RPP-6251
Revision 0

Dynamic Object Oriented Requirements System (DOORS), System Test Plan

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

CH2MHILL
Hanford Group, Inc.
Richland, Washington

Contractor for the U.S. Department of Energy
Office of River Protection under Contract DE-AC06-99RL14047

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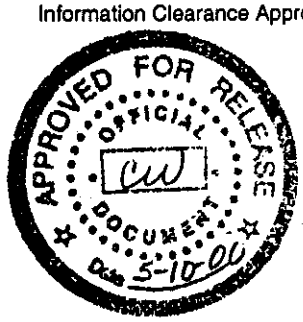

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A. L. Johnson
Lockheed Martin Services, Incorporated

Date Published
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TEST PLAN APPROVALS

Nancy J. Milliken, CHG, DOORS Implementation Project Manager — Date: 4/7/00

Adria L. Johnson, LMSI, SD&I, DOORS Project Lead — Date: 4/7/2000

William J. Jones, LMSI, SD&I, SQA/CM Acting Manager — Date: 4/10/2000

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1 INTRODUCTION

1.1 Purpose

The U. S. Department of Energy, Office of River Protection (ORP) will use the Dynamic Object Oriented Requirements System (DOORS) as a tool to assist in identifying, capturing, and maintaining the necessary and sufficient set of requirements for accomplishing the ORP mission. By managing requirements as one integrated set, the ORP will be able to carry out its mission more efficiently and effectively.

DOORS is a Commercial-Off-The-Shelf (COTS) requirements management tool. The tool has not been customized for the use of the PIO, at this time.

1.2 Scope

This test plan will be used as the primary medium for communicating acceptance testing criteria. It will include the testing scenarios created to test the requirements listed in RPP-5865, *Office of River Protection, Project Integration Office, Requirements Management System, Requirements Specification.* This test plan will also address other system testing needs, as determined by the DOORS technical team.

This test plan is limited to the use of the DOORS tool, no data will be verified or tested. Testing will be performed to demonstrate the high level ability for the tool to meet the requirements. It does not apply to manual requirements management business processes defined by the user.

1.3 Overview

The ORP Project Integration Office (PIO) has been tasked with the identification, capture, and maintenance of requirements imposed upon the River Protection Project (RPP). The PIO Requirements Management team has identified an initial set of source documents that will be the first to be entered into DOORS. User defined attributes will be assigned to each of the objects created within the source document modules.

1.4 Definitions

Project - The highest level of distinction within DOORS. Each project is a unique database that has its own independent set of users who can access information contained within it.

Modules - All information contained in DOORS is stored in Modules. DOORS module classes include formal, descriptive, and link.

Formal Module: A DOORS module containing structured sets of similar information.

Descriptive Module: A DOORS module containing unstructured source information.

Link Module: A DOORS module containing and managing relationships between other data elements.

Objects - A DOORS Object is the basic building block of every DOORS module, and typically contains a requirement. Objects can be created deleted, edited, copied, and moved. Each object has a unique identifier that cannot be changed.

Attributes - All modules, objects, and links possess Attributes, both system defined and user defined. System defined attributes include a unique identifier, creation date and when the object was last modified. Any number of user defined attributes can be created.

History - All changes made to modules, objects, and attributes are recorded in module history. The module history records who made the change, when, and what the change was.

1.5 Acronyms

BNFL	British Nuclear Fuels, Limited
CHG	CH2M Hill Hanford Group
CIO	Chief Information Officer
COTS	Commercial Off-The-Shelf
CP	Change Proposal
DOE	U. S. Department of Energy
DOORS	Dynamic Object Oriented Requirements System
DXL	DOORS Extension Language
HLAN	Hanford Local Area Network
LMSI	Lockheed Martin Services, Incorporated
NT	New Technology
ORP	U. S. Department of Energy, Office of River Protection
OS	Operating System
PHMC	Project Hanford Management Contract
PIO	Project Integration Office
PNNL	Pacific Northwest National Laboratory
PRRB	Production Readiness Review Board
QSS	Quality Systems and Software, Incorporated
RL	U. S. Department of Energy, Richland Operations Office
RPP	River Protection Project
SQL	Standard Query Language

2 TEST PLAN

2.1 Test Items

A variation of the Requirements Traceability Matrix provides the description for the testing of customer requirements. Refer to Appendix A. The matrix was derived from RPP-5865, *Office of River Protection, Project Integration Office, Requirements Management System, Requirements Specification.*

Additional testing will be performed on infrastructure, network, and server test cases, as determined by the LMSI technical team.

Test cases may provide explicit test steps for testing a requirement but where such details are not provided it is expected that a knowledgeable tester will use his or her knowledge of DOORS and of the requirements to appropriately test a requirement.

The LMSI DOORS technical team will perform all test cases. The DOORS users will be invited to participate in the testing. During user testing, members of the LMSI technical team will be available for providing additional information about interpreting the makeup and intent of specific test cases.

2.2 Features to Test/not Test

Every requirement listed in the Requirements Traceability Matrix was evaluated for testing criteria. DOORS is a COTS product and not all of the available functionality will be used by the PIO. This test plan focuses on the functionality needed to fulfill the user-defined requirements. Requirements that will be tested are sorted into related groups and will be tested in test cases of the following areas:

- Change Proposal System
- User Access
- Filtering, Sorting, and Reporting
- Project, Module, and Attribute Creation and Manipulation
- DOORSNet

The following requirements do not refer to the use of the tool or do not contain enough specific information to warrant testing:

No.	Requirement	Resolution
5	Their querying and reporting will be infrequent. Any electronic tool must be intuitive in order to keep support costs to a minimum.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.
10	Will identify potential new requirements and make recommendations to ORP management and a requirements change board.	Identification of new requirements is developed through human interface.
11	Will make recommendations to ORP management and a requirements change board.	Recommendations are made through a human interface.

No.	Requirement	Resolution
16	Will identify potential new interface requirements and make recommendations to ORP management and a requirements change board.	Identification of new requirements is developed through human interface.
17	Will make recommendations to ORP management and a requirements change board.	Recommendations are made through human interface.
23	They will be very infrequent users of the ORP-PIO Requirements management Database.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.
24	No requirements defined.	N/A
25	Will also oversee the change control process for requirements.	Oversight is performed through a human interface.
27	Will sometimes query the requirements database.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.
32	The ORP Requirements Management System must be able to contain all requirements as a single integrated set.	The ORP Requirements will be located in a single project.
33	There will be electronic access to this integrated set of ORP Requirements	The ORP Requirements project can be accessed electronically directly through DOORS or through the web front-end DOORSNet.
37	While the requirement data may be copied to relational databases for reporting purposes, the primary database will be the only place where requirements can be changed.	Changes to requirements will only be made within the DOORS database. Data feeds from relational databases will be procedurally prohibited.
45	The system shall be capable of generating reports at specific times while unattended (batch reporting).	DOORS Extension Language (DXL) can be used to generate reports. Batch reporting can be setup for nighttime processing.
50	The system must provide export capability of all requirements data including hierarchical relationships, links between requirements, and user-defined attributes to the relational databases (such as Access, SQL Server, and Oracle).	DOORS provides Export to SQL functionality. This functionality will not be exercised unless specifically requested.
59	The system must have the capability to store an Approval Authority Matrix that executes the threshold criteria for approving a change. For each authorization level, the matrix may have selected attributes based on risk; scope, schedule, and cost to determine change the criteria or threshold. By using varying change classes, assurance is provided that the processing, review, and disposition of changes to requirements are consistent with the significance of the change and the	DOORS can store the Approval Authority Matrix. DOORS structure allows change class tracking, but does not control the actual changes.

No.	Requirement	Resolution
	approvers(s).	
73	Impact analysis assessment requires the judgment and technical analysis of experts. It generally entails determining the cost and schedule impacts of changes to work scope. The PIO will be dependent on the contractors to perform much of the impact analysis.	Impact analysis is performed through human interface.
88	Ad hoc reporting must not require the services of a computer programmer.	DOORS provides reporting capabilities that allow the user to filter and define the view to be reported on.
89	The occasional user who wants to be able to view subsets of requirements must not require any training.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.
90	Training for data editing shall take less than 3 days.	"Applying DOORS" training takes two days to complete.
92	The system must provide data backup and restore capabilities.	DOORS provides the ability to archive and restore modules and projects which can be used for backup purposes. Backup of DOORS data will be performed through network server back ups.
100	View only access to the requirements database will be available to all those involved in requirements management.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.
101	This view only access must be provided at no cost to the viewer from their workstation.	General use of DOORS will be via DOORSNet, which is accessed through the user's internet browser.
102	No more than 1 hour of training will be required.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.
105	No training must be necessary.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.
109	No more than 2 days of training will be necessary	"Applying DOORS" training is requires two days to complete.
111	No more than 2 days of training will be necessary.	"Applying DOORS" training is requires two days to complete. Two hour overview sessions will be provided for the DOORSNet users.
112	The system must be available 10 hours per day, 7 days a week from 7 a.m. - 5 p.m.	DOORS servers are available during core business hours 7a.m. – 5 p.m. standard work days.
113	The software must execute in a client server or web environment.	DOORS executes in a client server environment. DOORSNet executes in a web environment.
114	The client portion of the tool must be compatible with Windows 95/98/NT.	DOORS client is compatible with Windows 95/98/NT.

No.	Requirement	Resolution
115	The server portion of the tool must run in an NT environment	DOORS server portion runs in an NT environment.
117	All data must be portable to the following relational databases: Access, SQL Server, and Oracle.	DOORS provides Export to SQL functionality. This functionality will not be exercised unless specifically requested.
118	The Network license policy must be acceptable to the Chief Information Officer.	RPP CIO approves the Network licensing policy for DOORS.
119	Software updates must be released and implemented with less than 4 hours of user downtime.	Software updates will be implemented in less than 4 hours of user downtime.
120	Vendor must allow reproduction of training materials for general user training.	If needed, an arrangement will be made with the vendor, QSS.
124	The software must be Y2K Compliant.	DOORS & DOORSNet are Y2K compliant
125	The software must be customizable.	DOORS is customizable with the DOORS Extension Language (DXL).

2.3 Deliverables

This test plan including associated test cases and results will be provided as the deliverable for acceptance testing. Customer acceptance signatures will be included in this test plan.

2.4 Acceptance Criteria

Test results should meet resolution of requirements completely. In any other instance, test cases and results will be reviewed with the customer. Acceptance of test plan, cases, results, and exceptions will be indicated through signatures within this plan.

3 TESTING LOGISTICS

3.1 Testing Tasks

In preparation for the performance of test cases included in this plan, testing will be scheduled, a testing location will be confirmed, testing materials will be prepared, and communication of details will be made to all testing parties.

Data conversion will not be required to perform the test cases. Input will be performed manually. In the case of import testing, standard electronic files will be made available to all testers.

3.2 Environmental Needs

The following environmental needs have been identified for this test plan:

Personnel	LMSI - All of the technical team will participate in the testing PIO - Requirements Management team members will be invited to participate in the testing
Facilities	A single location will be arranged for testing.
Equipment	Several workstations will be available for testing.
Time Allocation	Two complete days will be reserved for testing.

3.3 Staffing and Training

All of the LMSI DOORS technical team will participate in the testing. The Requirements Management team members will be invited to participate in the testing. All testers will be expected to have attended DOORS training or at least have a familiarity of the application.

3.4 Schedule

The following are the DOORS implementation testing milestones.

Test Plan Draft Review	March 31, 2000
Test Plan Approval	April 7, 2000
Perform Test Cases	April 10, 2000 - April 13, 2000
Acceptance Sign-off	April 13, 2000

3.5 Risks and Contingencies

No high-level risks are identified for the testing.

4 ROLES AND RESPONSIBILITIES

4.1 Requirements Management Team - System Users

Users will be invited to perform the test cases that test those requirements that they directly utilize during the course of their normal user activities. They will not normally conduct acceptance testing of those requirements that occur behind the scenes, such as automated feed processes.

4.2 Lockheed Martin Services, Inc. - DOORS Technical Team

LMSI staff will perform all test cases. The LMSI staff will also be responsible for testing items that occur behind the scenes and which are not visible to the user. Examples would be licensing allocation, server functions, or automated batch processes that are not user options in the application.

4.3 Project Management & Lead Responsibilities

Projects Managers and Leads from both LMSI SD&I and the PIO Requirements Management Team are expected to review test results and provide guidance, direction, and suggestions for improving the testing process. Their acceptance signatures will be included within this test plan.

5 TESTING SUMMARY RESULTS

Testing summary results for the PIO DOORS implementation project were positive. Although no users elected to perform testing, LMSI DOORS technical staff performed each test case at least twice.

Testing participants included:

- Adria Johnson, LMSI
- Jennifer Kuklinski, LMSI
- Steve McConnell, LMSI
- Rick Strickland, LMSI
- Joyce Caldwell, LMSI

The following anomalies discovered during testing do not seriously affect system use. The issues be investigated and resolved.

