101 Solutions

Integration Testing Documentation

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1 Introduction

This document provides an outline of the approach followed when doing integration testing. The actual system components are tested and will be tested across different levels of granularity.

2 What we are using

We are making use of QT unit tests which allows for a cross platform unit testing. This allows us to test the application for both windows and linux.

3 Contract testing

Within unit testing that are done there are testing done to determine if contracts are met.

- If preconditions are met
 - Service is provided
 - All post conditions hold true after service was provided
- Any other units not directly tested will be mocked in order to simulate the unit requesting the service

4 Unit Testing AppMan

4.1 Communication

4.2 Management Class

- Signal Testing: Signals are tested in order to determine whether they exibit their required behavior when the management class should emit them.
 - A slave machine is displayed on the widgets if another machine successfully connected
 - The slave that disconnects is removed off the window and only that machine which disconnected, not the others
 - The slave that disconnects is removed off the window
 - The application displays the percentage that a build is synched on the slave machine

5 Unit Testing AppManClient

5.1 Communication

5.2 Management Class

- Signal Testing: Signals are tested in order to determine whether they exibit their required behavior when the management class should emit them.
 - The disconnect button shown if the management class emits that it has successfully connected