Integration Test Plan
Eindhoven, January 15, 2010

TU/e
Technische Universiteit
Eindhoven
University of Technology

Where innovation starts

Project Manager:
Wilco Belgraver Thissen, 0514143

Quality Assurance Manager:
Jelle Hellings, 0592127

Senior management:
Mark van den Brand, HG 5.59
Lou Somers, HG 5.36

Advisor:
Erik Luit, HG 7.12

Customer:
Natalia Sidorova, HG 7.84

Project team:
Roy Berkeveld, 0608170
Gijs Direks, 0611093
Michael van Duijkeren, 0535368
Neal van den Eertwegh, 0610024
Dion Jansen, 0590077
Koen Kivits, 0608715
Sander Leemans, 0608896
Kevin van der Pol, 0620300
Nick van der Veeken, 0587266

Computer Science, TU/e
Abstract

This document is the Integration Test Plan (ITP) of GROUP QIS. This project is part of the Software Engineering Project (2IP35) and is one of the assignments at Eindhoven University of Technology. The document complies with the ITP from the Software Engineering Standard, as set by the European Space Agency [1].

This document provides the main guidance for the Integration Test (IT) during the Detailed Design (DD) phase for the QIS application.
Contents

1 Introduction ......................................................... 4
   1.1 Purpose .................................................. 4
   1.2 Overview ................................................. 4
   1.3 List of definitions ........................................ 4
   1.4 List of references ....................................... 4

2 Test plan .......................................................... 6
   2.1 Test items ................................................ 6
   2.2 Features to be Tested ..................................... 6
   2.3 Test deliverables .......................................... 6
   2.4 Testing tasks ............................................. 7
   2.5 Environmental needs ..................................... 7
   2.6 Test case pass/fail criteria ............................. 7

3 Test case specifications .......................................... 8

4 Test procedures .................................................. 9

5 Test reports ....................................................... 10
Document Status Sheet

Document status overview

General
Document title: Integration Test Plan
Identification: itp-1.0.3108
Authors: Gijs Direks, Neal van den Eertwegh, Nick van der Veeken
Document status: Final

Document history

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author</th>
<th>Reason of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>10-11-2009</td>
<td>Neal</td>
<td>Draft</td>
</tr>
<tr>
<td>1.0</td>
<td>12-01-2010</td>
<td>Nick van der Veeken</td>
<td>First version</td>
</tr>
</tbody>
</table>
Document Change Records since previous issue

General

Date: 12-01-2010
Document title: Integration Test Plan
Identification: ITP-1.0.3108

Changes

<table>
<thead>
<tr>
<th>Page</th>
<th>Paragraph</th>
<th>Reason to change</th>
</tr>
</thead>
</table>

Chapter 1

Introduction

1.1 Purpose

The Integration Test Plan (ITP) describes the plan for testing the integrated software against the architectural design, defined in the ADD[2]. The integration tests make sure that QIS complies with the design in the Detailed Design (DD) phase of the QIS project as described in the ESA software engineering standard[1].

1.2 Overview

Integration testing is done as part of the Acceptance Test. Chapter[2] details how this is established. Because of this way of testing the remaining chapters are not applicable, and they have been marked as such.

1.3 List of definitions

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD</td>
<td>Architectural Design Document</td>
</tr>
<tr>
<td>DD</td>
<td>Detailed Design</td>
</tr>
<tr>
<td>ESA</td>
<td>European Space Agency</td>
</tr>
<tr>
<td>IT</td>
<td>Integration Test</td>
</tr>
<tr>
<td>ITP</td>
<td>Integration Test Plan</td>
</tr>
<tr>
<td>SVVP</td>
<td>Software Validation and Verification Plan</td>
</tr>
</tbody>
</table>

1.4 List of references

Technology, Computer Science, November 2009.


Chapter 2

Test plan

The software to be tested is QIS. QIS must conform to the design as stated in the ADD[2]. The integration between each defined component should be tested.

Integration testing of QIS is done manually by testing for conformance of QIS with the requirements in the URD[4] that apply to the interaction between components. These tests are executed already during development, as specified in section 6.4.1 of the SPMP [3]. Integration is tested when a branch is merged into the trunk.

At the end of the DD phase, when all components of QIS have been developed, an overall integration test is done using the tests specified in the ATP. All tests in the ATP are executed. The tests in the ATP cover the integration testing of all components. Reports of failed ATP tests regarding system testing are documented as specified in the ATP.

No automatic system tests are performed, therefore the remaining sections of this document are not applicable.

2.1 Test items

This section is not applicable.

2.2 Features to be Tested

This section is not applicable.

2.3 Test deliverables

This section is not applicable.
2.4 Testing tasks

This section is not applicable.

2.5 Environmental needs

This section is not applicable.

2.6 Test case pass/fail criteria

This section is not applicable.
Chapter 3

Test case specifications

This section is not applicable.
Chapter 4

Test procedures

This section is not applicable.
Chapter 5

Test reports

This section is not applicable.