



Tasmania

DEPARTMENT *of*
INFRASTRUCTURE,
ENERGY *and* RESOURCES

<Project Name>

ACCEPTANCE TEST PLAN

<SCOPE OF TEST – E.G. SYSTEM TESTING>

<BUSINESS UNIT/DIVISION>

Version <n.n> - <Date>

DOCUMENT ACCEPTANCE and RELEASE NOTICE

This is release <n.n> of the Test Plan for the

<System Name> System.

This is a managed document. For identification of amendments, each page contains a release number and a page number. Changes will only be issued as a new document version. Superseded versions shall be destroyed immediately.

This document is authorised for release once all signatures have been obtained.

APPROVED: _____ **DATE:** ___/___/___
<Business Unit Manager>

ACCEPTED: _____ **DATE:** ___/___/___
<Business Owner>

ACCEPTED: _____ **DATE:** ___/___/___
< Business Owner>

Acknowledgments <optional>

The contribution of <Contributor Names> in preparing this document is gratefully acknowledged.

This document has been derived from a DIER template.

1. BUILD STATUS:

Version	Date	Reason	Document Section(s)
<n.n>	<Date>	<e.g. Initial Release>	<e.g. All>

2. AMENDMENTS IN THIS RELEASE:

Section Reference	Amendment Summary
	<e.g.> This is the first release of this document.

3. DISTRIBUTION:

Version <n.n> was distributed on the <Date> to the following:

Copy No.	Issued To
1	<Name>, Project Manager
2	<Name>, Manager - Information Management Branch (IMB)
3	<Name>, Test Coordinator, IMB
4	<Name>, Manager - Corporate Applications, IMB
5	<Name>, Manager Database Administration, IMB
6	<Name>, Manager - IT Infrastructure and Support Services, IMB
7	<Name>, <Business Unit> Manager
8	<Business Unit Test Coordinator>
9	<Other Business Unit Representatives>
10	<Other Stakeholders>

4. DOCUMENT NAME/PATH:

C:\My Documents\Acceptance Testing\Test Kit\Templates\Test Kit Template - Test Plan Small Project(Revised JCC).doc

Table of Contents

1. Overview	2
1.1. Purpose	2
1.2. Scope	2
1.3. Output	2
1.4. Stakeholders.....	3
2. Testing	4
2.1. General Approach.....	4
2.2. Responsibilities.....	7
2.3. Acceptance Testing Schedule	12
2.4. Environment	12
2.5. Resources	13
2.6. Reporting	13
2.7. Test Case Report.....	13
3. Testing Prerequisites	15
3.1. Quality Assurance.....	15
3.2. Test Cases	15
3.3. Changes to Test Cases	15
3.4. Collation of Test Data.....	15
4. Testing Procedure	16
4.1. Test Schedule.....	16
4.2. Test Results.....	17
4.3. Review of Test Results	17
4.4. Corrective Action.....	17
4.5. Acceptance and Release.....	18
4.6. Suspension of Testing.....	18
4.7. Documentation.....	18

1. Overview

1.1. Purpose

The purpose of this document is to:

- ◆ Describe the strategy for Acceptance Testing for the <Project Name> to verify compliance with requirements as specified in the supplier contract;
- ◆ Ensure all requirements for Acceptance Testing the <System Name> System are appropriately assessed and planned within the overall Project Plan; and
- ◆ Demonstrate to all stakeholders that the testing processes to be undertaken will be appropriately managed and controlled.

The intended audience is:

- ◆ <Business Unit representative>
- ◆ <Other Business Unit representatives etc.>

1.2. Scope

The scope of this Acceptance Test Plan is:

- ◆ <e.g. Describe what is to be tested and cross-reference to the resource register if necessary.>
- ◆ <e.g. Detail if the Plan is focused on a single system or on multiple products covered.>

1.3. Output

Outputs to be produced as a result of Acceptance Testing are:

- ◆ <Test results – describe in what format>
- ◆ <Recommendations – this may include the risk strategy to be adopted and the impact/consequences of such a strategy>

1.4. Stakeholders

Stakeholders and their involvement with the Acceptance Testing process have been listed in Table 1 (below).