Test Case #	Issue	Workaround
DOORS-6.04	DOORS Change Proposal (CP) Notify Message	CP Review Manager can reset CP preferences
DOORS-6.06	DOORSNet Connection Error Message	User can select "back" and reload web page

These anomalies and other testing issues that do not affect the system are described in detail in Section 5.1, *Test Case Discrepancy and Resolution Matrix.*

5.1 Test Case Discrepancy and Resolution Matrix

Test Case / Step #	Instruction Summary	Expected Results	Actual Result / Discrepancy	Resolution	Review Initials
DOORS-1	Various	Various	Clarification or correction needed in test steps 8, 20, 21, 23, 34, 39, 41, 43, and 44.	***No affect on system or test results.*** Test cases will be corrected for future testing.	NM 4/13/00
DOORS-2 / Step 7	Export DOORS module to Microsoft Excel. Close Excel when finished.	Microsoft Excel will contain all objects from Test Excel module and will close without incident	• DOORS displayed error "OLE Method Failed. Problem with OLE Argument names." • Excel did not close and only displayed 159 of 255 records (objects). • DOORS was "frozen" and required Windows Close Program/End Task to close window.	Rebooted workstation and problem could not be recreated.	NM 4/13/00
DOORS-5 / Steps 37-43	Access for "LMSI Test Write" user to be changed to read-only on first object in TPA module.	"LMSI Test Write" user should have read-only access to only the first object in the TPA module.	"LMSI Test Write" user appeared to have read-only access to ALL objects in the TPA module.	Investigation of problem revealed that only the children of the first object were affected. The number of affected objects is approximately 20, which would result in several screens of information. Testers may not have paged down far enough to notice the difference in access. ***This is the correct result.***	NM 4/13/00
DOORS-5	Various	Various	Sequence of test steps in coordination with varied log-on access can cause a fail state on some steps. When test case author explained sequence, discrepancies were eliminated.	***No affect on system test results.*** Test cases will be changed for future testing.	NM 4/13/00
DOORS-6.04	Various	Various	During navigation to new pages, Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review Manager	LMSI will investigate and contact QSS to inquire if an override is available.	NM 4/13/00

NM 4/13/00

Test Case / Step #	Instruction Summary	Expected Results	Actual Result / Discrepancy	Resolution	Review Initials
			to run the change proposal setup tool again." Testers did not have access to the log-on for the Review Manager, due to the test data being a copy of an existing user project. Therefore, the preferences section for "LMSI Test Read" user could not be created. This resulted in the notification message being displayed several times for each tester.		
DOORS-6.06 / Steps 2-3	Four users open various modules within the same project. All four users start open at a synchronized time.	All four users should be able to open their respective modules within the acceptable time range.	In each instance, one or two testers received the DOORSNet error message "DOORSNet has reported the following error. Could not connect to the DOORSNet Server. The server may not be running, or it may be servicing other requests at the moment, in which case you should try again in a short while." Testers receiving error were able to open their respective modules they navigated back to the DOORSNet View Selection page and selected the module name again, and if the other testers did not open their respective modules at the same time.	LMSI will investigate solutions and contact QSS, if needed.	NM 4/13/00

NM 4/13/00

6 CUSTOMER ACCEPTANCE

The Dynamic Object Oriented Requirements System (DOORS) has been satisfactorily tested by LMSI personnel and/or PIO test representatives. This system is accepted by the PIO as having achieved the requirements for which Lockheed Martin Services, Inc., Richland, implemented it.

