# Braille & Large Print Advices Test Strategy

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| **Project Name:** **Braille and Large Print** | **Date:** **05/11/2001** |
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| **Context Name:** **Core Gaps** | **Phase:** |
| **Context Id:** | |

**Project Sponsors:**          **REYNARDS Marketing**

**Business Project Managers:**          XXXXXXXXXXXXXX

**Relationship Manager:**          XXXXXXXXXXXX

**Technology Project Manager:**          XXXXXXXXXXXXXXXXXX

**Notes:**

| CIRCULATION LIST | |
|---|---|
| **For Action** | **For Information** |
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**Accepted By:**          **Business Project Managers:**          _____

**Technology Project Manager:**    _____

## Version Control

| Version Number | Date | Comments |
|---|---|---|
| 0.1 | 02/11/2001 | First draft version |
| 0.2 | 05/11/2001 | Updates applied after review by Project team members. |
| 0.3 | 28/11/2001 | Review updates |
| 1.0 | 20/12/2001 | For circulation |

# Contents

# 1.    Introduction

## 1.1  Purpose

This document describes the scope, approach, resources  and schedule of the testing activities for the testing of the Braille and Large Print Advices.

It identifies :-

* the items being tested
* the features to be tested
* the approach to each testing phase
* the testing tasks to be performed
* the personnel responsible for each task
* the risks associated with this plan.

## 1.2  Scope

This document will outline the strategic approach to be taken in the following stages of testing of the Braille and Large Print SCA's and Interest Advices changes to the Central Despatch system.

Unit Testing
Link/System Testing
User Acceptance Testing

# 2   Project Context

## 2.1      Background and System Introduction

A gap in REYNARDS service has been identified wherby Service Charge and Interest Advices are not produced and sent to visually imparied Personal and Commercial customers.

Under the terms of the Disability Discrimination Act 1999, REYNARDS has to make reasonable adjustments to provide the same level of service to it's visually impaired customers as it does to it's other customers.

RNIB is currently producing Statements in Braille and Large print from a file supplied to them on the 18th of each month.  From January 2002 onwards, a file of Personal/Commercial Service Charge Advices and Personal Interest Advices will be sent alongwith the Statements file and each quarter a file of Commercial Interest Advices will be sent to them to produce the Commercial Interest Advices in Braille and Large Print.

## *2.1   Project Implementation*

Implementation details are described in the Braille Implementation Plan -
\\GSPANFE\General\REYNARDS GAPS\WM-ISO-B&LPA\Braille & Large Print advices\Testing\Detailed Test Strategy\

## 2.2   Summary of Software Items and Software Features to be Tested

The table below lists the new JCL procedures which will be tested :-

| Sectioned JCL Procedures | Main JCL Procedures | Description | Frequency |
|---|---|---|---|
| CAU22xxD (where xx is the section id) | CAU2201D | Append to the Personal Service Service Charges + Interest and Commerical Service Charges daily accumulation extract file. | Daily |
| *n/a* | CAU2202D | Combine Extract Files and append to a single file for processing by CAU2301M | Daily |
| *n/a* | CAU2301M | Read the daily extract accumulation file from CAU2202D and produce an RNIB formatted file. | Monthly |
| *n/a* | CAU2401M | Clears out the extract file for the accumulation of Service Charge Advice Records for the following month. | Monthly |
| *Not sectioned* | CAU2401Q | Extract Commercial Interest Advices Required in Braille and Produce and RNIB formatted file | Quarterly |

The table below lists the new Programs to be tested :-

| Main Program | Called Program | Language | Description |
|---|---|---|---|
| CA2190 | | COBOL | Extract Personal/Commercial Service Charge Advices & Personal Interest Advices. |
| CA2191 | | COBOL | Common Program to produce file in RNIB format. This program writes out file header, branch header, advice header and file trailer records and for each pagestream record input from the extract file a module is called to format and write out the advice detail records to the RNIB output file. |
| | CA2192 | COBOL | Format Personal Service Charge Advice Detail Lines |
| | CA2193 | COBOL | Format Commercial Service Charge Advice Detail lines |
| | CA2196 | COBOL | Format Commercial Interest Advices Detail lines and write to the RNIB formatted file. |
| CA2195 | | Easytrieve | Combine all sub-sectioned Account Master files and extract relevant fields from Account Master Record where the Return to Branch Marker = 'B', 'G' or 'L'. |
| CA2194 | | COBOL | Extract pagestream Commercial Interest Advice records |

See Technical Change Document for details of the above at - \\GSPANFE\General\REYNARDS GAPS\WM-ISO-B&LPA\Braille & Large Print advices\Design\Technical Change Design\Braille Service Charges Technical Change Document v0.3.doc

### 2.3 Project Documentation

Project Documentation is held in GFSPANFE\REYNARDS GAPS\WM-ISO-B&LPA\Braille & Large Print advices

### 2.4 Identify Project Testing Interfaces

Central Despatch Interface

The new CAUSTIC processes being developed will take a <u>Daily</u> data feed from Central Despatch of Personal and Commercial SCA's & Personal Interest Advices required in Braille and on a <u>Quarterly</u> basis will take a data feed of Commercial Interest Advices required in Braille. These data files will be converted into RNIB formatted files.