Stakeholder	Reason	Requirement
<e.g. IMB>	<e.g. Responsible for maintenance of hardware.>	<e.g. To determine IMB resources needed for supporting actual testing environments.>

Table 1. Stakeholders

<This table may be attached as an appendix.>

2. Testing

2.1. General Approach

<Give a broad overview of the testing procedure that is to be undertaken.>

The general approach for Acceptance Testing the <System Name> System is as follows:

- ◆ <e.g. the venues/sites that will be used>
- ◆ <e.g. how testing will be structured, grouped etc. - hands-on testing>
- ◆ <e.g. any other business units involved>
- ◆ <e.g. internal or external resources required>
- ◆ <e.g. audit assessment)>

In addition, include a description of how many times any testing procedure will be executed e.g. Testing will be structured into test cycles. A test cycle is a complete pass through all the required tests. When new versions of the <System Name> System are delivered during testing, the Testing Team will cease the current cycle at an appropriate time and commence a new cycle. Each new cycle will include any retesting for problems corrected. It is expected, due to time constraints with this project, that only two test cycles may be possible.>

2.1.1. Programmer Unit Testing

<This section does not need to be included for a small project.>

<e.g. Where individual programs and modules are tested:

- ◆ Programmer Unit Testing will be the responsibility of <System Supplier>, and will be managed by the <System Supplier> Project Manager or a delegated <System Supplier> Test Manager;
- ◆ Programmer Unit Testing will be undertaken by <System Supplier> developers;
- ◆ For each type of module a set of standard tests will be established;
- ◆ For each module a set of test conditions or test cases will be established (over and above the standard tests) - these will include all possible conditions and errors;
- ◆ Programmer Unit Testing will be done progressively as programs are developed;
- ◆ Programmer testing will be undertaken in the development environment, located on the development server;
- ◆ Programmers will test their own programs;

- ◆ For each program or module, a set of test cases and expected results will be identified and recorded, and will include all test conditions and error messages;
- ◆ Each page used to record testing shall identify the unit of programming tested including the version such as date and time stamp of the load module and a page number within the set of tests applied to the unit of programming;
- ◆ Programs will be subject to quality inspections. Inspections will include a review of unit test cases and results and may include further unit testing.
- ◆ Completion of unit tests will be recorded and test documentation will be retained; and
- ◆ Procedures will be established to migrate tested programs to the test environment, and to ensure migrations are managed and accurate records maintained.>

2.1.2. Functional Unit Testing

<This section does not need to be included for a small project.>

<e.g. Where individual programs and groups of related programs are tested against the Design Specifications:

- ◆ Functional Unit Testing will be the responsibility of <System Supplier>, and will be managed by the <System Supplier> Project Manager or a delegated <System Supplier> Test Manager;
- ◆ Procedures for Functional Unit Testing will be established;
- ◆ Functional Unit Testing will be undertaken by the <Business Unit> User Representative in the test environment, located on the development server;
- ◆ The <System Supplier> developers will provide necessary assistance to the <Business Unit> User Representative;
- ◆ The <Business Unit> user will be familiar with the functional area being tested;
- ◆ The development team will migrate the required programs to the test environment and provide the necessary files, tables and reference data to enable the program to be functionally tested, and provide any other necessary support;
- ◆ Functional Unit Testing will be done progressively during development as functional modules are completed and following completion of programmer unit testing;

- ◆ The user will test the program against the Design Specifications using test cases based on the specifications.
- ◆ Results of tests will be recorded on test sheets, and where programs do not perform as expected, a Test Problem Report will be raised and registered;
- ◆ Test Problem Reports will also be used to record any in or out of scope issues; and
- ◆ Completion of functional unit tests will be recorded and test documentation will be retained.>

2.1.3. System Testing

<This section does not need to be included for a small project.>

<e.g. Where the system as a whole is tested against the Design Specifications:

- ◆ System Testing will be the responsibility of <System Supplier>, and will be managed by the <System Supplier> Project Manager or a delegated <System Supplier> Test Manager;
- ◆ System and integration testing shall be performed to ensure that the system works as a whole;
- ◆ A System Test Plan will be prepared by the <System Supplier> Development Team;
- ◆ System Testing will be performed jointly by <System Supplier> development personnel and <Business Unit> personnel assigned to the project;
- ◆ System Testing will be performed in the test environment located on the development server using workstations and printers located at <Location>;
- ◆ System Testing will be undertaken against selected live data as well as against special purpose test data;
- ◆ System Testing will include volume testing (with a high number of transactions and records processed) and stress testing (with transactions processed at high frequency);
- ◆ Results of tests will be recorded and where system components do not perform as expected, a Test Problem Report will be raised and registered.

