

rAppla Master Test Plan

Version 1.0

Revision History

Date	Version	Description	Author
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Master Test Plan

Introduction

Purpose

The purpose of the Master Test Plan is to gather all of the information necessary to plan and control the test effort for a given iteration. It describes the approach to testing the software, and is the top-level plan generated and used by managers to direct the test effort.

This *Test Plan* for the rAppla App supports the following objectives:

- Identifies the required resources
- Outlines the testing approach that will be used
- Identifies the items that should be targeted by the tests

Scope

- User-Interface Test
- State-Based Test (synchronisation)

Intended Audience

- Project Members
- People interested in Android-Testing

Evaluation Mission and Test Motivation

Background

- Ensure a flawlessly working User-Interface
- Ensure a flawlessly working Update Process

Evaluation Mission

- Verify specifications
- Finding as many bugs as possible
- Advise about testing

Test Motivators

- Existing Use Cases
- Performance
- Workflow

Target Test Items

The listing below identifies those test items—software, hardware, and supporting product elements that have been identified as targets for testing. This list represents what items will be tested.

- Client operations
- Rappla synchronization

Test Approach

Testing Techniques and Types

Function Testing

Technique Objective:	<ul style="list-style-type: none">• Ensure successful Rapla update• Ensure successful Parsing• Ensure correct Initialisation
Technique:	Based on Android-Unit-Tests
Oracles:	Result of the Android-Unit-Test and the corresponding test log.
Required Tools:	Android-Unit-Tetsing integrated in Eclipse IDE
Success Criteria:	All test return the correct and expected result
Special Considerations:	The Android-Unit-Test does not create a visible version of the graphical user interface

User Interface Testing

Technique Objective:	<ul style="list-style-type: none">• Ensure correct displaying of events and graphical objects
Technique:	Based on Android-Unit-Testing
Oracles:	Result of the Android-Unit-Test and the corresponding test log.
Required Tools:	Android-Unit-Tetsing integrated in Eclipse IDE
Success Criteria:	All test return the correct and expected result
Special Considerations:	The Android-Unit-Test does not create a visible version of the graphical user interface

Entry and Exit Criteria

Test Plan

Test Plan Entry Criteria

An android emulator or device is connected to the testing computer

Test Plan Exit Criteria

The test is terminated, when the tests are finished or the device is disconnected

Deliverables

Test Evaluation Summaries

Results are output in testlogs

Reporting on Test Coverage

Results are output in testlogs

Proof of successful test and integration of Unit-Testing in Eclipse

The screenshot displays the Eclipse IDE interface during a unit test execution. The top toolbar shows the 'Run' button (a green play icon) is active. The 'JUnit' tab in the Package Explorer on the left shows a successful test run for 'app.rappla.test.basicTests' with 5/5 runs, 0 errors, and 0 failures. The test results are listed below: 'testActionBarAvailable' (0.164 s), 'testCalendarDownloadTask' (0.101 s), 'testRappaDownloadTask' (0.126 s), 'testTabsAreCreated' (0.126 s), and 'testTrue' (0.329 s). The main editor shows the 'basicTests.java' file with the following code snippet:

```
DownloadRappaTask task = new DownloadRappaTask(activity);
task.execute(RapplaActivity.ICAL_URL);

public void testTabsAreCreated() {
    RapplaFragment fragment = (RapplaFragment) activity.getFragment(0);
    assert(fragment.getTitle().equals("Woche"));
    fragment = (RapplaFragment) activity.getFragment(1);
    assert(fragment.getTitle().equals("Tag"));
    fragment = (RapplaFragment) activity.getFragment(2);
    assert(fragment.getTitle().equals("Bahn"));
}
```

The LogCat window at the bottom right shows the following log messages:

TID	Application	Tag	Text
6560	app.rappla	dalvikvm	GC_EXPLICIT freed 336K, 5% free 21ms
6560	app.rappla	dalvikvm	GC_EXPLICIT freed 30K, 5% free 91ms
6560	app.rappla	TestRunner	finished: testTrue(app.rappla.testTrue)
6560	app.rappla	TestRunner	passed: testTrue(app.rappla.testTrue)
6565	app.rappla	dalvikvm	GC_FOR_ALLOC freed 230K, 4% free 9ms

The bottom status bar indicates the current state: 'Writable', 'Smart Insert', '54:9', '113M of 359M', and 'Android SDK Content Loader'.