RNIB Interface

Two files will be sent to RNIB by the Connect Direct File Transfer Facility who will process them to reproduce the SCA's and Interest Advices in Braille and Large Print. The file of Personal & Commerical SCA's and Personal Interest Advices will be sent on the 18th of each month along with the current Statements file and the file of Commercial Interest Advcies will be sent out each quarter.

## 3 Features to be Tested

### 3.1 System Functionality

The major areas of functionality to be tested are :-

1. Daily Extract of Personal & Commercial SCA and Personal Interest Advices from the BTB print files.
2. Production of a file of Personal and Commercial SCA's and Personal Interest Advices on the 18th of each month in the format required by RNIB.
3. The Quarterly extraction of Commercial Interest Advices required in Braille & Large Print.
4. Production of a file of Commercial Interest Advices each quarter in the format required by RNIB.
5. The Production of the following Advices in Braille, Advanced Braille and Large Print by RNIB.
   - Personal Service Charge Advices
   - Personal Interest Advices
   - Comercial Service Charge Advices
   - Commercial Interest Advices

### 3.2 Interfaces

See paragraph 2.4 above.

### 3.3 Report Production

No reports are required for this development.

### 3.4 Screen Functionality

No online processes.

### 3.5 Simulated Business Running

This will be tested during the UAT phase.

### *3.6   Backup/Restore*

All test output will be backed up as part of the systems backup procedures.

### *3.7   Failure/Recovery*

Not Applicable.

### *3.8   Performance/ Capacity/ Volume/ Limit/ Stress*

Not Applicable.

### *3.9   Operational/Housekeeping/Database admin*

Not Applicable.

### *3.10  Regular Processing*

This will be tested during the Link/System Test Phase

### *3.11  Security*

File will be encrypted when transferred by Connect Direct File Transfer Facility to RNIB.

### *3.12  Audit*

Not Applicable.

### *3.13  Training*

Training will be required for some team members in the running of jobs, checking job results, editing of data files, comparision of files and other utilites which may be useful during testing.

### *3.14  Implementation/ Installation*

Implementation will be handled by ITS.

### *3.15  Software Distribution*

Mainframe Software will be distributed via Endevor and the Change Management System.

## 4   Features Not to be Tested
- Development work required to create document templates, mapping of incoming data to templates etc will be conducted by RNIB.
- RNIB will ensure that files received via the Connect Direct Transfer Facility are complete and consistant.  This will involve checking the File Header, Branch Header and Trailer records and ensuring that the no. of records/advices correspond with totals held therin
- Checking of the Braille Advices will be done by RNIB on our behalf.

## 5   Test Items
See <u>Summary of Software Items and Software Features to be Tested</u> on page 7.

# 6    Approach

## *6.1   General Approach*

- The Development Team will carry out all Unit Testing.
- All outputs from Unit Testing (code, unit test plan, unit test cases & conditions) will be reviewed internally in conjunction with the Technical/Program Specifications.
- All Link/System test results must be signed off by the project team and appropriate business representatives.

General Program Descriptions

The programs to be tested can be described as one of the following :-

- The extracting of record from Central Despatch Back to Branch Files to produce an extract file of page stream advices required in Braille to feed into a formatting module.
- Common Program to write out File, Branch and Advice headers and File Trailer to RNIB file and calling formatting sub-modules.
- Formatting modules based on  REYNARDS formatting modules which will format the detail lines within the body of an advice and write these details to the same file as the control program described above.

## *6.2   Test Phases*

### 6.2.1   Unit Testing

Tests will be undertaken concerned with validating that the modules function as described in the Technical Change Specification is correct in terms of design, logic and data requirements.

Unit Test Plans will be created by the programmer of the module, and will contain control flow models that detail each branch/decision in the program.  Test cases will be derived directly from these models to produce a covering set of tests.

The unit testing of the advice formatting modules, CA2192, CA2193 & CA2196,  will ensure that all advice detail lines that can possibly be produced for all paragraphs will be produced and checked.  This will be achieved by using the data files as used for the Unit Testing of the NW Look and Feel equivalent programs.