2.1.4. Acceptance Testing

<Where the system is tested against the Functional Specifications in simulated live operation:

- ◆ Acceptance Testing will be the responsibility of <Business Unit>, and will be managed by the <Business Unit> Test Manager;
- ◆ Acceptance Testing will be undertaken against an Acceptance Test Plan to be prepared by the <Business Unit>;
- ◆ Acceptance Testing will be undertaken on the production server using workstations and printers located at <Location>;
- ◆ Standard tests will exist for each program type; (on-line enquiry, on-line update, batch process, standard report, word processing report, etc.);
- ◆ A specific set of test cases will exist for each function;
- ◆ Tests will also be undertaken on importation of the different types of interface files provided by external organisations;
- ◆ Tests for data migration functions will be undertaken;
- ◆ Specific tests for security, concurrent data access and database integrity will be undertaken;
- ◆ Tests to ensure user group privileges are working will be done;
- ◆ The audit trail will be monitored to ensure it is recording all required data changes;
- ◆ Specific tests against performance criteria, detailed in <Contract Reference> of the Agreement between <Business Unit> and <System Supplier>, will be undertaken;
- ◆ User procedures, batch processes, periodic processes and controls will be tested;
- ◆ Backup and recovery procedures will be tested;
- ◆ User, technical and operations documentation will be verified;
- ◆ The impact of the new system on existing systems will be tested.

2.2. Responsibilities

<Describe the roles and responsibilities of stakeholders and other Departmental staff required for the Acceptance Testing process.>

The roles and responsibilities of stakeholders and other Departmental staff are detailed below.

2.2.1. <Business Unit> Acceptance Test Manager

Nominee: <Name>, Acceptance Test Manager

- ◆ Manage the Acceptance Test and coordinate Acceptance Testing activities;

- ◆ Prepare the Acceptance Test Plan and Acceptance Test procedures and request/obtain the necessary Acceptance Test resources;
- ◆ Advise on establishment and training of the Acceptance Test team;
- ◆ Assign Acceptance Test tasks;
- ◆ Coordinate compilation of, and access to, Acceptance Test data;
- ◆ Liaise with the Service Provider Project Manager;
- ◆ Oversee development of Test Cases/Scripts, based upon business requirements as detailed in the Contract, RFQ/RFT or other documentation upon which system development will be based;
- ◆ Formally report to the Project Sponsor and Business Unit Manager on the status of Acceptance Testing;
- ◆ Formally manage, record, and authorise modifications to the Acceptance Test system, the documentation, the Test data, and the Acceptance Test environment;
- ◆ Manage and liaise/communicate with stakeholders regarding change requests and Test problems;
- ◆ Ensure that Tests are completed to the agreed schedule;
- ◆ Review Test results;
- ◆ Administer Test problem reports and recommend priorities for resolution;
- ◆ Ensure Tests are repeated where necessary;
- ◆ In the event of serious problems, determine whether to recommend suspension or cancellation of Testing;
- ◆ Recommend formal acceptance of the system to the Project Sponsor; and
- ◆ <Additional responsibilities>.

2.2.2. <Test Team Name> Testing Team

Nominee: <Name>, Business System Administrator

- ◆ Administer and initialise the system configuration data for:
 - End-users and end-user system privileges;
 - Printers and stationery;
 - Work stations;
 - System codes and settings;
 - Access to the Acceptance Test data; and

- Batch processing;
- ◆ Verify production support facilities;
- ◆ Test system administration functions;
- ◆ Coordinate generation of Test data;
- ◆ Test system documentation;
- ◆ Run routine batch processes and reports including audit trail reports;
- ◆ Run data integrity checking routines and monitor data integrity; and
- ◆ <Additional responsibilities>.

Nominee: <Name>, Senior User Representative

- ◆ Liaise with the Acceptance Test Manager;
- ◆ Assist in development of Test Cases/Scripts;
- ◆ Coordinate the testing activities of Business Unit officers;
- ◆ Coordinate the use of Test data;
- ◆ Undertake Tests as requested;
- ◆ Record Test Cases and conditions;
- ◆ Record and report successful completion of Tests and document problems encountered; and
- ◆ <Additional responsibilities>.

<Other Business Unit Representative(s)>, <Position(s)>

- ◆ Assist with the Acceptance Test Plan as assigned;
- ◆ Prepare and provide Test data, and write Test Cases/Scripts, with expected results;
- ◆ Undertake tests as requested;
- ◆ Record and report successful completion of tests and document problems encountered; and
- ◆ <Additional responsibilities>.

The Testing Team is to be managed by the <Business Unit> Acceptance Test Manager.

2.2.3. Information Management Branch Representatives

Database Administration Services:

Nominees: <Name>, Database Administrator

- ◆ Migrate application to the appropriate test/pre-production environment;
- ◆ Initialise the database (and re-initialise as required). This may include the loading of appropriate security-related data;
- ◆ Ensure database integrity, both in content and security;
- ◆ Ensure establishment of the application environment parameters;
- ◆ Ensure ancillary and support software is loaded and configured;
- ◆ Provide database support services as required;
- ◆ Undertake any specialised Testing requirements;
- ◆ Ensure requested database modifications are appropriate;
- ◆ Coordinate database backup procedures as outlined in the Acceptance Test Plan;
- ◆ Establish all end-of-day and batch processes;
- ◆ Support standard application release procedures and verify their operation; and
- ◆ <Additional responsibilities>.

