



# ORION II

## System Test Plan

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Appendix A: System Test Scripts

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## 1.0 Introduction

A corporate FCCJ strategic decision was made to re-host the existing mainframe FCCJ applications (ORION and other Legacy systems) onto a UNIX platform, resulting into the birth of ORION II. It is important to determine that ORION II will meet all functional requirements as established by ORION and Legacy.

This test will not only focus on the successful completion of all business processes and successful migration of ORION production data but also to insure that all systems that are critical to the administration of the college and related to ORION II will work appropriately. Some areas to be tested include:

- Programs
- Batch Jobs
- Interfaces
- Databases
- Systems Tools

The system test will involve a centralized effort of IT Resources (FCCJ and SAG) and Functional User community resources. It will be self-contained relying on data migrated from ORION Production database. All testing will be done using newly purchased terminal emulation software.

It is anticipated that this work will begin in January 2004, and extend through mid-2004. Users will be required to use self developed Test Scripts or scripts available on the FCCSC web-sites (as used for Port implementations). It is understood that a dedicated ORION II system test would not be possible as it coincides with ongoing FCCJ business processes and ORION port implementations.

## 2.0 Scope Definition

### ***ORION II System Test Goals:***

The principal goals of the ORION II System Test are:

- Test system functionality and processes that have been re-hosted and possibly adjusted from ORION.
- Provide FCCJ staff with exposure to the re-hosted ORION environment.
- Discover and correct errors prior to implementation release.
- Validate the proper migration of set up and data.

### ***ORION II System Test Scope:***

- All ORION system re-hosting and UNIX required modifications.
- Testing of all ORION interfaces (internal and external).
- Testing delivered on-line and batch processes.
- Testing the delivered report manager functionality (simulated CMS reader functionality).
- Testing of legacy system rewrites.
- Testing of printing procedures.

## 2.1 Out of Scope

Items or areas that are not within the scope of the system test at this stage are:

- Web Interfaces and access????
  - Artemis
  - Touchtone
- External JCL's - Operations

### 3.0 System Test Strategy

In order to meet the objectives, a very specific strategy must be detailed and followed. Below is a list of required steps needed to properly execute the system test:

#### 3.1 Step 1 – Resource and Role Definition

The objective of this step is to identify and assign the needed resources to properly plan, develop and execute the system test. Below is a list of the resources and the role they will play:

**ORION II Test Coordinator.** One individual will be tasked with this role. Responsibilities include: (Herman Möller for FCCJ, Dave Gahrng for SAG)

- Oversee the creation/selection of system test matrix and scripts based on conditions and business processes defined by Port/Interim release implementations;
- Coordinate the test schedule;
- Address any problems as they arise during testing;
- Provide progress reports during testing;
- Facilitate frequent meetings with the test leads; and
- Ensure the leads are provided with the necessary tools to complete the testing as scheduled.
- Update of Error log Excel Spreadsheet

**IT-Applications as Technical Support.** Technical Support is responsible for supporting the system test environment. Responsibilities include: (All IT-Applications staff and SAG Contractors on site)

- Setting up security profiles;
- Investigating errors and possible solutions;
- Applying updates and fixes to the database;
- Resolving problems during system testing;
- Testing fixes;
- Submitting modification fix for approval;
- Scheduling re-execution in system test environment; and
- Monitoring problem reports.

**Functional Specialist:** The Functional Specialists are responsible for executing the system test scripts. Responsibilities include (See Attachment B for User List)

- Signing off on the successfully completed test scripts;
- Advising the technical support of any problems as they arise;
- Providing updates on their progress to *Core Test Group*;
- Ensuring that the testing resources and tools are available; and

**Core Test Group.** This group will consist of one person from each user community and It-Applications (FCCJ & SAG). (see Page 8 for Official Sign-off list)

This role is responsible for supporting and coordinating the functional test team on an as-needed basis. They will be responsible for setting of deadlines and start/completion dates of overall testing. Their primary responsibilities are to facilitate communication between Functional Specialists and IT-Resources

and identifying/reporting error conditions. It will also be this group's decision on a go ahead on system implementation via official sign-off.

### **3.2 Step 2 – System Test Planning and Development**

The objective of this step is to define the goals, objectives, scope, organization, activities, timeline and resources necessary to complete a thorough system test of the ORION II re-hosting.