Customer Acceptance

Nancy J. Milliken, CHG, PIO DOORS Implementation Project Manager — Date 4/13/00

Ronald L. Nelson, CHG, PIO Chief Information Officer — Date 4/19/00

Performing Organization

Terri M. Lutter, LMSI/SD&I, Program Manager — Date 4-17-00

Adria L. Johnson, LMSI/SD&I, Project Lead — Date 4-17-00

7 APPENDIX A - REQUIREMENTS TRACEABILITY MATRIX

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
1	DOE ORP Staff	Will query on subsets of requirements and look at relationships between requirements.	By defining filters you can determine which objects are displayed in formal or descriptive modules. They are selected for display on the basis of filter criteria, which you define. Filters search all string and text attributes.	Filter	DOORS-2	Yes
2	DOE ORP Staff	Will generate the requirement's section of new contracts from the requirements database.	The Export to Word tool creates a Microsoft Word document, and exports the current view to it. The structure of the document is derived from the structure of the current view.	Export	DOORS-2	Yes
3	DOE ORP Staff	Will extract the requirements set associated with a life cycle phase and use it as a checklist to see if all the requirements for that phase have been met.	The Filter tool can be used to extract the noted requirements and export it to a tool such as Word or Excel to create a checklist.	Export, Filter	DOORS-2	Yes
4	DOE ORP Staff	Will not update requirements.	Read only access will be granted to limit the user from updating requirements.	User Access	DOORS-5	Yes
5	DOE ORP Staff	Their querying and reporting will be infrequent. Any electronic tool must be intuitive in order to keep support costs to a minimum.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.	No Test	NA	Yes
6	Initial Load Reviewers	Will load requirements into the PIO Requirements database.	Read/Write access will be granted allowing the users to load requirements into the PIO Requirements database.	User Access	DOORS-5	Yes
7	Initial Load Reviewers	Will need to be able to input, edit, and delete requirements; split compound requirements; input attribute values for requirements; view subsets of the requirements; and flag candidates for challenge.	Read/Write access will be granted allowing the users to input, edit, and delete requirements; split compound requirements; input attribute values for requirements; view subsets of the requirements; and flag candidates for challenge.	Object Attributes	DOORS-1	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
8	Initial Load Reviewers	This user group will need read/write access to the requirements management tool. Once the requirements are baselined, this user group will disband.	Read/Write access will be granted to users identified as "Initial Load Reviewers"	User Access	DOORS-5	Yes
9	Requirements Management Team	Will periodically examine the requirements to determine their continued applicability	Read/Write access will be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database.	Filter, Report	DOORS-2	Yes
10	Requirements Management Team	Will identify potential new requirements and make recommendations to ORP management and a requirements change board.	Identification of new requirements is developed through human interface.	No Test	NA	Yes
11	Requirements Management Team	Will make recommendations to ORP management and a requirements change board.	Recommendations are made through a human interface.	No Test	NA	Yes
12	Requirements Management Team	Will change the values of requirement attributes and add new links between requirements without going through the requirements change board.	Read/Write access will allow the user to update attributes and create links.	Attributes, Links	DOORS-1	Yes
13	Requirements Management Team	Will provide information about requirements to contractors and ORP management.	Read/Write access will allow the user to read, filter, sort and provide reports as requested.	Filter, Report	DOORS-2	Yes
14	Requirements Management Team	This team will have requirements experts and will be heavy users (Estimate: 3 - 5 people) of the requirements database. This user group will need read/write access to the requirements management tool.	Read/Write access will be granted.	User Access	DOORS-5	Yes
15	Interface Control Team	Will periodically examine the requirements in the system for interfaces to determine their	Read/Write access will be granted allowing users to read, filter, sort, and report on all requirements in the	Filter, Report, User Access	DOORS-2, DOORS-5	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
		continued applicability	Requirements Management database.			
16	Interface Control Team	Will identify potential new interface requirements and make recommendations to ORP management and a requirements change board.	Identification of new requirements is developed through human interface.	No Test	NA	Yes
17	Interface Control Team	Will make recommendations to ORP management and a requirements change board.	Recommendations are made through human interface.	No Test	NA	Yes
18	Interface Control Team	Will query the database to determine what entities are affected by a change in a requirement.	Read/Write access will be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database.	Filter, Report, User Access	DOORS-2, DOORS-5	Yes
19	Interface Control Team	Will query the database to determine which entities are responsible for the execution of a requirement.	Read/Write access will be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database.	Filter, Report, User Access	DOORS-2, DOORS-5	Yes
20	Interface Control Team	This team will have experts in interface requirements (Estimate: 2 - 4 people). The team will need read/write access to the requirements management tool.	Read/Write access will be granted.	User Access	DOORS-5	Yes
21	Project Management Plan Team	May query subsets of requirements and look at relationships between requirements. However, for most of their work they will be dependent on data from the contractors.	Read Only or DOORSNet access will provide the user the ability to review the ORP Requirements and their related links.	User Access (DOORS & DOORSNet)	DOORS-5	Yes
22	Project Management Plan Team	Wants to be able to generate the requirements' section of the Mission Analysis Report from the Requirements database.	The Export to Word tool creates a Microsoft Word document, and exports the current view to it. The structure of the document is derived from the structure of the current view.	Export	DOORS-2	Yes
23	Project Management	They will be very infrequent users of the ORP-PIO Requirements	General use of DOORS will be via DOORSNet, which requires minimal	No Test	NA	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	Plan Team	management Database.	introduction for use.			
24	Performance Measurement Team	No requirements defined.	N/A	No Test	NA	Yes
25	Change Control Team	Will also oversee the change control process for requirements.	Oversight is performed through a human interface.	No Test	NA	Yes
26	Change Control Team	Will determine which requirements are part of the technical baseline and what level of approval is necessary for a change to a particular requirement.	Read Only or DOORSNet access can be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database.	User Access (DOORS & DOORSNet)	DOORS-5	Yes
27	Change Control Team	Will sometimes query the requirements database.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.	No Test	NA	Yes
28	Life Cycle Team	Must to be able to get a listing of the requirements that relate to important milestones in order to assist with 'What-If' analysis. The completion date is a key attribute of these requirements and needs to be captured.	Read Only or DOORSNet access can be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database.	User Access	DOORS-5	Yes
29	Staff responsible for contractor requirements management	Contractor staff, who are responsible for managing requirements and finding ways to complete the mission more efficiently and effectively, need to be able to view the parent requirements from which contractor requirements may have been derived, trace relationships between requirements, and suggest changes to requirements.	DOORSNet access can be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database. Users can trace relationships through links displayed. DOORSNet also provides the capability to submit suggested changes to requirements.	DOORSNet, Links, Change Proposal System	DOORS-4	Yes
30	Data Administrator	People in this role are experts in how the electronic system(s) works, are familiar with the data, and act as	Read/Write/Change access will be granted to Data Administrators. This type of access will allow them to read,	User Access	DOORS-5	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
		gatekeeper. They will have the capability to make changes to the data structures, backup and restore data, and assist users access the data. They may also apply changes that have been authorized by the change board.	write, and change others' access.			
31	System Administrator	This is a computer professional who will be responsible for managing the hardware and installing new versions of the software. System Administrators do not need to be familiar with the data or the internals of any electronic tools. They need to know the computer hardware and execute operating system software and software installation procedures.	LMSI technical staff will perform system administration duties.	User Access	DOORS-5	Yes
32	Maintain a single, up-to-date, ORP requirements baseline	The ORP Requirements Management System must be able to contain all requirements as a single integrated set.	The ORP Requirements will be located in a single project.	No Test	NA	Yes
33	Maintain a single, up-to-date, ORP requirements baseline	There will be electronic access to this integrated set of ORP Requirements	The ORP Requirements project can be accessed electronically directly through DOORS or through the web front-end DOORSNet.	No Test	NA	Yes
34	Maintain a single, up-to-date, ORP requirements baseline	The requirements will be baselined and an electronic change control mechanism must be provided.	DOORS provides a baseline functionality with electronic change control between versions.	Baseline versions	DOORS-2	Yes
35	Maintain a single, up-to-	Previous versions of the requirements will be available.	DOORS allows users to view previous versions.	Baseline versions	DOORS-2	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	date, ORP requirements baseline					
36	Maintain a single, up-to-date, ORP requirements baseline	The system will be able to report on the differences between versions	DOORS Extension Language (DXL) could be used to report version differences.	Baseline versions	DOORS-2	Yes
37	Maintain a single, up-to-date, ORP requirements baseline	While the requirement data may be copied to relational databases for reporting purposes, the primary database will be the only place where requirements can be changed.	Data feeds from relational databases will be procedurally prohibited. Changes to requirements will only be made within the DOORS database.	No Test	NA	Yes
38	Maintain a single, up-to-date, ORP requirements baseline	Most of the requirements will be extracted from existing documents. These source documents must be available for reference, linked to the associated requirements in the requirements database, and under configuration control. These documents may or may not be stored in the database.	Official record copies of source documents will be managed in the Hanford site records management systems. Information copies of source documents can be available for electronic reference and linked to associated requirements if they are stored in the DOORS database.	Descriptive Module	DOORS-1	Yes
39	Provide flexible reporting – Report Content	Reports shall include an arbitrary number of requirements attributes that can be specified by the user. (Attribute examples: Responsible Organization, Major Facility)	DOORS provides reporting capabilities that allow the user to filter and define the view to be reported on.	Reporting	DOORS-2	Yes
40	Provide flexible reporting – Report Content	Reporting may include the entire requirements' matrix or a selected subset of the matrix.	DOORS provides reporting capabilities that allow the user to filter and define the view to be reported on.	Filter, Reporting	DOORS-2	Yes
41	Provide flexible	Requirements matrix shall be capable of reporting in textual or	DOORS supports textual or graphic format.	Reporting	DOORS-2	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	reporting – Report Content	graphical format.				
42	Provide flexible reporting – Report Content	Requirements may be grouped hierarchically, if so drill-down capabilities shall be provided so that users can get an overview of the requirement categories followed by increasing levels of detail in the category of interest.	Users can view requirements at any object level. Higher object level numbers represent higher levels of detail.	Views (Levels)	DOORS-2	Yes
43	Provide flexible reporting – Report Content	The system shall report requirements in such a manner that the output may be used as a legal document following a user described format. For example, the PIO Requirements Management system will be able to generate the requirement's section for the contracts.	The Export to Word tool creates a Microsoft Word document, and exports the current view to it. The structure of the document is derived from the structure of the current view.	Export	DOORS-2	Yes
44	Provide flexible reporting – Report Availability	The system shall be able to generate reports to the screen, paper, and the web (HTML).	DOORS can provide reports to the screen, which in turn can be printed to paper. The DOORS Export to HTML functionality and /or DOORSNet can provide HTML reports.	Export, Reporting (DOORS & DOORSNet)	DOORS-2	Yes
45	Provide flexible reporting – Report Availability	The system shall be capable of generating reports at specific times while unattended (batch reporting).	DOORS Extension Language (DXL) can be used to generate reports. Batch reporting can be setup for night time processing.	No Test - Batch reporting has not been requested.	NA	Yes
46	Facilitate requirements analysis	While only people can clarify requirements, the system must assist in the identification of ambiguous requirements. An example of this assistance is the tagging of requirements based on the inclusion	The DOORS Plain Text Import tool provides the ability to define keywords to assist in the identification of requirements.	Plain Text Import	DOORS-1	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
		or exclusion of keywords such as 'must', 'shall', and 'will'. This list of keywords must be customizable.				
47	Facilitate requirements analysis	The system must assist in the splitting of compound requirements into single, unambiguous requirements. The user must be able to indicate where the requirement is to be split and the system must then create the new requirements.	DOORS provides the functionality to split objects.	Object Split	DOORS-1	Yes
48	Facilitate requirements analysis	The system must be able to tag a requirement with multiple, user-defined attributes and capture values for these attributes. Examples of attributes are responsible organization, ORP function, life-cycle phase.	DOORS provides the ability to apply user defined attributes.	Attributes - Create	DOORS-1	Yes
49	Facilitate requirements analysis	The system must provide the capability to export a requirements subset for further analysis (e.g., into Excel).	DOORS provides export functionality.	Export	DOORS-2	Yes
50	Facilitate requirements analysis	The system must provide export capability of all requirements data including hierarchical relationships, links between requirements, and user-defined attributes to the relational databases (such as Access, SQL Server, and Oracle).	DOORS provides Export to SQL functionality. This functionality will not be exercised unless specifically requested.	No Test	NA	Yes
51	Facilitate requirements analysis	The system must allow the use of color to identify related requirements.	DOORS provides the ability to change colors of objects.	Attribute/Object Color	DOORS-1	Yes
52	Facilitate the change control	The drivers for internal change can be bottom up or top down. The change control team will have a	Changes to requirements in the ORP Requirements project will be superceded by the change of the requirement in the	Change Proposal System	DOORS-3	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	process	process to handle both and the interface team will have processes to manage all interfaces changes. The PIO Requirements Management System must assist both of these teams in managing changes to requirements. Additionally, the system must help track changes to externally generated requirements such as DOE Orders, regulations, etc.	official source documents. DOORSNet provides the ability to capture and track proposed changes throughout the process.			
53	Change Notification for Requirements under the Control of ORP	The system must accommodate unrestricted initiating access for change requests by all individuals and organizational entities within the RPP.	DOORSNet provides the ability to set up a "Guest" user that can submit proposed changes without the need for an actual DOORS user account.	User Access	DOORS-5	Yes
54	Change Notification for Requirements under the Control of ORP	The proposed change must be captured.	DOORSNet provides an entry screen for proposed changes, including the justification for the change and the user submitting the proposal.	Change Proposal System	DOORS-3	Yes
55	Change Notification for Requirements under the Control of ORP	The justification for the proposed change must be captured.	DOORSNet provides an entry screen for proposed changes, including the justification for the change and the user submitting the proposal.	Change Proposal System	DOORS-3	Yes
56	Change Notification	The person proposing the change and the date of the proposal will also	DOORSNet provides an entry screen for proposed changes, including the	Change Proposal	DOORS-3	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	for Requirements under the Control of ORP	be captured.	justification for the change and the user submitting the proposal.	System		
57	Change Notification for Requirements Not under the Control of ORP	The persons responsible for monitoring external changes must be able to capture that a change is likely or that a change has occurred.	DOORSNet provides the ability to capture and track proposed changes throughout the process.	Change Proposal System	DOORS-3	Yes
58	Change Notification for Requirements Not under the Control of ORP	The responsible persons will analyze the change and its impact. The system must capture a summarization of their analysis and their recommendation as to whether or not this requirement should be challenged.	The DOORS Change Proposal system provides an entry screen for reviews to supply comments.	Change Proposal System	DOORS-3	Yes
59	Change Control Process	The system must have the capability to store an Approval Authority Matrix that executes the threshold criteria for approving a change. For each authorization level, the matrix may have selected attributes based on risk; scope, schedule, and cost to determine change the criteria or threshold. By using varying change classes, assurance is provided that the processing, review, and disposition of changes to requirements are consistent with the significance of the change and the approvers(s).	DOORS can store the Approval Authority Matrix. DOORS structure allows change class tracking, but does not control the actual changes.	No Test - Manual Process is needed for this requirement	NA	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
60	Change Control Process	The matrix must be viewable and updateable by a member of the change control team.	DOORS can be configured to only allow a member of the change control team to have access to the matrix.	User Access	DOORS-5	Yes
61	Change Control Process	Ideally, a link to the Human Resource or Payroll system would capture who is at a certain authorization level. This link would also capture delegations of authority. If such a link cannot be made available, then this system will have to have a mechanism to link individuals to authorization levels.	Individuals can be linked to authorization levels manually.	Link	DOORS-1	Yes
62	Change Control Process	The system must have the capability to notify individuals who are responsible for reviewing proposed changes to the requirements baseline that changes have been requested.	DOORS provides the ability to receive email notifications in conjunction with change proposals for the users submitting changes, not the person responsible for reviewing the proposals.	Change Proposal System, Email Notify	DOORS-3	No
63	Change Control Process	While much of the impact analysis work will be manual, the system must be capable of showing related requirements and any selected attributes of the requirements (see sections on flexible reporting and impact analysis)	DOORS provides reporting capabilities that allow the user to filter and define the view to be reported on.	Filter, Report	DOORS-2	Yes
64	Change Control Process	The system must be capable of receiving inputs from the reviewers as to their approval or disapproval of a proposed change to the requirements baseline and the reason for their decision.	The DOORS Change Proposal system provides an entry screen for reviews to indicate status of requirement changes and supply comments.	Change Proposal System	DOORS-3	Yes
65	Change Control Process	The system must be capable of producing reports of the history of all changes to a requirement and the justification for the changes.	DOORS provide historical tracking features.	Change Proposal System, History	DOORS-3	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
66	Change Control Process	The system must be capable of producing a summary of all proposed changes and their status.	DOORS provides the ability to review proposed changes and status.	Change Proposal System, DOORSNet	DOORS-4	Yes
67	Change Control Process	The proposer will be able to see the status of a proposed change.	Proposers of changes to requirements have access to review the status of their proposals	Change Proposal System	DOORS-3	Yes
68	Facilitate the requirements challenge process	The system must allow requirements to be tagged with various attributes, which will make it easy to query on candidates for challenges (See section on flexible reporting).	DOORS allows the creation of user defined attributes.	Attribute	DOORS-1	Yes
69	Facilitate the requirements challenge process	The system must be able to establish linkages with progressively higher requirement sources so that the users can trace the lineage of a requirement.	DOORS provides the ability to create links between requirements.	Link	DOORS-1	Yes
70	Facilitate the requirements challenge process	The system must be able to display copies of entire sections of external documents that are the source of an ORP requirement	DOORS provides the ability to display documents that are input into the database.	Descriptive Module, View	DOORS-1	Yes
71	Facilitate the requirements challenge process	The system must allow very flexible, ad hoc reporting capabilities.	DOORS provides reporting capabilities that allow the user to filter and define the view to be reported on.	Filter, Report	DOORS-2	Yes
72	Facilitate the requirements challenge process	The system must capture challenge requests and handle them in the same way as other requests for changes (see section on change control).	Challenge requests can be entered as change proposals and handled the same as other proposed changes.	Change Proposal System	DOORS-3	Yes
73	Assist with impact analysis assessment	Impact analysis assessment requires the judgment and technical analysis of experts. It generally entails determining the cost and schedule	Impact analysis is performed through human interface.	No Test	NA	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
		impacts of changes to work scope. The PIO will be dependent on the contractors to perform much of the impact analysis.				
74	Assist with impact analysis assessment	The PIO will identify new requirements or requirements that are candidates for challenge. Impact analysis assessment will be done as part of the change control process. The PIO requirements management system will assist as follows: Capture relationships between requirements	DOORS provides the ability to create links that demonstrate a relationship between requirements.	Link	DOORS-1	Yes
75	Assist with impact analysis assessment	The system must capture and report on all the links between requirements. This includes incoming and outgoing links.	DOORS Extension Language (DXL) can be used to generate the needed link reports.	Link	DOORS-1	Yes
76	Assist with impact analysis assessment	The system must allow the user to navigate through the linked requirements.	DOORS provides the ability to navigate through linked requirements.	Link	DOORS-1	Yes
77	Assist with impact analysis assessment	The system must allow for the creation of new links.	Read/Write access can be granted allowing the user to create links.	Link	DOORS-1	Yes
78	Assist with impact analysis assessment	The system must allow links to be deleted.	Read/Write access can be granted allowing the user to delete links.	Link	DOORS-1	Yes
79	Query for a set of requirements	Users must be able to query based on requirement attributes (See section on flexible reporting).	DOORS provides reporting capabilities that allow the user to filter and define the view to be reported on.	Filter, Report	DOORS-2	Yes
80	Manage interfaces	The system must capture all ORP-PIO level requirements related to	Human interface is required to define all requirements related to interfaces. This	Attribute	DOORS-1	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	with AMPD, AMSR, CHG, BNFL, and RL	interfaces.	information can be stored in DOORS user defined attributes.			
81	Manage interfaces with AMPD, AMSR, CHG, BNFL, and RL	The requirements management system must be able to report on which organizations will be affected by a change to a requirement.	DOORS provides reporting capabilities that allow the user to filter and define the view to be reported on. (An attribute indicating the affected organization must exist.)	Filter, Sort	DOORS-2	Yes
82	Manage interfaces with AMPD, AMSR, CHG, BNFL, and RL	The requirements management system must be able to report on which organization is responsible for executing a requirement.	DOORS provides reporting capabilities that allow the user to filter and define the view to be reported on. (An attribute indicating the responsible organization must exist.)	Filter, Sort	DOORS-2	Yes
83	Facilitate Initial Data Load	Any new system must facilitate the transition from the old system to the new one. The requirements currently exist in a variety of documents. The new system must have tools to assist with loading documents that are in a variety of formats such as Word, text, Excel and HTML.	DOORS provides the ability to import from a wide variety of tools including Word, text, Excel, Rich Text Format, etc.	Import	DOORS-1	Yes
84	Facilitate Initial Data Load	The software must provide a global update capability including the global update user defined attributes.	Attributes can be given default values at creations. DXL can be used to global update attributes, also.	Attributes	DOORS-1	Yes
85	Usability Requirements	The electronic system must have the look and feel of a Windows application.	DOORS has the look and feel of a Windows application.	Window comparison	DOORS-6	Yes
86	Usability Requirements	The software must provide standard Windows editing features, such as highlight, cut, copy, paste, change,	DOORS provides the standard Windows editing features.	Windows Comparison	DOORS-6	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
		delete, and insert				
87	Usability Requirements	Ad-hoc reporting functionality must be available.	DOORS provides reporting capabilities that allow the user to filter and define the view to be reported on.	Filter, Report	DOORS-2	Yes
88	Usability Requirements	Ad hoc reporting must not require the services of a computer programmer.	DOORS provides reporting capabilities that allow the user to filter and define the view to be reported on.	No Test	NA	Yes
89	Usability Requirements	The occasional user who wants to be able to view subsets of requirements must not require any training.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.	No Test	NA	Yes
90	Usability Requirements	Training for data editing shall take less than 3 days.	"Applying DOORS" training is requires two days to complete.	No Test	NA	Yes
91	Performance Requirements	The software shall provide a maximum screen refresh time of 1/2 second for a standard Hanford workstation.	General screen refreshing is within the Hanford standards. Initial opening of modules, importing of data, and other capabilities are more time consuming due to complexity of the operation.	System Performance	DOORS-6	Yes
92	Reliability Requirements	The system must provide data backup and restore capabilities.	DOORS provides the ability to archive and restore modules and projects which can be used for backup purposes. Backup of DOORS data will be performed through network server back ups.	No Test	NA	Yes
93	Reliability Requirements	The system must provide archive capabilities.	DOORS provides the ability to archive and restore modules and projects.	User Access	DOORS-5	Yes
94	Security Requirements -- Control access to the requirements -- Levels of Access	The system shall provide several levels of access, from read to update, to the requirements.	DOORS provides Read Only, Read/Write, and Read/Write/Change levels of access.	User Access	DOORS-5	Yes
95	Security Requirements	Access to the system shall be based on network credentials or system	A user assigned to the role of system administrator has the ability to define	User Access	DOORS-5	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	-- Control access to the requirements -- Levels of Access	specific credentials. The system administrator will have full control over which to use.	the type of user log-in that will be used with the projects.			
96	Security Requirements -- Control access to the requirements -- Levels of Access	The assignment of access level will not require the services of a professional computer scientist.	A user assigned to the role of system administrator has the ability to define the type of user log-in that will be used with the projects.	User Access	DOORS-5	Yes
97	Security Requirements -- Control access to the requirements -- Levels of Access	The system shall be capable of limiting access to subsets of the requirements (rows).	DOORS provides the capability to limit access at the object (row) or attribute (column) levels.	User Access	DOORS-5	Yes
98	Security Requirements -- Control access to the requirements -- Levels of Access	The system shall be capable of limiting access to subsets of the attributes (columns).	DOORS provides the capability to limit access at the object (row) or attribute (column) levels.	User Access	DOORS-5	Yes
99	Security Requirements -- Control access to the requirements -- Levels of Access	Since there is a hierarchical relationship between requirements or categories of requirements, viewing, creation, modification, deletion of requirement elements can be controlled based on the hierarchical levels.	DOORS provides the capability to limit access at the object (row) or attribute (column) levels.	User Access	DOORS-5	Yes
100	Security	View only access to the	General use of DOORS will be via	No Test	NA	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	Requirements -- Control access to the requirements -- Levels of Access -- View Only	requirements database will be available to all those involved in requirements management.	DOORSNet, which requires minimal introduction for use.			
101	Security Requirements -- Control access to the requirements -- Levels of Access -- View Only	This view only access must be provided at no cost to the viewer from their workstation.	General use of DOORS will be via DOORSNet, which is accessed through the user's internet browser.	No Test	NA	Yes
102	Security Requirements -- Control access to the requirements -- Levels of Access -- View Only	No more than 1 hour of training will be required.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.	No Test	NA	Yes
103	Security Requirements -- Control access to the requirements -- Levels of Access -- View Only	Access must not require the installation of any additional software on the user's workstation other than the normal network software and/or Web browser.	General use of DOORS will be via DOORSNet, which is accessed through the user's internet browser.	DOORSNet Connection	DOORS-4	Yes
104	Security Requirements -- Control	Anybody must be able to propose a change.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.	DOORSNet	DOORS-4	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	access to the requirements -- Levels of Access – Propose Change					
105	Security Requirements -- Control access to the requirements -- Levels of Access – Propose Change	No training must be necessary.	General use of DOORS will be via DOORSNet, which requires minimal introduction for use.	No Test	NA	Yes
106	Security Requirements -- Control access to the requirements -- Levels of Access – Approve Change	A small number of people must have the capability to approve changes to the text of the requirements and apply these changes to the database.	Read/Write access can be granted allowing users to approve changes and modify requirements as needed.	User Access	DOORS-5	Yes
107	Security Requirements -- Control access to the requirements -- Levels of Access – Approve Change	A small number of people must be able to change the values of attributes associated with requirements. These people may be prevented from changing the requirement text.	Read/Write access can be granted allowing users to approve changes and modify requirements as needed. DOORS provides the capability to limit access at the object (row) or attribute (column) levels.	User Access	DOORS-5	Yes
108	Security	A small number of people must be	Read/Write access can be granted	Links	DOORS-1	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	Requirements -- Control access to the requirements -- Levels of Access – Approve Change	able to add and delete linkages between requirements.	allowing users to add and delete links between requirements.			
109	Security Requirements -- Control access to the requirements -- Levels of Access – Approve Change	No more than 2 days of training will be necessary	"Applying DOORS" training is requires two days to complete.	No Test	NA	Yes
110	Security Requirements -- Control access to the requirements -- Levels of Access – Create new versions	The creation of a baseline and new versions will be limited to one or two people.	Read/Write/Change access can be granted to allow administrators to create baseline and new versions.	User Access	DOORS-5	Yes
111	Security Requirements -- Control access to the requirements -- Levels of Access – Create new	No more than 2 days of training will be necessary.	"Applying DOORS" training is requires two days to complete. Two hour overview sessions will be provided for the DOORSNet users.	No Test	NA	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
	versions					
112	Availability Requirements	The system must be available 10 hours per day, 7 days a week from 7 a.m. - 5 p.m.	DOORS servers are available during core business hours 7a.m. – 5 p.m. standard work days.	No Test	NA	Yes
113	Portability Requirement	The software must execute in a client server or web environment.	DOORS executes in a client server environment. DOORSNet executes in a web environment.	No Test	NA	Yes
114	Portability Requirement	The client portion of the tool must be compatible with Windows 95/98/NT.	DOORS client is compatible with Windows 95/98/NT.	No Test	NA	Yes
115	Portability Requirement	The server portion of the tool must run in an NT environment	DOORS server portion runs in an NT environment.	No Test	NA	Yes
116	Portability Requirement	Any web screens must be compatible with Internet Explorer 4.0 or above.	DOORSNet is compatible with Internet Explorer 4.0 or above.	DOORSNet	DOORS-4	Yes
117	Portability Requirement	All data must be portable to the following relational databases: Access, SQL Server, and Oracle.	DOORS provides Export to SQL functionality. This functionality will not be exercised unless specifically requested.	No Test	NA	Yes
118	Supportability Requirements	The Network license policy must be acceptable to the Chief Information Officer.	RPP CIO approves the Network licensing policy for DOORS.	No Test	NA	Yes
119	Supportability Requirements	Software updates must be released and implemented with less than 4 hours of user downtime.	Software updates will be implemented in less than 4 hours of user downtime.	No Test	NA	Yes
120	Supportability Requirements	Vendor must allow reproduction of training materials for general user training.	If needed, an arrangement will be made with the vendor, QSS.	No Test	NA	Yes
121	Supportability Requirements	On-line help must be available.	DOORS and DOORSNet provide on-line help.	On-line Help	DOORS-6	Yes
122	Supportability Requirements	Client software must be capable of operating on a minimum workstation of Pentium 300 MHz, 64 MB RAM and 6 GB hard disk for editing and a	The requirement for editing exceeds DOORS recommended workstation requirements. The requirement for read-only exceeds DOORS minimum	Workstation	DOORS-6	Yes