Infrastructure and Support Services:

Nominees: <Name>, <Position>

- ◆ Set up and maintain the application environment;
- ◆ Provide the required hardware components for the Testing environment;
- ◆ Provide and support desktop, communications, and server environments in accordance with the Acceptance Test Plan (which in turn will nominate the environments required for Testing, Training, and Pre-Production);
- ◆ Assist with stress, performance, and integrity testing as required in the Test Plan; and
- ◆ <Additional responsibilities>.

Nominees: <Name>, Business Analyst

- ◆ QA the Acceptance Test Plan.

2.2.4. Other Government Agency Representatives

Nominee: <Name>, Business Owner

- ◆ Develop business objectives and requirements and ensure they are clearly detailed in any Contract, RFQ/RFT etc. in order to base Acceptance Criteria upon them;
- ◆ Appoint and direct the Acceptance Test Manager;
- ◆ Approve the Acceptance Test Plan;
- ◆ Manage the provision of requested Acceptance Test resources, including Business Unit officers to participate in the Acceptance Tests;
- ◆ Review Test results;
- ◆ Accept each major sub-component of the system;
- ◆ Participate in, and report to the Project Steering Committee;
- ◆ Formally accept the new system and recommend system implementation; and
- ◆ <Additional responsibilities>.

<If only one business owner, delete following table>

Business Owner	Scope of Ownership
Manager – <Business Unit>	<e.g. System or data holdings etc.>

Table 2. Business Owners

Nominee: <Name>, Project Manager

- ◆ Liaise with the <Business Unit> Acceptance Test Manager in communicating with and managing Departmental and stakeholder expectations; and
- ◆ <Additional responsibilities>.

Nominees: <Name>, <Position>, <Branch/Division>

- ◆ <Define responsibilities>

2.2.5. External Stakeholders

<These include any organisation that send/receive information to/from the system, as detailed in the Test Plan. Actual testing requirements will vary with each organisation. For example:

- ◆ Testing and approving information that is received from the <System Name> System; and
- ◆ Ensuring compliant information is provided to DIER.>

2.2.6. Test Responsibility Matrix

All testing, apart from Acceptance Testing, will be the responsibility of [the system supplier/developer], and will be managed by the of [the system supplier/developer] Project Manager or an appointed Prologic Test Manager.

Acceptance Testing will be the responsibility of the [business unit], and will be managed by the [business unit assigned Test Manager].

The following types of testing will be undertaken:

Test Type	Responsibility	Participant(s)	Phase
Programmer Unit Testing,	Service Provider	Service Provider	Software Development
Functional Unit Testing,	Service Provider	Service Provider	Software Development
System Testing,	Service Provider	Service Provider and Test Team	Software Development (System Test)
Acceptance Testing,	Business Owner	Test Team	Acceptance Test
Implementation confirmation	Business Owner	Test Team and IMB	Implementation

Table 3. Test Responsibility Matrix

All testing shall show the version of the function being tested.

2.3. Acceptance Testing Schedule

The planned schedule of activities for Acceptance Testing is detailed in Table 4.

<Outline the schedule of activities and their time frames, including key milestones. This table may be attached as an appendix.>

Task/Activity	Responsibility	Planned Date(s)
Planning		
Develop test cases		
Setup testing environment		
Testing		
...		
<i>Milestone – Test results documented</i>		
...		
<i>Milestone – Recommended risk strategy</i>		
...		

Table 4. Testing Schedule

2.4. Environment

<Describe in detail the environment that will be used or is required for Acceptance Testing i.e. physical and technical environment.>

The test environment will be established by IMB (DIER) at <Location>.

Technical requirements for Acceptance Testing include:

- ◆ <e.g. printers>
- ◆ <e.g. third-party software, scripts, interfaces>

2.5. Resources

<Describe what resources are required for the testing process to be initiated and completed.>

Physical Resources:

- ◆ <e.g. accommodation>
- ◆ <e.g. IT hardware/software etc.>

Human Resources:

- ◆ <e.g. current Departmental staff>
- ◆ <e.g. additional staff and external consultants etc.>

Financial Resources:

- ◆ <e.g. cost and budget implications>

2.6. Reporting

<Define what reports/records will be developed, produced, and maintained as a result of the Acceptance Testing process.>

The following reports will be generated by the Acceptance Testing process:

- ◆ <e.g. test scripts/cases>
- ◆ <e.g. recommendations and risk strategy>

The following records will be generated by the Acceptance Testing process:

- ◆ <e.g. test input and output information, used and created by conducting the tests>
- ◆ <e.g. test results, both detailed and summary>

All reports and information developed as part of the testing process will be maintained as project records by the <Business Unit>.