### 6.2.2   Link/System Testing

From the Link Test point of view, the objectives are to test the continuity of design of the system by focussing on the transfer of data between different program units.

This will mainly involve at a program level :-

- Ensuring that the data extracted from the Central Despatch Back to Branch file is accumulated on a daily basis correctly and is in turn passed via an intermediate sequential file to a file formatting module which creates the file for RNIB each month.
- The extracted advice data is passed correctly to the appropriate Advice formatting module and on processing that data, the detail lines for a formatted advice is written out correctly.
- The creation of the files for RNIB in the correct format.

and at <u>System Level</u>

- Ensuring that when the JCL jobs are run in the correct order that the specifed cycle of processing has taken place and can be repeated for the next processing period without the need for manual intervention.

The <u>objective of the System Testing</u> is to fully test the business functionality of the new Central Despatch Braille Proccess against the functional requirements which are recorded in the <u>Terms of Reference</u> (the Functional Changes were included in the ToR as no Functional Spec was necessary).

The initial runs of the <u>Personal and Commercial SCA</u> and <u>Commercial Interest Advice</u> jobs will be focussed on the objectives of the Link Test while subsequent runs will concentrate mainly on the System Test objectives.

<u>Input Files</u>
The initial test run will use the input files used at Unit Test Stage which generate full text advices because full coverage of advices lines would not be possible using data selected from production data files.

For subsequent test runs, in the case of the Personal and Commercial SCA process, the input test files will be selected from files produced by the previous 3 days processing, and for each day, 3 sections which will be selected based on the criteria below.  The input files required are the PMERGE file from job GEUP1xxD, Commercial BTB SCA file from GEUC1xxD and the GREENDALE file originating from CAUSTIC.  See Technical Change Specification, <u>Current Logical Personal & Commercial SCA Diagram</u>.

For Commercial Interest Advices, the most recent Central Despatch file in production will be used as an input test file. See Technical Change Specification, <u>Current Logical Commercial Interest Advice Diagram</u> for details.

<u>Test Data Selection Criteria</u>
The accounts should be selected with the following criteria in mind :-
- Advices are required in Braille or Large Print.
- The accounts should span the Isle of Man (Stationery Code of 14 & 15), Offshore (Stationery Code of 12 & 13) and UK mainland banks (Stationery Code of 10 & 11).
- Range of Products for each bank.
- In the case of Personal accounts, the Advice Type specified will result in all the paragraphs that can be produced for an advice being output.

### 6.2.3   Regression Testing

Regression Testing is not required as no existing code in production has been affected.

### 6.2.4   User Acceptance Testing

Test RNIB formatted files will be produced of Personal and Commerical SCA's and Commercial Interest Advices which will be sent to RNIB for verification against the hard-copy versions of the advices which will be produced by the Back to Branch printing jobs GEU10xxD and GEP02xxD. The initial test file will be produced using the Unit Test Files which produce full coverage of all the detail lines and subsequent test files will be produced using a  subset of the test performed for the Link/System Test.

Two runs of the full coverage test run will be conducted to produce a file for RNIB, the first with the Braille indicator set to 'L' which will result in all advices produced by RNIB being being output on Large Print which will enable them to be easily checked and the second run will be done with the Braille indicator set to 'B' or 'G' which will mean that full coverage advices will be produced in Braille also for checking by RNIB.

The Back to Branch printing jobs will be run with the same input data as input to the new RNIB extract processes.  In the case of Personal & Commercial SCA's, this will involve running the Back to Branch Printing Process 3 times with each days input files to produce a hard-copy version of the Personal & Commercial SCA's and Personal Interest Advices and manually selecting the advices from the back to branch hard-copy output which correspond with those advices that have been extracted. A similar approach can be taken to produce hard-copy versions of the Commericial Interest Advices.Deviations from Standard Approach

## 6.3   Test Phase Initiation and Completion Criteria

| Testing Phase | Entry Criteria | Exit Criteria |
|---|---|---|
| Unit Testing | • Technical Change Document completed, signed-off (or in the process of). <br> • Application Software built <br> • Unit Test Conditions completed, signed-off | • Unit Tests complete and signed-off by Dublin Project Team. <br> • All errors found during Unit Tests fixed and re-tested. |
| Link/System Testing | • Unit Test of components completed <br> • Link/System Test Plan prepared <br> • Link/System Test Scripts <br> • Test environment set up (including JCL procedures and test data) | • All test cases run, completed satisfactorily and signed off by the Development team <br> • All Link Test Discrepancy Reports have been resolved and signed off by the Development team <br> • All test cases and test case results are recorded <br> • Test Completion Report complete |
| User Acceptance Testing | • Link/System Test has reached the point where a Test File for Personal & Commercial SCA's can be confidently produced. <br> • RNIB have completed their development and testing phases. | • The BTB Printed hard-copy versions of the advices match as expected with the Braille and Large Print equivalents. |

## 6.4   Specify Testing Tools and Techniques

Standard REYNARDS tools will be used to assist the testing procedure e.g PROEDIT, FILEAID, XPEDITER.