No	User/Area	Requirement	Resolution	Test Category	Test Case	Met?
		minimum Pentium 100 MHz for read-only.	workstation requirements.			
123	Supportability Requirements	The tool must support up to 20 concurrent users.	DOORS supports 20 concurrent users, and additional users as needed.	Licensing	DOORS-6	Yes
124	Supportability Requirements	The software must be Y2K Compliant.	DOORS & DOORSNet are Y2K compliant	No Test	NA	Yes
125	Supportability Requirements	The software must be customizable.	DOORS is customizable with the DOORS Extension Language (DXL).	No Test	NA	Yes
126	Interface Requirements	The contractors must be able to link their requirements to the PIO requirements. This can be done via a common data model.	Cross-project linking is not supported by DOORS at this time. Contractors can link their requirements to PIO requirements if their modules are located within the ORP Requirements project.	Link	DOORS-1	Yes

8 APPENDIX B - TEST CASES AND RESULTS

Completed test cases with results will be inserted into the test plan, at this point, after all tests have been performed. The following test cases will be performed.

Test Case Number	Test Case Subject Area
DOORS-1	DOORS General Use (Create Project, Module, Attribute, Link, Import)
DOORS-2	DOORS General Use (Views, Filters, Sort, Reporting, Export, Baseline, History)
DOORS-3	DOORS Change Proposal System
DOORS-4	DOORSNet General Use
DOORS-5	DOORS User Access
DOORS-6	DOORS and DOORSNet System Testing (Broken down into sub-tests) 6.01 – DOORS PC Client General System Test 6.02 – DOORSNet Client General System Test 6.03 – DOORS PC Manual Single User Performance Test 6.04 – DOORSNet Manual Single User Performance Test 6.05 – DOORS PC Manual Multiple Users Performance Test 6.06 – DOORSNet Manual Multiple Users Performance Test

8.1 Test Case Number: DOORS-1

Test Case Title: DOORS General Use (Create Project, Module, Attribute, Link, Import)

Requirements to be verified

No.	Requirement Description
7	Will need to be able to input, edit, and delete requirements; split compound requirements; input attribute values for requirements; view subsets of the requirements; and flag candidates for challenge.
12	Will change the values of requirement attributes and add new links between requirements without going through the requirements change board.
38	Most of the requirements will be extracted from existing documents. These source documents must be available for reference, linked to the associated requirements in the requirements database, and under configuration control. These documents may or may not be stored in the database.
46	While only people can clarify requirements, the system must assist in the identification of ambiguous requirements. An example of this assistance is the tagging of requirements based on the inclusion or exclusion of keywords such as 'must', 'shall', and 'will'. This list of keywords must be customizable.
47	The system must assist in the splitting of compound requirements into single, unambiguous requirements. The user must be able to indicate where the requirement is to be split and the system must then create the new requirements.
48	The system must be able to tag a requirement with multiple, user-defined attributes and capture values for these attributes. Examples of attributes are responsible organization, ORP function, life-cycle phase.
51	The system must allow the use of color to identify related requirements.
61	Ideally, a link to the Human Resource or Payroll system would capture who is at a certain authorization level. This link would also capture delegations of authority. If such a link cannot be made available, then this system will have to have a mechanism to link individuals to authorization levels.
68	The system must allow requirements to be tagged with various attributes, which will make it easy to query on candidates for challenges (See section on flexible reporting).
69	The system must be able to establish linkages with progressively higher requirement sources so that the users can trace the lineage of a requirement.
70	The system must be able to display copies of entire sections of external documents that are the source of an ORP requirement
74	The PIO will identify new requirements or requirements that are candidates for challenge. Impact analysis assessment will be done as part of the change control process. The PIO requirements management system will assist as follows: Capture relationships between requirements

75	The system must capture and report on all the links between requirements. This includes incoming and outgoing links.
76	The system must allow the user to navigate through the linked requirements.
77	The system must allow for the creation of new links.
78	The system must allow links to be deleted.
80	The system must capture all ORP-PIO level requirements related to interfaces.
83	Any new system must facilitate the transition from the old system to the new one. The requirements currently exist in a variety of documents. The new system must have tools to assist with loading documents that are in a variety of formats such as Word, text, Excel and HTML.
84	The software must provide a global update capability including the global update user defined attributes.
108	A small number of people must be able to add and delete linkages between requirements.
126	The contractors must be able to link their requirements to the PIO requirements. This can be done via a common data model.

Testing Set-up

- User is required to be logged on to the Hanford Local Area Network (HLAN)
- DOORS 4.1.4 SR2 (production) must be installed on testing workstation
- Microsoft Word 97 must be installed on testing workstation
- Internet Explorer 4.0 or higher must be installed on workstation.

Constraints

The constraints listed below were taken into account during the preparation of testing materials. The user will be provided import files that have been converted to the noted format.

- Importing of HTML files require the user to save the HTML file as a ".rtf" file prior to import.
- Importing of Excel files require the user to save the Excel file as a ".cmf" file prior to import.

