



Greta Registry Release V4.1

TEST REPORT

SFW Limited
Southern House
Station Approach
Woking
Surrey GU22 7UY

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Document Control

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Glossary

Term	Description
EUA_AAU	European Assigned Amount unit applicable for Commitment Period 1
CER	Certified Emission Reduction unit
ERU	Emission Reduction unit
UAT	User Acceptance Test(ing)
PID	Project Initiation Document

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1 Introduction

1.1 Document Purpose

To report on the testing activities carried out in the Greta V4.1 project.

1.2 Project Overview

The revision of the Registry Regulations (dated May 2007), specifies a new EU Cancel and Retire process whereby surrendered allowances are first converted to AAUs and then an equivalent number of CERs, ERU_AAUs and AAUs are retired.

The Cancel and Retire process was required to be completed by Member States by the 30th June 2009 and then by the same date of each subsequent year of the Commitment Period.

The Version 4.1 project delivered the required functionality and resolved a number of bugs raised from support calls.

In addition SFW committed to ensuring the application functioned correctly on SQL Server 2005 meaning Greta licensees could upgrade their environments.

1.3 Executive Summary

All system, regression and user acceptance test activities are complete and there are no outstanding issues to prevent general release.

2 Test Process

The test process covered the following areas:

1. Unit Testing

The purpose of unit testing was to ensure that each build deployed for system test, worked as intended. To achieve this, prior to the deployment of any build for formal testing, the responsible developer would perform testing on their own environment to ensure the build functioned as intended.

The unit testing was conducting against the requirements specification.

This activity was not formally recorded.

The developer was responsible for deciding whether to deploy the build into formal system test.

2. System Testing

The purpose of system testing was to ensure that the application performed against the agreed requirements. All agreed requirements were raised in Team System. To perform the tests, test cases were written. The 'combined approach' was selected as described in QME514.

System testing was also conducted to ensure that bugs raised and resolved from support calls functioned as expected. All bugs to be resolved from the support process were raised in Team System and referenced the Support Desk number (SFWnnnnn).

System Testing was carried out by SFW staff using the SFW Greta Test Server hosted at Opal (GretaERWeb) and specifically the System Test environment connected to a Simulator.

3. Regression Testing

The purpose of regression testing was to ensure that functions not directly affected by the development activities still function as intended.

In addition, regression testing was used to ensure the application was compatible with SQL Server 2005.

Regression Testing was carried out by SFW staff using the SFW Greta Test Server hosted at Opal (GretaERWeb) and specifically the Integration Test environment connected to the Developer Test ITL.

4. User Acceptance Testing

The purpose of User Acceptance Testing (UAT) was to ensure that the application was fit for purpose as deemed by end users.

In addition, UAT was used to execute the latest CITL Test Scenario used by licensees to re-certify Registries prior to deployment into their live environments.

User Acceptance Testing was planned and conducted by Working Group A (as described in the PID) on their own test environments connected to the Registry Test ITL. SFW were responsible for releasing the installation package and providing development resources for bug fixing.

Once Working Group A had completed User Acceptance Test and the defects were below the Quality Criteria set out in the PID, the application would be deemed fit for general release.

3 Test Environments

We used three environments for conducting the tests:

Environment	URL	Server	Connection to ITL	Unit Test	System Test	UAT
Developer	Azarole (VM)	Domain-SFW1\Pie	Emulator ¹	✓	✗	✗
System Test	Systemtest.gretaregistrytest.co.uk	GretaERWeb	Simulator ²	✗	✓	✗
Integration Test	Integrationtest.gretaregistrytest.co.uk	GretaERWeb	Developer ITL ³	✗	✓	✓

¹ The Emulator acts as a 'dummy' ITL by automatically responding to any outgoing message. It always responds immediately and always with a positive reply.

² The Simulator is a separate tool that stores incoming messages from a Registry, allows the message to be viewed and the user to select a positive or negative response.

³ The Developer ITL is a real ITL hosted by Logica that Registry Developers use to test against.

4 System Test Results

The system test-cases and results can be found in the Version 4.1 project file in the System Test folder (V4.1 System Test Cases and Report.xls)

In total, there were 59 requirements to test:

- 29 on the Conversion functionality
- 30 on the Retirement functionality

In response to the new requirements:

- 29 test-cases were written on the Conversion functionality
- 27 test-cases were written on the Retirement functionality
- 16 test-cases were written on the Surrender functionality

All new test-cases are showing status "PASS" against the final build V4.1.16.

All requirements are set to status "Closed" in Microsoft Team System.

In total 14 bugs were fixed arising from calls raised in the Support Helpdesk.

All bugs are set to "Closed".

Conclusion:

System Testing has successfully completed and there are no outstanding tests, requirements and all support bugs are resolved.

The new functionality meets the requirements.

5 Regression Test Results

The regression test-cases and results can be found in the Version 4.1 project file in the System Test folder (V4.1 System Test Cases and Report.xls)

The regression element of the spreadsheet comprises all tabs except “Surrender”, “Conversion” or “Retirement” as this functionality was tested as part of “System Test”.

Regression Testing covered the following functionality:

- System Set-Up and Account Creation (3)
- Account Management (11)
- Issuance (26)
- Allocation (1)
- Transfer (8)
- Cancellation (8)
- Compliance (5)
- Registry Operation (2)
- Validate Installation and Permit (2)
- Notifications (1)

In total, 67 test-cases were run and all are showing status “PASS”.

Conclusion:

Regression testing has successfully completed and there are no outstanding tests. The application is deemed compatible with SQL Server 2005.

6 Defects

Microsoft Team System was used to raise defects throughout System Test and User Acceptance Testing.

At UAT sign-off, the defect statistics were:

10th June 2009 (V4.1.16)

	Raised	Active	Resolved	Closed	Total
Support	15	1	0	14	
New Functionality	108	21	0	87	
Total	123	22	0	101	123

Active	P1		P2		P3		P4	
	0	0.00%	1	0.81%	3	2.44%	18	14.63%

Resolved	P1		P2		P3		P4	
	0	0.00%	0	0.00%	0	0.00%	0	0.00%

On product sign-off, all remaining defects will be assigned to the next release (V4.2).

Conclusion:

The defects are all below the Quality criteria set out in the PID and therefore subject to WGA approval the product can be released.

7 User Acceptance Testing

User Acceptance Testing was planned and executed by Working Group A.

In total, 54 test-cases were written and run.

Working Group A raised 21 bugs in total.

Working Group A also ran the CITL Test Scenario and demonstrated that all steps passed.

Working Group A signed the product off for general use on the 10th June 2009.

8 Deviations/Exceptions

None to report