## 6.5   Identify Approach To Incident Handling

During the Link/System Test Phase, errors will be logged by severity and type and tracked using Fault Report Forms (FRF's).  An error log will also be stored on g:\Reynards core systems\look & feel\testing within each testing phase sub-directory e.g \\GSPANFE\General\REYNARDS GAPS\WM-ISO-B&LPA\Braille & Large Print advices\Testing\System Testing\Error Log.xls

The severity ratings proposed for this project are:

| Severity | Priority | Description |
|---|---|---|
| 1 | High | Fix required immediately – testing cannot continue |
| 2 | Medium | Fix required but testing can continue.  Link/System Testing cannot be signed off until fix is applied. |
| 3 | Low | Fix is desirable rather than essential.  The defect will not impact on implementation and can be addressed post implementation. |

All severity 1 and 2 problems will be fixed before the Link/System Test phase is signed off. Severity 3 problems will not prevent the project going live and do not therefore need sign off.

# 7   Test Deliverables

| Test Deliverable | Who | Target Dates |
|---|---|---|
| Unit Test Plan | BC, DMcC | 19/11/01 |
| Unit Test Scripts and Results Documentation | BC, DMcC | 30/11/01 |
| System/Link Test Plan | BT | 16/12/01 |
| System/Link Test Error Log | BT, BC, DMcC | 04/01/02 |
| System/Link Test Scripts and Results Documentation | BT, BC, DMcC | 04/01/02 |
| System Test Completion Report | MG | 04/01/02 |
| UAT - Test Files for RNIB and BTB hard-copy Printed Output | BT, BC, DMcC | 04/01/02 |
| UAT – Braille and Large Print Advices produced from testfile | RNIB | 11/01/02 |

## 8   Testing Tasks

The following is a list of the main testing tasks which will be performed during the testing phase.

- Test Planning
- Test Specification
- Test Execution
- Test Scripts and Results Documentation
- Test Environment Planning and Co-ordination
- Test Incident Management.

## 9   Environmental Needs

- Connect Direct File Transfer Facility will need to be in place for the UAT Testing.  This will involve Batch Services liasing with NDM and RNIB to set-up the transfer similar to how statements is transferred currently with the additional requirement of encryption which is required by Security Management.

## 10  Responsibilities

| Role | Responsibility |
|------|----------------|
| **Test Manager**<br>XXXXXXX XXXXXXXXX | To plan and co-ordinate all testing activities in conjunction with the Test Co-ordinator. |
| **Test Co-ordinator**<br>XXXXXXX XXXXXX/XXXXXXX XXXXXX | To plan and control Link/System Testing and UAT. Day to day logging and progressing of incidents and tracking of incident rates |
| **Test Analyst**<br>XXXXXXX XXXXXX/XXXXXXX XXXXXXXXX /XXXXXX XXXXXXXX | To specify and/or setup tests to be run during Link/System Test. |
| **Reviewer**<br>XXXXXXX XXXXXX | To review Test Plans before execution and Test Results afterwards. |
| **Test Executor**<br>Brendan Connaghan /Declan McCartan/Brendan Treacy | To set-up/execute the tests specified. |
| **Test Fix**<br>XXXXXXX XXXXXXXXX /XXXXXX XXXXXXXX | To resolve problems found during the testing as a result of an application error. |
| **Environment Control**<br>XXXXXXX XXXXXX/ XXXXXXX XXXXXX XXXXXXX XXXXXXXXX /XXXXXX XXXXXXXX | To control the test environment used in any test.<br>To support the set-up of the test environment used in any test. |

## 11  Staffing and Training Needs

See 3.13 Training above.

## 12  Schedule

Key testing milestones are detailed in the Project Plan.

## 13  Risks and Contingencies

All project Risks and Issues are documented in PRIME.

## 14  Approvals

The Test Approach document will be internally reviewed by all members of the Project Team and formally reviewied by a member of the REYNARDS Consultancy team.

## 15  Action List

No actions to note at ths Version 0.1 of the Test Approach.