Test Case

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
2	Create a new project using the project wizard. Use of the wizard will also create an initial module definition. • Select Project -> Project Wizard • Accept default Project Definition "New" • Enter Name: "Test Project -" followed by your name (e.g. Test Project - Adria) • Enter Description: "Test project created by " followed by your name (e.g. Test project created by Adria) • Select Next • Enter "Test Excel" in Module Name Field • Select Insert custom module • Accept other default entries on Project Wizard Step 2 screen, Select Next • Accept default entries on Project Wizard Step 3 screen, Select Next • Accept default entries on Project Wizard Step 4 screen, Select Next • Enter Project Definition: "Test Project Wizard" followed by your initials (e.g. Test Project Wizard ALJ), Select Next • In the User list, you should see your HID followed "(Administrator)", Select Next • Select Finish on the Project Wizard Step 7 screen	The DOORS Project Manager window will be displayed with the Test Project title displayed in the title bar. One module will be listed with the name displayed "Test Excel" in the module column.	✓		
3	Open the Test Excel Module by double-clicking on it	The DOORS Formal Module: 'Test Excel' current 0.0 window will open.	✓		
4	Import a test Excel file Select Tools -> Import -> Spreadsheet	The DOORS Import Spreadsheet window will be displayed.	✓		
5	• Accept default entry for Import to	• DOORS Formal Module 'Test Excel'	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	Attributes • Select "Create new objects" on Import Options • Enter Input file: C:\ProgramFiles\DOORS\Testing\Test-Excel.csv • Select Import • When prompted to confirm attribute types, ensure that all types are "text", (if not select Change Attribute Type, select text) select Confirm • When prompted with number of objects updated and number of objects created, select OK • Select Close	current 0.0 window will be displayed • Object Identifier and Test Excel Columns will be displayed			
6	Insert a New Column for each of the following attributes (Select Column -> New -> On the Attribute pull down menu select the attribute name -> Select Insert) • Application Acronym • Application Full Name • Data Description • Owner Company	DOORS Formal Module 'Test Excel' current 0.0 window will be displayed with the following columns displayed: • Object Identifier • Test Excel • Application Acronym • Application Full Name • Data Description • Owner Company	✓		
7	Save the view created • Select View • Select Manage Views • In View Name Field type "Test Excel View" • Select Save ("Test Excel View" will appear in the Views field of the Manage Views window.)	Test Excel View will appear in the Views pull down menu in the toolbar near the top left of the DOORS window.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	• Select Close				
8	Create a New Attribute Type • Select Attribute • Select Edit Type • Enter Name of Type: Interfaces • Select Base Type: Enumeration • Select Edit Enumerations • Enter Name CHG, Enter Value 1, Select Use Color Specified, Select Color "High Indicator" (RED), Select Insert • Enter Name ORP, Enter Value 2, Select Use Color Specified, Select Color "Medium Indicator" (YELLOW), Select Insert • Enter Name BNFL, Enter Value 3, Select Use Color Specified, Select Color "Low Indicator" (GREEN), Select Insert • Select Close • On the Edit Attribute Types window, select Create	• Before Selecting Close on the Edit Enumerations window, the new enumerations created will be displayed in the right side of the window. • Before Selecting Close on the Edit Attribute Types window, the newly created attribute type "Interfaces" will appear in the Defined Types list.	✓		Add instruction last step "Select Close".
9	Create a new attribute • Select Attribute • Select Define • Accept Default Applies to Objects • Enter Name: Interface Company • Select Type: Interfaces • Select Multivalued • Accept Default of Value: No Default • Select all options on Attribute should (Generate History, Affect Change Dates, Affect Change Bars) • Select Create	Before Selecting Close on the Define Attribute window, the newly created attribute "Interface Company" will appear in the Attributes list	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	• Select Close				
10	Insert the Interface Company attribute column (Select Column -> New -> On the Attribute pull down menu, select the attribute name -> Select Insert)	A new blank column will be created with the title of Interface Company.	✓		
11	Globally insert a value for the Interface Company attribute • Hold down the shift key and click on the first object to select it (text will turn red) and continue to hold down the shift key and click on the last object in the module to select all in between (all objects will now have red text), release the shift key • Right Click on any object • Select Edit • On the Edit Formal Object window, Select Interface Company from the Attribute List • On the Edit Attribute Value Window, Select Value: Specific • Select Specific Value: BNFL • Select Apply to current: Display Set • Select Apply • Select Confirm, to "Apply to all displayed objects?" • Select Close on the Edit Formal Object Window	Every object in the Interface Company column will contain BNFL	✓		
12	Change the color of the Company Interface attribute • Double-click on the Interface Company column title • On the Edit Column window, Select Use Color: By Attribute	Every object in the Interface Company column will contain BNFL. The BNFL entry text will now be displayed in Green.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	• Select Interface Company • Select Apply				
13	Split the second object in the module • Double-click in the Data Description column of the 2nd row • Highlight text in the Data Description column as follows: Has several functions: acquiring C852 temp, alarm operators when out of tolerance, edit limit file, auto limit file selection. • Press Ctrl-X to cut the selection • Select Object -> New one level down (a blank object will be created directly below) • Double-click in the new object's Data Description column • Press Ctrl-V to paste the selection	A new object will be created with "edit limit file, auto limit file selection" in the Data Description column (Note: If the Data Description column was the "Object Text" the user could also use tools->Functions->Split Object to split the object.)	✓		
14	• Close the Test-Excel Module • If prompted to save, select yes	DOORS: Project Manager window will be displayed	✓		
15	Create a new formal module • Select Module -> New Formal Module On the New Formal Module window • Enter Formal Module Name: Test-TXT • Enter Description: Test Text • Enter Absolute Numbers Start At: 1 • Enter Absolute Numbers Prefix: txt • Select Create	The DOORS Formal Module: 'Test-TXT' current 0.0 window will open and will be blank.	✓		
16	Import a text file • Select Tools -> Import -> Plain Text • Enter File to be Imported: C:\ProgramFiles\DOORS\Testing \Test-	DOORS: Configure Import window will open	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	TXT.txt • Select Import				
17	• Select Decomposition level: Sentence w/ keywords • Highlight keywords "must", "shall", and "will" • Select Import	The Test-TXT module will display two columns (Object Identifier and Test Text) and contain 20 objects (txt1-txt20)	✓		
18	• Close the Test-Text Module • If prompted to save, select yes	DOORS: Project Manager window will be displayed	✓		
19	• Open Microsoft Word (Start -> Program Files -> Microsoft Word) • Open file: C:\ProgramFiles\DOORS\Testing \Test-Word.doc (File -> Open…)	Microsoft Word will open and display the Test-Word.doc file.	✓		
20	Export the file to DOORS • Select Tools -> Export to Word • Enter Formal Module Name: Test-Word • Enter Description: Test Word • Enter Absolute Numbers Start At: 1 • Enter Absolute Numbers Prefix: word • Accept the default checkmarks on Remove Heading Numbers and Capture Paragraph Styles • Select Export • Navigate to DOORS	The DOORS Formal Module: 'Test-Word' current 0.0 window will open and will contain the object identifier and Test Word columns.	✓		• "Select Tools -> Export to Word" should read "Select Tools -> Export to DOORS" • "Enter Absolute Numbers Prefix:" should read "Enter Module Prefix" • Bullets 4 and 5 should be switched in order
21	• Navigate to Microsoft Word • Close Microsoft Word • Navigate to DOORS • Close the Test-Word module	DOORS: Project Manager window will be displayed	✓		Add instruction after bullet 2 "If prompted to save, select yes"

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	• If prompted to save, select yes				
22	Create a new descriptive module • Select Module -> New Descriptive Module On the New Descriptive Module window • Enter Descriptive Module Name: Test-Desc • Enter Description: Test Descriptive • Enter Absolute Numbers Start At: 1 • Enter Absolute Numbers Prefix: DSC • Enter File: C:\ProgramFiles\DOORS\Testing \ Test-TXT.txt • Select Create	The DOORS Descriptive Module: 'Test-Desc' current 0.0 window will open and will contain one object.	✓		
23	• Close the Test-TXT module • If prompted to save, select yes	DOORS: Project Manager window will be displayed. The Project Manager will now display three module choices.	✓		Result should read "DOORS: Project Manager window will be displayed. The Project Manager will now display four module choices."
24	Create a new formal module • Select Module -> New Formal Module On the New Formal Module window • Enter Formal Module Name: Test-rtf • Enter Description: Test RTF (HTML) • Enter Absolute Numbers Start At: 1 • Enter Absolute Numbers Prefix: htm • Select Create	The DOORS Formal Module: 'Test-RTF' current 0.0 window will open and will be blank.	✓		
25	Import a test RTF file • Select Tools -> Import -> RTF	The DOORS Import RTF window will be displayed.	✓		
26	• Enter	DOORS Map RTF Files window will	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	C:\ProgramFiles\DOORS\Testing\Test-HTML.rtf in the file to be imported field • Select Import	open.			
27	• Select the Select All button • Enter Settings file C:\ProgramFiles\DOORS\Testing\Test-HTML.rtf • Select Import	The DOORS Formal Module: 'Test-RTF' current 0.0 window will open and will contain 45 objects.	✓		
28	• Close the Test-rtf module • If prompted to save, select yes	DOORS: Project Manager window will be displayed.	✓		
29	Create a link module • Select Module -> New Link Module On the New Link Module window • Enter Link Module Name: Test-Link • Enter Description: Test Link • Enter Mapping: Many-to-Many • Select Create	The DOORS Link Module: 'Test-Link' current 0.0 window will open and will be empty.	✓		
30	Create a new linkset • Select Linkset -> New On the DOORS: New Linkset window • Select Source: Test-TXT • Select Target: Test-Excel • Select Create	The DOORS Link Module: 'Test-Link' current 0.0 window will open and will display a graphical view of the intersection points between the Test-Txt and Test-Excel modules.	✓		
31	• Highlight the bottom, right-hand square of the graphical matrix	A blue highlight will fill all squares on the bottom row and right-most column.	✓		
32	• Right-click on the bottom, right-hand square of the graphical matrix • Select New Link	DOORS: Edit Link Object window will open displaying the source, target, and attribute information.	✓		
33	• Select Close	The bottom, right-hand square of the matrix will be displayed in dark blue, indicating a link has been created.	✓		
34	Create another new linkset	The DOORS Link Module: 'Test-Link'	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	• Select Linkset -> New On the DOORS: New Linkset window • Select Source: Test-Excel • Select Target: Test-Txt • Select Create • If asked to save the Test-Txt module, select Yes.	current 0.0 window will open and will display a graphical view of the intersection points between the Test-Excel and Test-Txt modules.			
35	• Highlight the bottom, right-hand square of the graphical matrix	A blue highlight will fill all squares on the bottom row and right-most column.	✓		
36	• Right-click on the bottom, right-hand square of the graphical matrix • Select New Link	DOORS: Edit Link Object window will open displaying the source, target, and attribute information.	✓		
37	• Select Close	The bottom, right-hand square of the matrix will be displayed in dark blue, indicating a link has been created.	✓		
38	• Close the Test-Link module • If prompted to save on any modules, select yes	DOORS: Project Manager window will be displayed. The Project Manager will now display four module choices.	✓		
39	• Open the Test-TXT module • Scroll down and locate the incoming and outgoing links just created.	The Test Text column in txt8 will have an orange "◄" symbol, indicating an incoming link. The Test Text column in txt10 will have a red "►" symbol, indicating an outgoing link.	✓		Remove references to object numbers in results. Object numbers different for each tester.
40	Navigate between modules using a link • Right-click on the red outgoing link "►" symbol • Highlight "Test Excel" • Click on "Unloaded Object…"	• DOORS Formal Module 'Test Excel' current 0.0 window will be displayed • Object Identifier and Test Excel Columns will be displayed • An object will be highlighted and the Test Excel column will have an orange "◄" symbol, indicating an incoming link.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
41	Navigate back to the Test-TXT module using a link • Right-click on the orange incoming link "◄" symbol • Highlight "Test Text" • Click on the object text that is displayed	• DOORS Formal Module 'Test Text' current 0.0 window will be displayed • Object Identifier and Test Text Columns will be displayed • Object txt10 will be highlighted and the Test Text column will have a red "►" symbol indicating an outgoing link.	✓		Remove references to object numbers in results. Object numbers different for each tester.
42	• Close all open modules • If prompted to save, select Yes.	• DOORS: Project Manager window will be displayed.	✓		
43	Delete a link • Open the Test-Link Module • Select the "Test-Excel -> Test-TXT" linkset from the pull-down menu in the toolbar • Click on the bottom, right-hand, dark blue square of the graphical matrix to select the link • Right-click on the bottom, right-hand square of the graphical matrix • Select Delete Link • Select Confirm on the Confirm deletion window	• The DOORS Link Module: 'Test-Link' current 0.0 window will open and will display a graphical view of the intersection points between the Test-Excel and Test-Txt modules. • A blue highlight will fill all squares on the bottom row and right-most column. This highlight will show a connection between "9 Exc 50" and "2.0-1 Presently, the requirements ar". • The bottom, right-hand square of the graphical matrix will no longer be dark blue.	✓		Edit second bullet in results as follows: • A blue highlight will fill all squares on the bottom row and right-most column. ~~This highlight will show a connection between "9 Exc 50" and "2.0-1 Presently, the requirements ar".~~
44	• Close the Test-Link module • If prompted to save, select yes	DOORS: Project Manager window will be displayed. The Project Manager will now display five module choices. Note: Link modules can be used to view all links between modules within a	✓		Results should read "DOORS: Project Manager window will be displayed. The Project Manager will now display six

