Integration Test Plan Document

REPortal Migration Team

March 2, 2007
1 Introduction

This document outlines the Integration test plan for the REportal Migration Project. The goal of this project is to make the RE portal system more robust than its current iteration, incorporating modern programming techniques such as a Service Oriented Architecture, and Aspect Oriented Programming. This new version of REportal will also be made more modular to allow for future projects to expand upon its current programming.

1.1 Document Structure

- Section 2 explains the approach of the integration test plan that we are using. It explains what is being tested in the acceptance test plan and what is not.
- Section 3 lists what requirements for the integration test plan to begin.
- Section 4 explains who has what responsibilities during the integration test.
- Section 5 explains the specific test plan for REPortal

1.2 References

- Requirements Document
- Design Document
2 Approach

This section describes the approach to the testing of reportal to ensure that it meets all requirements.

2.1 Objectives

The integration test will ensure that the modules are communicating with each other and interact in a stable manner. The integration testing takes the input modules that have been unit tested. Then groups the modules into larger aggregates, applies the tests defined in an integration test plan to those aggregates, and delivers it’s output as the integrated system is ready for system testing.

2.2 Structure

Inside the design document we discuss about couple of modules and how they distinguish. So we divide the modules into their priorities. From the higher priority modules to lower priority modules the integration testing performs and how they interact each with other.

2.3 Assumptions

The integration test plan assumes that the structural integrity of modules have been covered during the unit testing. The integration test will ensure the stability of interfacing between modules and it will only check the sequences of function calls by one module to another.

2.4 Exclusions

Any conditions not stated in specified integration tests, outside of the confirmation of the execution of design items, will generally not be tested. Integration tests can not include system-wide (end-to-end) change testing.
3 Criteria

The Integration test can begin after the following have been met.

1. All other tests are completed.
2. A copy of the latest version of the Design Document is available.
3. The latest version of REportal is available.
4. Consent from the Team Leader
5. Consent from the Client
6. Consent from the Project Leader

4 Responsibilities

This section describes the responsibilities of all parties during the Integration test.

4.1 Roles and Responsibilities

Integration Test Leader:
- Umut Akdag

Integration Testers:
- Thomas Shortell
- Justin Wilcox
- Tim O’Neill
- Dan Cardillo

Customer Representatives:
- William Mongan
- Spiros Mancoridis
4.2 Requirements

All parties during the testing of the Integration Test should be familiar with the interface for Reportal, Requirements Document and Design Document and understanding of how REportal works.

4.3 Reporting

All tests done during the Integration Testing need to be recorded by the tester. Action will be taken reactively as problems arise during the testing phase.
5  Integration Plan

The actual plan of integrating the services is to be completed in the following order and the dates are the weeks they are to be completed. Each integration part is a combination of user interface, dispatcher, and service code to be completed. All of the pieces must be completed before the integration begins.

5.1  Components/Services

All components (services) should be completed by April 1st. The services are then going to be integrated with the user interface and the dispatcher in the month of April and May.

5.2  Adding Users and Projects - April 1st

The User and Project Management Services are to be integrated into the user interface and the dispatcher in this step. This is base part of the program and must be completed before all other parts of REPortal.

5.3  Text Search - April 15th

The text search operation is to be integrated and tested after users and projects can be added.

5.4  Metric Search - April 15th

The metrics search operation is to be integrated and tested after users and projects can be added.

5.5  Basic Module Dependency Graph - April 15th

The basic functionality is to be completed and tested after user and project can be added. The functionality is simply making sure a basic graph can be developed by the service and transmitted to the user interface/dispatcher.
5.6 Most Module Dependency Graph Functionality - April 22th

More of the MDG functionality is to be completed during this time. The functionality is making sophisticated graphs outside of bunch.

5.7 Entity Search - April 22th

The entity search is to be completed and tested during this week.

5.8 Relationship Search - April 22th

The relationship search is to be completed and tested during this week.

5.9 Instrumentation - April 22th

The aspect instrumentation is to be completed and tested during this week.

5.10 Complete Module Dependency Graph Functionality - April 29th

All of the MDG functionality is to be completed during this week. This includes the bunch service to create graphs.

5.11 Advanced Search - April 29th

The advanced search is a combination of the entity and relationship search and is basically an update to the other functionality.

5.12 Logger - May 6th

The logger service is to be integrated with the dispatcher at the end of all the other services.

5.13 Maintenance - May 6th - May 31st

The maintenance period will involve practice for the acceptance testing and location and fixing of errors in the code.