output: processText() end x Seconds processText() begin Audio sink state transition StoppedState IdleState Audio sink state transition IdleState ActiveState last data chunk written processText() end x Seconds Audio sink state transition ActiveState IdleState |
| Pause/Resume | Check pause and resume behavior | <ul style="list-style-type: none"> • Paste text “This is a very long text in order to test, if flite stops on pause. It also tests if it continues on resume. Pause and resume can be repeated.” • Click “Speak” • Click “Pause” • Click “Resume” • Click “Pause” • Click “Resume” • Click “Pause” • Click “Stop” | Playback begins with Audio sink state transition StoppedState IdleState After Pause (playback stops): Audio sink state transition ActiveState SuspendedState After Resume (playback continues): Audio sink state transition SuspendedState ActiveState After Stop (playback remains stopped): Audio sink state transition SuspendedState StoppedState |

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| Pitch | Check pitch shift | <ul style="list-style-type: none"> • Paste text “This is a pitch test.” • Select voice “kal16” • Click “Speak” • Move “Pitch” to 100% • Click “Speak” | Voice “kal16” does not exist => SKIP Pitch increases to a “higher” voice on second “Speak” => PASS |
| Error | Provoke synthesizing error | <ul style="list-style-type: none"> • Paste arbitrary text • Select voice “awb” • Move “Pitch” to 100% • Click “Speak” | Voice “AWB” does not exist => SKIP After Stop (playback remains stopped): Error QTextToSpeech::ErrorReason::Playback "Audio streaming error." => PASS |
| Volume | Check volume parameter | <ul style="list-style-type: none"> • Paste text “This is a volume test.” • Select arbitrary voice • Click “Speak” • Move “Volume” to 100& • Click “Speak” | Volume increases from first to second “Speak” => PASS |
| Rate | Check rate parameter | <ul style="list-style-type: none"> • Paste text “This is a rate test.” • Select arbitrary voice • Click “Speak” • Move “Rate” to 100& • Click “Speak” | Talking speed increases from first to second “Speak” => PASS |