Step Num	Instruction	Expected Result	Pass	Fail	Comments
		project.			module choices."
45	• Close DOORS	DOORS will close without incident.	✓		

Tested by: < Original working copy test cases signed by testers. > <April 11, 2000>

Print and Sign Name

Date

8.2 Test Case Number: DOORS-2

Test Case Title: DOORS General Use (Views, Filters, Sort, Reporting, Export, Baseline, History)

Requirements to be verified

No.	Requirement Description
1	Will query on subsets of requirements and look at relationships between requirements.
2	Will generate the requirement's section of new contracts from the requirements database.
3	Will extract the requirements set associated with a life cycle phase and use it as a checklist to see if all the requirements for that phase have been met.
9	Will periodically examine the requirements to determine their continued applicability
13	Will provide information about requirements to contractors and ORP management.
15	Will periodically examine the requirements in the system for interfaces to determine their continued applicability
18	Will query the database to determine what entities are affected by a change in a requirement.
19	Will query the database to determine which entities are responsible for the execution of a requirement.
22	Wants to be able to generate the requirements' section of the Mission Analysis Report from the Requirements database.
34	The requirements will be baselined and an electronic change control mechanism must be provided.
35	Previous versions of the requirements will be available.
36	The system will be able to report on the differences between versions
39	Reports shall include an arbitrary number of requirements attributes that can be specified by the user. (Attribute examples: Responsible Organization, Major Facility)
40	Reporting may include the entire requirements' matrix or a selected subset of the matrix.
41	Requirements matrix shall be capable of reporting in textual or graphical format.
42	Requirements may be grouped hierarchically, if so drill-down capabilities shall be provided so that users can get an overview of the requirement categories followed by increasing levels of detail in the category of interest.
43	The system shall report requirements in such a manner that the output may be used as a legal document following a user described format. For example, the PIO Requirements Management system will be able to generate the requirement's section for the contracts.
44	The system shall be able to generate reports to the screen, paper, and the web (HTML).
49	The system must provide the capability to export a requirements subset for further analysis (e.g., into Excel).
63	While much of the impact analysis work will be manual, the system must be capable of showing related requirements and any selected attributes of the requirements (see sections on flexible reporting and impact analysis)

71	The system must allow very flexible, ad hoc reporting capabilities.
79	Users must be able to query based on requirement attributes (See section on flexible reporting).
81	The requirements management system must be able to report on which organizations will be affected by a change to a requirement.
82	The requirements management system must be able to report on which organization is responsible for executing a requirement.
87	Ad-hoc reporting functionality must be available.

Testing Set-up

- User is required to be logged on to the Hanford Local Area Network (HLAN)
- DOORS 4.1.4 SR2 (production) must be installed on testing workstation
- Microsoft Word 97 must be installed on testing workstation
- Internet Explorer 4.0 or higher must be installed on workstation.

Test Case

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.	✓		
2	• Open Test Project <your name> (created in DOORS-1) • Open the Test-Excel Module • Select the Test Excel View from the View Pull Down Menu	• DOORS: Project Manager - Test Project <your name> will open • DOORS: Formal Module 'Test Excel' current 0.0 will display the Text Excel View and will contain six columns.	✓		
3	Export the module to Microsoft Word • Select Tools -> Export -> Microsoft Office -> Word 95/97 On the DOORS: Export to Word window • Select Layout: Table • Accept default checkmark next to Include DOORS Heading Numbers	• A DOORS Export progress window will display during the process which may take several minutes. • Microsoft Word will display a table. The first column will contain the DOORS Object Identifiers from the Test-Excel module.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	• Select Export • Navigate to Microsoft Word				
4	• Close Microsoft Word • If prompted to save, save as TestExport.doc	Microsoft Word will close without incident.	✓		
5	Navigate to DOORS: Formal Module 'Test-Excel' current 0.0	DOORS: Formal Module 'Test Excel' current 0.0 will display the Text Excel View and will contain six columns.	✓		
6	Export the module to Microsoft Excel • Select Tools -> Export -> Microsoft Office -> Excel 97 On the DOORS: Export Excel window • Accept default selection of 'Main' column: Ignore • Accept default checkmark next to Include column titles • Select Export Navigate to Microsoft Excel	Microsoft Excel will display a spreadsheet. The first column will contain the DOORS Object Identifiers from the Test-Excel module.	✓		
7	• Close Microsoft Excel • If prompted to save, save as TestExport.xls	Microsoft Excel will close without incident.		✓	• DOORS displayed error "OLE Method Failed. Problem with OLE Argument names." • Excel did not close and only displayed 159 of 255 records (objects). • DOORS was "frozen" and required Windows Close Program/End Task to close window.

Step Num	Instruction	Expected Result	Pass	Fail	Comments
8	Apply a Filter to locate information within the Test-Excel module • Select Tools -> Filter On the DOORS: Filter window • Select Attribute • Select Owner Company from the pull down list • Accept Default of "=" • Enter "WMH" in the blank field next to the "=" • Select Define Simple • Select Apply Simple	The DOORS Filter window will display Accepted: 71(28%) and Rejected: 184 near the bottom of the window.	✓		
9	• Select Close • Inspect the results of the filter in the Test-Excel module	• DOORS: Formal Module 'Test Excel' current 0.0 will display the Text Excel View and will contain six columns. • Only objects with Owner Company of WMH will be displayed.	✓		

10	Run a report within the Test-Excel module
	• Select Tools -> Report Wizard
	• Report Wizard -1. Welcome to the Report Wizard
	  • Select Create a New Report
	  • Select Next
	• Report Wizard - 2. Select a View of the Module
	  • Accept default of Use the current presentation
	  • Select Next
	• Report Wizard - 3. Select a Page Layout for the Module
	  • Accept default of Create a new Page
		• DOORS: Formal Module 'Test Excel' current 0.0 will display the Text Excel View and will contain six columns.
		• Only objects with Owner Company of WMH will be displayed.
			✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	Layout • Select Next • Report Wizard - 4. Welcome to the Page Layout Wizard • Select Next • Layout Wizard - 5. Page Setup • Accept all defaults • Select Next • Layout Wizard - 6. The Title Page • Accept default of Include Title Page • Enter Header: "Test Report - " followed by your name (e.g. Test Report - Adria) • Accept default footer information • Select Next • Layout Wizard - 7. The contents Page • Accept all defaults • Select Next • Layout Wizard - 8. Module Format • Accept all defaults • Select Next • Layout Wizard - 9. Headers and Footers • Accept all defaults • Select Next • Layout Wizard - 10. Name your Page Layout • Enter your name in the Name field (e. g. Adria) • Select Next • Report Wizard - 11. Test your report • Select View Continue with Wizard				

Step Num	Instruction	Expected Result	Pass	Fail	Comments

	• Report Wizard - 11. Test your report (cont.)
	  • Select Next
	• Report Wizard - 12. Name your report
	  • Enter Name: "Test " followed by your name (e.g. Test Adria)
	  • Enter Description: Test Report
	  • Select Next
	• Report Wizard - 13. Finish
	  • Select Finish				

11	Preview the report • Navigate to the DOORS Project Manager window. • Select Tools -> Report Manager On the DOORS: Report Manager window • Highlight Modules: Test-Excel and Reports: Test_<your name> • Select View	• DOORS: Formal Module 'Test Excel' current 0.0 will display the Text Excel View and will contain six columns. • Only object with Owner Company of WMH will be displayed.	✓		
12	Preview the results of the report in print preview • Select Module -> Print Preview • Accept default printer and pages All • Select Preview	• DOORS: Print Preview 'Test Excel' window will be displayed. • The report displayed will show Test Report <your name> near the top of the page.	✓		
13	• Close the Print Preview window. • Close the Report Manager window • Turn off the filter by selecting the filter icon on the DOORS tool bar. (The filter icon looks like a funnel.)	DOORS: Formal Module 'Test Excel' current 0.0 will display the Text Excel View and will contain six columns in its original format containing all Owner Companies.	✓		
14	Baseline the Test-Excel module • Select Module -> Baseline On the Baseline window • Accept all defaults	• The Test-Excel module will close. • DOORS: Project Manager window will remain open displaying a list of available projects.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	• Select Major version • Select Save				
15	• Open the Test-Excel Module • Select the Test Excel View from the View Pull Down Menu	DOORS: Formal Module 'Test Excel' current 1.0 will display the Text Excel View and will contain six columns.	✓		
16	Make a change to the Test-Excel Module • Double-click on the first object in the Application Acronym column • Change the acronym from BLTC-CONT to CONT-BLTC • Move the cursor out of the cell by clicking somewhere else on the screen.	The change bar between the Object Identifier and Test Excel columns on the row of the changed cell will be red, indicating a change has been made to the object.	✓		
17	Save the changes • Select Module -> Save	The change bar between the Object Identifier and Test Excel columns on the row of the changed cell will be yellow, indicating a change has been made to the baseline.	✓		
18	Double-click on the yellow change bar, to inspect the change	The DOORS: History window will open and will display the changes made to the object. Notice the modification describes the change made above.	✓		
19	Select Close on the History window.	DOORS: Formal Module 'Test Excel' current 1.0 will display the Text Excel View and will contain six columns.	✓		
20	Re-Baseline the Test-Excel module • Select Module -> Baseline On the Baseline window • Select Baselines Available 1.0 • Select Minor version • Select Save	• The Test-Excel module will close. • DOORS: Project Manager window will remain open displaying a list of available projects.	✓		
21	• Open the Test-Excel Module	DOORS: Formal Module 'Test Excel'	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	• Select the Test Excel View from the View Pull Down Menu	current 1.0 will display the Text Excel View and will contain six columns.			
22	View the differences between modules • Select Module -> Baseline On the Baseline window • Select Baselines Available 1.0 • Select Load	DOORS: Formal Module 'Test Excel' baseline 1.0 will display the Standard View.	✓		
23	Select the Test-Excel view from the pull down menu.	DOORS: Formal Module 'Test Excel' baseline 1.0 will display the Test Excel View and will contain six columns.	✓		
24	Open the current Test-Excel module from the Project Manager	DOORS: Formal Module 'Test Excel' current 1.1 will display the Standard View.	✓		
25	Select the Test-Excel view from the pull down menu.	DOORS: Formal Module 'Test Excel' current 1.1 will display the Test Excel View and will contain six columns.	✓		
26	Tile or toggle between the current and baseline Test Excel module windows and examine the first object in both.	The application acronym in the first object of the baseline 1.0 module will be BLTC-CONT. The application acronym in the first object of the current 1.1 module will be CONT-BLTC.	✓		
27	Close all open modules If prompted to save, select yes	DOORS: Project Manager window will open displaying a list of available projects.	✓		
28	Close DOORS	DOORS will close without incident.	✓		

Tested by: < Original working copies of test cases signed by testers > <April 11, 2000>

Print and Sign Name Date

8.3 Test Case Number: DOORS-3

Test Case Title: DOORS Change Proposal System

Requirements to be verified

No.	Requirement Description
52	The drivers for internal change can be bottom up or top down. The change control team will have a process to handle both and the interface team will have processes to manage all interfaces changes. The PIO Requirements Management System must assist both of these teams in managing changes to requirements. Additionally, the system must help track changes to externally generated requirements such as DOE Orders, regulations, etc.
54	The proposed change must be captured.
55	The justification for the proposed change must be captured.
56	The person proposing the change and the date of the proposal will also be captured.
57	The persons responsible for monitoring external changes must be able to capture that a change is likely or that a change has occurred.
58	The responsible persons will analyze the change and its impact. The system must capture a summarization of their analysis and their recommendation as to whether or not this requirement should be challenged.
62	The system must have the capability to notify individuals who are responsible for reviewing proposed changes to the requirements baseline that changes have been requested.
64	The system must be capable of receiving inputs from the reviewers as to their approval or disapproval of a proposed change to the requirements baseline and the reason for their decision.
65	The system must be capable of producing reports of the history of all changes to a requirement and the justification for the changes.
67	The proposer will be able to see the status of a proposed change.
72	The system must capture challenge requests and handle them in the same way as other requests for changes (see section on change control).

Special Instructions

This test case (DOORS-3 Change Proposal System) and DOORS-4 DOORSNet are to be performed concurrently. Test case steps in this script (DOORS-3) should be started first. Test case steps will include instructions for changes in test case use.

Testing Set-up

- User is required to be logged on to the Hanford Local Area Network (HLAN)
- DOORS 4.1.4 SR2 (production) must be installed on testing workstation
- DOORSNet 2 must be installed on the testing workstation
- Microsoft Word 97 must be installed on testing workstation
- Internet Explorer 4.0 or higher must be installed on workstation.