#### ***Detailed Set Up Requirements***

- Unit test completed.
- System test matrix initiated.
- System test scripts created/selected.
- Identification of Core Test Group.
- User profiles and security created for testing.
- Terminal Emulation Product.
- ORION Production DATA migration.
- Test/Mock interface files created (e.g., Loan processing, Fin-Aid ISIR files, Payroll, Bank Cecks, Workstudy, etc.)
- Batch Processing defined.
- Printers defined.

#### ***Deliverables***

- ORION II System Test Plan
- Terminal Emulation Software
- User Resources Identified and security set up.
- User Orientation
- Objectives
- Strategy
- Time Frame
- Data Migration from ORION Production.
- ORION II System Test Matrix
- System Test Scripts (User defined or from FCCSC Web-Site)
- Problem Report (Error log on Spreadsheet)
- Interface flat files created for testing purposes.

#### ***Completion Criteria***

- All documents drafted and approved by the Core Test Group.
- ORION II Database created and accessible using test user profiles.
- All interface flat files have been tested and accepted by internal/external institutions.

#### ***Resources Responsible***

- ORION II Test Coordinator.
- IT – Applications Technical Support (FCCJ & SAG)
- Functional Specialists (User communities)
- Core Test Group

### 3.3 Step 3 – System Test Execution

Once the planning and preparation has been completed, on 12/11/03 the system test execution can begin. It will be completed by Spring Break 2004. Below is a timetable with specific tasks, dates and resources associated with each task.

SYSTEM TEST DURATION and TASKS		
Date	Task Description	Resource
11/13/03, Thur Test Team	System Test Kick Off Meeting	ORION II Test Coordinator ORION II Technical Support ORION Functional Specialists
12/11/03, Thur Test Team	Follow up System Test Kick off Meeting <ul style="list-style-type: none"> <li>System Test Plan review – Format Approved</li> <li>System Test Schedule review – Schedule selected.</li> <li>Issue reporting procedures review- Accepted.</li> <li>Scripts distributed/review- Accepted.</li> <li>User ID's Identify – In Process.</li> <li>Core Test Group selection-Identified see page8.</li> </ul>	ORION II Test Coordinator ORION II Technical Support ORION Functional Specialists
12/11/03, Thur Test Team	Terminal Emulation acquired. Will be distributed to Key User group as soon as available.	ORION II Test Coordinator On Campus Tech Support
12/11/03 Thur Test Team	User Definitions (UNIX Security set up). For a list of Users identified at this stage see attachment B	UNIX Administrator
01/21/04 Thur Test Team	User Orientation This will be an introduction to Unix Sign-on for all users identified for testing.	Core Test Group
01/18/04 02/21/04 Sun Unix Admin	Data Migration (ORION Production to UNIX) This process still needs to be defined - Orion Production to Orion Acceptance to Orion II Acceptance/TEST	UNIX Administrator
01/14/04 Wed Test Team	Start Up Test meeting	ORION II Test Coordinator ORION II Technical Support ORION Functional Specialists Core Test Group
02/02/04, Mon Test Team	System test begins <ul style="list-style-type: none"> <li>User Enviroment using Test Scripts (Self defined or from FCCSC Web-Site)</li> <li>Testing will be done on a basis of 3 x weeks individual testing by user groups (02/02/04 – 02/20/04</li> <li>1 x week integrated testing 02/23/04 – 02/27/04</li> </ul>	ORION II Test Coordinator ORION II Technical Support ORION Functional Specialists

SYSTEM TEST DURATION and TASKS		
Date	Task Description	Resource
	<ul style="list-style-type: none"> <li>2 x weeks of additional testing where needed till Spring break</li> </ul>	
03/08/04 All	Overall System Review – This will be a final meeting on outstanding/unresolved issues related to testing.	ORION II Test Coordinator ORION II Technical Support ORION Functional Specialists Core Test Group
03/12/04	System Sign-Off	Core Test Group

#### 4.0 Problem Management

During the execution of the system test, problems may be encountered. Problem management provides us with a method to document and resolve the problems identified and complete the system test successfully. Problems will be managed according to the following procedures:

- When the functional specialist encounters a problem, the following trouble-shooting steps should first be followed:
  - Test to see if the condition is identical in ORION.
  - Note if problem can be simulated for correction testing.
  - If problem exists in ORION, a problem log should be opened with FCCSC.
  - Determine if testing can continue.
- If the problem cannot be recreated in ORION, then report the problem to your first line of technical support (IT-Application member assigned to your ORION environment). The first line of technical support will determine if problem needs to be reported to test coordinator to be logged on error spreadsheet. The error will be addressed according to IT-Applications' procedures and feedback will be given to Core Test Group. If the test script encountering problems has subsequent dependant test scripts, those test scripts must be put aside until the problem is resolved.
- Once the problem is logged, it will be assigned to available IT resource.
- Each morning a meeting will be held to discuss the new problems encountered, the status of outstanding problems and the resolutions to closed problems. The resolution to the problem will be provided that meets the needs of all campuses. The resolution will be verified by the functional specialist that reported the problem, so they can complete their testing.
- If a resolution is unavailable, a case will need to be opened with SAG. Depending on the priority of the problem, it may be necessary to readdress the problem when a resolution is provided and retested

it at a later date. All unresolved errors will be discussed during the status meetings and retesting schedules will be determined at that time.

#### 4.1 Problem Report

Problems will be recorded on an Excel spreadsheet with x-reference to origination of error. The System Test Excel spreadsheet will include the following information:

- Case ID: The unique problem identification number assigned to the particular test problem.
- Individual Assigned: The person who will own the problem and see that it is resolved.
- Requester: The person who executed the script and initiated the problem report.
- Test Script Number. The number of the test script that was executed (i.e. HR001.001)(or any identification number on test script)
- Priority: The overall priority of the problem. The table below will assist in determining the priority of the problem.

Priority	Description
Urgent(1)	<b>Impedes progress of testing, application will not meet requirements. Retesting required.</b>
High(2)	Testing may continue but may impact other areas of application/process if not resolved. Application functions but not according to original business requirements. Retesting needed.
Medium(3)	Issues, possibly process related. Does not impact testing progress or data integrity. Should be resolved prior to completing of system test. Retesting optional.
Low(4)	Minor issues, possibly process related. Does not impact testing progress or data integrity. Should be resolved prior to final user acceptance to resolve discrepancies in procedures and system configuration. Miscellaneous clean-up items. Retesting not needed.

- Problem Summary: The high level description of the problem.
- Status: The current status of the problem (development, migration, in test).
- Date/Time Resolved: The date and time the problem was resolved
- Resolution Summary. The description of how the problem will be resolved and re-tested.

#### 5.0 Approval Criteria

The functional specialist has the authority to sign off on the application functionality upon completion of each test cycle. Test Scripts will be used for this purpose. The Core Test group will sign-off on the Official Sign-off sheet at the end of this document. An Implementation Checklist will be part of an implementation plan that will be drafted prior to implementation to production. This checklist will be used as a second level of assurance that all processes were tested.

Approval criteria will be determined as follows:

- Expected results must match actual results to be deemed executed successfully.

##### **Deliverables**

- *Completed test scripts*
- *Completed issues log*
- *Completed problem reports*
- *Any hardcopy output / reports*

##### **Completion Criteria**

- All processes complete successfully providing the expected results
- System Test Scripts
- Problem Report

## 5.1 Official Sign-Off

ORION II System Test Acceptance form:

Core Test Group: by its signature below hereby confirms FCCJ's acceptance of Orion II User Test Phase.

User/IT Area	Name	Title	Date	Signature
ACCOUNTS PAYABLE	Judy Bresnahan	AP Manager Accountant IV		
CREDIT & COLLECTIONS	Darlene Pike	Bursar		
FINANCIAL-AID	Mary Cauley	Contractor to FAO		
FINANCE	Catherine Komarek	Assistant Controller		
PAYROLL	Dot Blevin	Payrol Supervisor		
PURCHASING	Larry Snell	AVP Purchasing & Business Services		
STUDENTS	Lori Collins	Enrollment Services & Student System Manager		
HUMAN RESOURCES	Debbie Stewart	HR & Records Manager		
IT-APPS	Herman Möller	Senior Systems Analyst		
E-SYSTEMS	Dennis Reiman	Director E- Ssystems		
IT-MANAGEMENT	Dr. Norman Schussler	AVP – Educational Technology; CTO; Associate CIO		