2.7. Test Case Report

<Define how the test activities/cases are to be documented and recorded. Table 5 (below) is an example of what information may be necessary for each Test Case. This information would be documented as either a separate document or as an appendix – approach is optional.>

Column heading	Column description
Test Case ID	Number of the test (identifier).
Test Date	Date the test was conducted.
Testing Officer initials	Initials of the officer conducting the test.
Process Name/Code	The Process Name or Code that is being tested.
Test Case Description	Short description of the test being conducted.
Data Input	What data is to be used as input into the test.
Expected Result	What is the expected result from the test.
Actual Results Description	Textual description/comments of the test results.
Result Code	What is the actual result? (Accept/Fail/Not tested/Partial failure).
PR No.	The Problem Review number if the test is not accepted and it is referred for review.

Table 5. Example Test Case Report

3. Testing Prerequisites

This section outlines requirements that must be satisfied and actions that must be implemented prior to the commencement of acceptance testing.

The prerequisites detailed in this section must be in place prior to <Date>. Coordination of these activities is the responsibility of the Acceptance Test Manager.

3.1. Quality Assurance

<If testing a package>

As a package, the <System Name> System must be quality assured in accordance with the manufacturer's specifications prior to delivery and subsequent Acceptance Testing by the Department.

<If testing a developed product>

The <System Name> System will have been subject to the system developer's Quality Assurance process prior to delivery and subsequent Acceptance Testing by the Department.

3.2. Test Cases

Test Cases will be developed for all transactions that require testing. These will be developed by the <Test Team Name> Test Team. Test Cases will be reviewed by <Business Unit> to ensure a consistent and practical approach. Acceptance of Test Cases lies with <Business Owner>.

3.3. Changes to Test Cases

<e.g. If Test Case changes are required, then an Amend-Review-Acceptance process will be followed and all Test Case changes will be reviewed and accepted in the same manner as Test Cases.>

3.4. Collation of Test Data

<Detail the process required for the preparation of data required for the Test Cases i.e. What's required for the various types of transactions, who is responsible for doing it, and who is responsible for reviewing and accepting it?>

4.2. Test Results

<Detail the process of documenting the test results>

The process for documenting results (e.g. by Test Case, by test groupings etc.) is as follows:

- 1.
- 2.
- 3.

Test results will be documented by the Testing Team.

The Test Manager is responsible for collation and review etc.

Code	Description
N	Not tested
A	Acceptable
F	Complete failure
P	Partial failure (test completed)

Table 7. Test Results Scale

The <Business Unit> Test Manager will provide informal reports on the status of testing during Cycle 1.

4.3. Review of Test Results

At the completion of each test cycle, test results will be subjected to informal review and prioritisation by the Testing Team.

<The Responsible Party> will then review the results and sign-off prior to submission to the contractor for remediation. On completion of testing, all test results will be formally reviewed to ensure the testing has been satisfactorily completed and that the expected results were obtained. This review is completed when signed-off by the <Business Unit> Test Coordinator.

4.4. Corrective Action

Any test failure will be discussed with the Acceptance Test and Project Manager and IMB in your Division to determine corrective action for the incident. An incident may be closed once appropriate corrective action has been successfully initiated, completed, and retested.

The process of determining corrective action will be as follows:

<Detail the process to manage test failure. This may involve your IMB Division, the Business Unit, and/or the system supplier.>

4.5. Acceptance and Release

<e.g. When test results have passed review, the <System Name> System will be accepted by the Business Owner.

This process will be managed by the <Business Unit> Test Manager.

Upon acceptance, the <System Name> System will be transferred to the production environment by IMB in the <Division Name> Division.>

4.6. Suspension of Testing

<e.g. Testing may be suspended upon recommendation by the Testing Manager to the <Business Unit> Manager. Suspension will automatically end the current testing cycle. The recommencement of testing will begin with a new testing cycle.>

4.7. Documentation

<e.g. All testing documentation produced as a result of testing activities for the <System Name> System will be maintained as project records and managed by the <Business Unit> Test Manager, in accordance with DIER Corporate Information Management Guidelines as outlined at:

http://www.dierlink.dier.tas.gov.au/corporate_services/information_management/records/index.htm.>