Test Case

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.	✓		
2	Open the Test Project - <Your Name> Project (e.g. Test Project - Adria)	DOORS: Project Manager - Test Project - <your name> window will open displaying a list of available modules.	✓		
3	Setup the Change Proposal System Select Tools -> Change Proposals -> Setup CP System	DOORS: Set up project for review window will open.	✓		
4	• Highlight all modules in the list of available modules (Test-Excel, Test-TXT, and Test-Word) • Select the Right Arrow to move the selected modules to the Modules for review list • Select Apply • Select Close • Select OK (when prompted with explanation of CP modules and default access rights)	The DOORS: Project Manager - Test Project <your name> window will now list all available modules, including seven new modules. The new modules will include: • Change Proposal Links • Change Proposal Staple Links • Change Proposal Users • CP-Test Excel • CP-Test TXT • CP-Test Word • CP_Suggestions	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
5	Publish your project • Select Tools -> DOORSNet -> Publish	DOORS: Publish Project window will open displaying the available modules.	✓		
6	• Highlight Test-Excel, Test-TXT, and Test-Word in the available modules list • Check the Publish Current Project checkbox • Select the Right Arrow to move the selected modules to the Published modules list • Uncheck the Allow anonymous access checkbox • Select OK • When prompted "The user 'guest' does not exist for this project. Would you like to create this user now?", Select Yes • If prompted to remember to change the guest user password, select OK. • When prompted "The user 'external' does not exist for this project. Would you like to create this user now?", Select No	DOORS: Project Manager window will open displaying the available modules. It will appear unchanged.	✓		
7	Setup Email for the Change Proposal system Select Tools -> Change Proposals -> Email Options	DOORS: Change Proposal System Email window will open.	✓		
8	• Select Enable email • Select Send email automatically • Select your name from the choices of Windows Messaging profiles listed. • Select Apply • Select Close	The DOORS: Change Proposal System Email window will close and the Project Manager window will be displayed.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
9	***COMPLETE STEPS 1 THROUGH 10 ON SCRIPT DOORS-4 DOORSNET.***	N/A			
10	Open the CP-Test-Word Module by double-clicking on it	The DOORS Formal Module: 'CP-Test-Word' current 0.0 window will open.	✓		
11	Review change proposals • Select Tools -> Change Proposal System -> Review	DOORS: Review Change Proposals window will open. The change proposal information for the change proposal created on the DOORS-4 test script will be displayed. (Refer to DOORS-4, step 8 for change proposal number.)	✓		
12	• Change Priority to Very High • Change Status to Approved • Enter "Test Comments" in the Review Comments Field • Select Commit Changes • Select Close	DOORS: Review Change Proposals window will open. The DOORS Formal Module: 'CP-Test-Word' current 0.0 window will open. (If the module opens in graphics mode turn it off by selecting View -> Graphics, or selecting the icon that looks like an org chart.) Notice the status column of the subject change proposal will now read "Approved"	✓		
13	Apply the approved change • Select Tools -> Change Proposal System -> Apply	The DOORS: Apply Change Proposals window will open. There will be "1" approved changes in current module.	✓		
14	• Accept default Log file location • Select Apply Current • Select OK on DOORS notification window which reads "Modified Word-3 in Test-Word"	The DOORS Formal Module: 'CP-Test-Word' current 0.0 window will open. Notice the status column of the subject change proposal will now read "Applied"	✓		
15	View the changes made to the object. • Highlight the object (change proposal) • Select Object -> History	DOORS: History window will open displaying all changes made to the subject change propsal.	✓		
16	• Review Changes • Select Close to close the DOORS: History window	The DOORS Formal Module: 'CP-Test-Word' current 0.0 window will open.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
17	Close DOORS • Close the CP-Test-Word module • If prompted to save, select yes. • Close DOORS Project Manager	DOORS will close without incident.	✓		
18	***COMPLETE REMAINDER OF DOORS-4***	NA			

Tested by: < Original working copies of test cases signed by testers > <April 11, 2000>

Print and Sign Name

Date

8.4 Test Case Number: DOORS-4

Test Case Title: DOORSNET General Use

Requirements to be verified

No.	Requirement Description
29	Contractor staff, who are responsible for managing requirements and finding ways to complete the mission more efficiently and effectively, need to be able to view the parent requirements from which contractor requirements may have been derived, trace relationships between requirements, and suggest changes to requirements.
44	The system shall be able to generate reports to the screen, paper, and the web (HTML).
62	The system must have the capability to notify individuals who are responsible for reviewing proposed changes to the requirements baseline that changes have been requested.
66	The system must be capable of producing a summary of all proposed changes and their status.
103	Access must not require the installation of any additional software on the user's workstation other than the normal network software and/or Web browser.
104	Anybody must be able to propose a change.
116	Any web screens must be compatible with Internet Explorer 4.0 or above.

Special Instructions

Test case DOORS-3 Change Proposal System and this test case (DOORS-4 DOORSNet) are to be performed concurrently. Test case steps in script DOORS-3 should be started first. Test case steps will include instructions for changes in test case use.

Testing Set-up

- Ensure Internet Explorer 4.0 or higher is installed on workstation.
- User is required to be logged on to the Hanford Local Area Network (HLAN)
- User is required to have access to their email account

Test Case

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	• Open Internet Explorer (Start ->Programs->Internet Explorer) • **Enter version number in comment field of this test script** (version is shown on title bar of Internet Explorer, e. g. "Hanford Intranet - Microsoft Internet Explorer ***5.01*** Hanford ESDS [990712]")	Internet Explorer should open with the Hanford Intranet home page visible.	✓		All Testers entered Internet Explorer Version 5.01
2	Access the DOORSNet access page by entering the following URL in the Address field: http://apdoorswprd/doorsnet	The DOORSNet access page will open displaying "Welcome to DOORSNet" near the top of the page.	✓		
3	Enter your name and email address in the appropriate fields and select OK. Example: Name: Adria Johnson Email address: adria_l_johnson@rl.gov	DOORSNet Access Page for the user will be displayed. User name will be included in the title near the top of the page. Example: DOORSNet Access Page for Adria Johnson	✓		
4	• Select the Test Project - <your name> project • Enter User Name "Guest" • Do not enter a Password • Select OK	DOORSNet page displaying available modules in the Test Project - <your name> project will be displayed. "Please select a view" will be displayed near the top of the page.	✓		
5	• Select Preferences to move to the Preferences page. • Check the box next to "Notify updates by email". • Enter your email address in the email field.	DOORSNet page displaying available modules in the Test Project - <your name> project will be displayed. "Please select a view" will be displayed near the top of the page.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	• Select OK • When prompted with "User Preferences Saved", select OK				
6	Highlight the Test-Word module, select Table Format, and select OK	DOORSNet page displaying the selected module will be displayed. "Test-Word: Standard View" will be displayed near the top of the page.	✓		
7	Select the "show actions" button (a large blue bullet icon) in the third table row and Test Word column, and select the link "Submit a change proposal".	DOORSNet page for change proposals will be displayed. The top of the page will read "New change proposal for object Word3".	✓		
8	• In the Reason for change field, enter your name followed by the word "test". Example: Adria Johnson test • Leave Change Type and Priority at the default selections • Change object text to start with your initials followed by the word "test" Example: AJ TEST … • Select Submit • **Enter the change proposal number in the comment field of this test script** • Select OK	• Confirmation window will be displayed that reads "Created change proposal 'CP-x-x'". (x's represent numbers that will be unique to each test.) • After selecting OK, DOORSNet page displaying the selected module will be displayed. "Test-Word: Standard View" will be displayed near the top of the page. The show actions button for the selected object will have changed to a button with a comment flag on it.	✓		All Testers entered change proposal number "CP-TI-4"
9	Select the "show actions" button next to the second table entry, and select the link "Show details of change proposal".	DOORSNet page for change proposals will be displayed. The top of the page will read "Change proposal CP-x-x for object xxx". (x's represent numbers that will be unique to each test.)	✓		
10	Review the change proposal information to ensure it is what was submitted, select Back.	DOORSNet page displaying the selected module will be displayed. "Test-Word: Standard View" will be displayed near	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
		the top of the page.			
11	***COMPLETE STEPS 10 THROUGH 17 ON SCRIPT DOORS-3 CHANGE PROPOSAL SYSTEM.***	N/A			
12	• Open Microsoft Outlook and access the inbox.	A new message will be displayed in the inbox, with the subject line "Change Proposal Update".	✓		Comment – Three messages received. One message was sent for each change.
13	• Review then close the new message • Return to DOORSNet	DOORSNet page displaying the selected module will be displayed. "Test-Word: Standard View" will be displayed near the top of the page.	✓		
14	• Select Show Proposals from the DOORSNet menu found at the top of the page. • Select Show All Proposals	DOORSNet page displaying the change proposals for the Test-Word module will be displayed. "All proposals (from the last 30 days)" will be displayed near the top of the page.	✓		
15	• Locate the change proposal number entered during step 8 of this test. • Select the Details Icon located on the same row of the located change proposal number.	DOORSNet page for change proposals will be displayed. The top of the page will read "Change proposal CP-x-xxxx for object xxx". (x's represent numbers that will be unique to each test.)	✓		
16	• Review the change proposal information to ensure updates match the Change Proposal Update email message. • Select Back at bottom of page to return to the "All proposals (from the last 30 days)" page • Select Back at bottom of page again	DOORSNet page displaying the selected module will be displayed. "Test-Word: Standard View" will be displayed near the top of the page.	✓		
17	• Select Close Project	DOORSNet Access Page for the user will be displayed. User name will be included in the title near the top of the page.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
18	• Close Internet Explorer	Internet Explorer will close without incident.	✓		

Tested by: < Original working copies of test cases signed by testers > <April 11, 2000>

Print and Sign Name Date

8.5 Test Case Number: DOORS-5

Test Case Title: DOORS User Access

Requirements to be verified

	User/Area	Requirement	Resolution
4	DOE ORP Staff	Will not update requirements.	Read only access will be granted to limit the user from updating requirements.
6	Initial Load Reviewers	Will load requirements into the PIO Requirements database.	Read/Write access will be granted allowing the users to load requirements into the PIO Requirements database.
8	Initial Load Reviewers	This user group will need read/write access to the requirements management tool. Once the requirements are baselined, this user group will disband.	Read/Write access will be granted to users identified as "Initial Load Reviewers"
14	Requirements Management Team	This team will have requirements experts and will be heavy users (Estimate: 3 - 5 people) of the requirements database. This user group will need read/write access to the requirements management tool.	Read/Write access will be granted.
15	Interface Control Team	Will periodically examine the requirements in the system for interfaces to determine their continued applicability	Read/Write access will be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database.
18	Interface Control Team	Will query the database to determine what entities are affected by a change in a requirement.	Read/Write access will be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database.
19	Interface Control Team	Will query the database to determine which entities are responsible for the execution of a requirement.	Read/Write access will be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database.

20	Interface Control Team	This team will have experts in interface requirements (Estimate: 2 - 4 people). The team will need read/write access to the requirements management tool.	Read/Write access will be granted.
21	Project Management Plan Team	May query subsets of requirements and look at relationships between requirements. However, for most of their work they will be dependent on data from the contractors.	Read Only or DOORSNet access will provide the user the ability to review the ORP Requirements and their related links.
26	Change Control Team	Will determine which requirements are part of the technical baseline and what level of approval is necessary for a change to a particular requirement.	Read Only or DOORSNet access can be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database.
28	Life Cycle Team	Must to be able to get a listing of the requirements that relate to important milestones in order to assist with 'What-If' analysis. The completion date is a key attribute of these requirements and needs to be captured.	Read Only or DOORSNet access can be granted allowing users to read, filter, sort, and report on all requirements in the Requirements Management database.
30	Data Administrator	People in this role are experts in how the electronic system(s) works, are familiar with the data, and act as gatekeeper. They will have the capability to make changes to the data structures, backup and restore data, and assist users access the data. They may also apply changes that have been authorized by the change board.	Read/Write/Change access will be granted to Data Administrators. This type of access will allow them to read, write, and change others' access.
31	System Administrator	This is a computer professional who will be responsible for managing the hardware and installing new versions of the software. System Administrators do not need to be familiar with the data or the internals of any electronic tools. They need to know the computer hardware and execute operating system software and software installation	LMSI technical staff will perform system administration duties.

		procedures.	
53	Change Notification for Requirements under the Control of ORP	The system must accommodate unrestricted initiating access for change requests by all individuals and organizational entities within the RPP.	DOORSNet provides the ability to set up a "Guest" user that can submit proposed changes without the need for an actual DOORS user account.
60	Change Control Process	The matrix must be viewable and updateable by a member of the change control team.	DOORS can be configured to only allow a member of the change control team to have access to the matrix.
93	Reliability Requirements	The system must provide archive capabilities.	DOORS provides the ability to archive and restore modules and projects.
94	Security Requirements -- Control access to the requirements -- Levels of Access	The system shall provide several levels of access, from read to update, to the requirements.	DOORS provides Read Only, Read/Write, and Read/Write/Change levels of access.
95	Security Requirements -- Control access to the requirements -- Levels of Access	Access to the system shall be based on network credentials or system specific credentials. The system administrator will have full control over which to use.	A user assigned to the role of system administrator has the ability to define the type of user log-in that will be used with the projects.
96	Security Requirements -- Control access to the requirements -- Levels of Access	The assignment of access level will not require the services of a professional computer scientist.	A user assigned to the role of system administrator has the ability to define the type of user log-in that will be used with the projects.
97	Security Requirements -- Control access to the requirements -- Levels of Access	The system shall be capable of limiting access to subsets of the requirements (rows).	DOORS provides the capability to limit access at the object (row) or attribute (column) levels.
98	Security Requirements -- Control access to the requirements -- Levels of Access	The system shall be capable of limiting access to subsets of the attributes (columns).	DOORS provides the capability to limit access at the object (row) or attribute (column) levels.
99	Security Requirements -- Control access to the requirements -- Levels of Access	Since there is a hierarchical relationship between requirements or categories of requirements, viewing, creation, modification, deletion of requirement elements can be controlled based on the hierarchical levels.	DOORS provides the capability to limit access at the object (row) or attribute (column) levels.
106	Security Requirements -- Control	A small number of people must have the	Read/Write access can be granted

	access to the requirements -- Levels of Access – Approve Change	capability to approve changes to the text of the requirements and apply these changes to the database.	allowing users to approve changes and modify requirements as needed.
107	Security Requirements -- Control access to the requirements -- Levels of Access – Approve Change	A small number of people must be able to change the values of attributes associated with requirements. These people may be prevented from changing the requirement text.	Read/Write access can be granted allowing users to approve changes and modify requirements as needed. DOORS provides the capability to limit access at the object (row) or attribute (column) levels.
110	Security Requirements -- Control access to the requirements -- Levels of Access – Create new versions	The creation of a baseline and new versions will be limited to one or two people.	Read/Write/Change access can be granted to allow administrators to create baseline and new versions.

Testing Set-up

- User is required to be logged on to the Hanford Local Area Network (HLAN)
- DOORS 4.1.4 SR2 (production) must be installed on testing workstation
- Test Case must be performed for each type of user (Read/Write/Admin)
- ORP Requirements Module must be published for DOORSNet use with "Guest" user defined.

Testing Assumptions

- Viewing, filtering, sorting and reporting requirements will be tested by the Read profile. Since DOORS access is inherited by each of the user groups, Write and Administrative profiles have all privileges that are granted to Read users.
- Create and Edit requirements will be tested by the Write profile. Since DOORS access is inherited by each of the user groups, the Administrative profile has all privileges that are granted to Write users.
- Access requirements will be tested by the Administrative profile.

Test Case

PART A - DOORS

Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
1	Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.	✓		✓		✓		
2	Open the ORP Requirements Test project by double clicking on it. Log in as one of the following users: • LMSI Test Admin • LMSI Test Read • LMSI Test Write Password = test	DOORS Project Login window will open displaying a list of available login id's. DOORS Project Manager – ORP Requirements Test window will open displaying a list of available modules.	✓		✓		✓		
3	Open the TPA module by double clicking on it.	The DOORS Formal Module: 'TPA' current 0.2 window will open.	✓		✓		✓		
4	Follow Link • Scroll down to requirement TPA-53 • Right-click on the outgoing link (red) • Click on the "1-Technical" box • Choose the Unloaded Object:605 link.	DOORS will navigate to Unloaded Object:605 object in the 1-Technical module window.	✓		[redacted]				
5	Apply a Filter to locate information within the TPA module • Select Tools -> Filter On the DOORS: Filter window	The DOORS Filter window will display Accepted: 4(3%) and Rejected: 148 near the bottom of the window.	✓						

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Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
	• Accept defalut values. • Select Apply Compound				[redacted]				
6	• Select Close • Inspect the results of the filter in the TPA module	• DOORS: Formal Module 'TPA' current 0.2 will display the 1-Technical view with the results from the filter.	✓						

7	Run a report within the TPA module
	• Select Tools -> Report Wizard
	• Report Wizard -1. Welcome to the Report Wizard
	  • Select Create a New Report
	  • Select Next
	• Report Wizard - 2. Select a View of the Module
	  • Accept default of Use the current presentation
	  • Select Next
	• Report Wizard - 3. Select a Page Layout for the Module
	• Accept default of Create a new Page Layout
	• Select Next
	• Report Wizard - 4. Welcome to the Page Layout Wizard
	• Select Next
	• Layout Wizard - 5. Page Setup
	• Accept all defaults
	• Select Next
	• Layout Wizard - 6. The Title
		• DOORS: Formal Module 'TPA' current 0.2 will display the 1-Technical view with the report results.	✓						

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Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
	Page • Accept default of Include Title Page • Enter Header: "Test Report - " followed by your name (e.g. Test Report - Adria) • Accept default footer information • Select Next • Layout Wizard - 7. The contents Page • Select all defaults • Select Next • Layout Wizard - 8. Module Format • Accept all defaults • Select Next • Layout Wizard - 9. Headers and Footers • Accept all defaults • Select Next • Layout Wizard – 10. Name your Page Layout • Enter your name in the Name field (e. g. Adria) • Select Next • Report Wizard – 11. Test your report • Select View Continue with Wizard • Report Wizard – 11. Test your								

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Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
	report (cont.) • Select Next • Report Wizard – 12. Name your report • Enter Name: "Test " followed by your name (e.g. Test Adria) • Enter Description: Test Report • Select Next • Report Wizard – 13. Finish • Select Finish								
8	Preview the report • Navigate to the DOORS Project Manager window. • Select Tools -> Report Manager On the DOORS: Report Manager window • Highlight Modules: TPA and Reports: Test_<your name> • Select View	• DOORS: Formal Module 'TPA' current 0.2 will display the Test <your name> View.	✓						
9	Preview the results of the report in print preview • Select Module -> Print Preview • Accept default printer and pages All • Select Preview	• DOORS: Print Preview 'TPA' window will be displayed.	✓						
10	• Close the Print Preview window. • Close the Report Manager window • Turn off the filter by selecting the filter icon on the DOORS	DOORS: Formal Module 'TPA' current 0.2 will display 1-Technical view in its original format containing all requirements.	✓						

Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
	tool bar. The filter icon looks like a funnel.								
11	Create a new attribute • Select Attribute • Select Define • Accept Default Applies to Objects • Enter Name: Completed Date • Select Type: Date • Accept Default of Value: No Default • Select all options on Attribute should (Generate History, Affect Change Dates, Affect Change Bars) • Select Create • Select Close	**Read Users:** All fields will be unavailable (gray). Select Close. **Write Users:** Before Selecting Close on the Define Attribute window, the newly created attribute "Completed Date" will appear in the Attributes list	✓		✓				
12	Insert the Completed Date attribute (Select Column -> New -> On the Attribute pull down menu, select the attribute name -> Select Insert)	**Read Users:** Completed Date Attribute will not be available to add to the view. Select Close. **Write Users:** A new blank column will be created with the title of Completed Date.	✓		✓				
13	Make a change to TPA Module • Double-click on the first object in the (4) Req? column • Change the value to False. • Move the cursor out of the cell by clicking somewhere else on	**Read Users:** The object will not be opened to edit. The change before the RPP Milestones column will remain yellow.	✓		✓				

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Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
	the screen.	**Write Users:** The change bar before the RPP Milestones column on the row of the changed cell will be red, indicating a change has been made to the object.							
14	Double-click on the change bar, to inspect the change	**Read Users:** The DOORS: History window will open and will display the changes that have been made to the object. Notice there are no modification descriptions to the selected row for the current date **Write Users:** The DOORS: History window will open and will display the changes made to the object. Notice the modification describes the change made above.	✓		✓				
15	Insert a new object • Select the first object by clicking on it. • Select Object -> New one level down	**Read Users:** The New and New one level down options are unavailable (gray) **Write Users:** A new empty object will be inserted below the selected row.	✓		✓				
16	• Close the TPA Module • If prompted to save, select yes	DOORS: Project Manager window will be displayed	✓		✓				
17	Create a new formal module • Select Module -> New Formal	**Write Users:** The DOORS Formal Module:	✓		✓				

RPP-6251 REV. 0

Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
	Module On the New Formal Module window • Enter Formal Module Name: Test-Access <logon type> (Ex., Test Access –Read) • Enter Description: Test Access • Enter Absolute Numbers Start At: 1 • Enter Absolute Numbers Prefix: acc • Select Create	'Test-Access <login tyep>' current 0.0 window will open.							
18	• Close the Test-Access Module • If prompted to save, select yes	DOORS: Project Manager window will be displayed	✓		✓				
19	Delete the Test-Access Module • Select the Test-Access <login type> Module by single-clicking on it. • Select Module -> Delete	**Read Users:** DOORS Report window will appear with message: cannot delete module 'Test-Access': Only an administrator can carry out this option. Select OK. **Write Users:** Module 'Test-Access' will no longer appear in the Project manager window.	✓		✓				
20	Open the TPA module by double clicking on it.	The DOORS Formal Module: 'TPA' current 0.2 window will open.	✓		✓		✓		
21	Restrict Access to the TPA Module • Select Module -> Access	DOORS: Edit Access Rights: Module window will be displayed.	✓		✓		✓		

Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
		Read/Write Users: All fields will be unavailable (gray) Select Close. Skip to Step 36.							
22	• Accept Default Access Rights of Read • Select LMSI Test Write:RW from the Users with defined rights box • Uncheck the Write access box by clicking on it. • Select Apply Access Rights	**Admin Users:** The LMSI Test Write: RW user will change to LMSI Test Write: R					✓		
23	• Select Apply • Select Close	**Admin Users:** Changes will be applied to module.					✓		
24	• Close the ORP Requirements Project	DOORS Session will end			✓				
25	Check Access Changes have been applied • Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.			✓				
26	• Open the ORP Requirements project by double clicking on it. • Log in as LMSI Test Write	DOORS Project Login window will open displaying a list of available login id's. DOORS Project Manager – ORP Requirements Test window will open displaying a list of available modules.			✓				

Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
27	• Open the TPA module by double clicking on it.	The DOORS Formal Module: 'TPA' current 0.0 window will open.			✓				
28	• Make a change to the Project Overview Module o Double-click on the 1 Formal object.	The object will not be opened to edit.			✓				
29	• Close the TPA Module • Close the ORP Requirements Project	DOORS Session will end			✓				
30	Return module access to RW • Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.					✓		
31	• Open the ORP Requirements project by double clicking on it. • Log in as LMSI Test Admin	DOORS Project Login window will open displaying a list of available login id's. DOORS Project Manager – ORP Requirements Test window will open displaying a list of available modules.					✓		
32	• Open the TPA module by double clicking on it.	The DOORS Formal Module: 'TPA' current 0.0 window will open.					✓		
33	Restore LMSI Test Write user access to the TPA Module • Select Module -> Access	DOORS: Edit Access Rights: Module window will be displayed.					✓		

Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
34	• Accept Default Access Rights of Read • Select LMSI Test Write:R from the Users with defined rights box • Check the Read and Write access boxes by clicking on them. • Select Apply Access Rights	The LMSI Test Write: R user will change to LMSI Test Write: RW					✓		
35	• Select Apply • Select Close	Changes will be applied to module.					✓		
36	Restrict Access to the 1 Formal Object • Highlight the 1 Formal object by clicking on it. • Select Object -> Access	DOORS: Edit Access Rights: Object window will be displayed. **Read/Write Users:** All fields will be unavailable (gray). Select Close. Skip to Step 51.	✓		✓		✓		
37	• Select the radio button Access Rights are: Specific. • Accept Default Access Rights of Read • Select LMSI Test Write:RW from the Users with defined rights box • Uncheck the Write access box by clicking on it. • Select Apply Access Rights	The LMSI Test Write: RW user will change to LMSI Test Write: R					✓		
38	• Select Apply • Select Close	Changes will be applied to object.					✓		
39	Check Access Changes have been	DOORS Session will end					✓		

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Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
	applied • Close the ORP Requirements Project								
40	• Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.					✓		
41	• Open the ORP Requirements project by double clicking on it. • Log in as LMSI Test Write	DOORS Project Login window will open displaying a list of available login id's. DOORS Project Manager – ORP Requirements Test window will open displaying a list of available modules.			✓				
42	• Open the TPA module by double clicking on it.	The DOORS Formal Module: 'TPA' current 0.0 window will open.			✓				
43	• Double-click on the 1 Formal object.	The object will not be opened to edit.				✓			"LMSI Test Write" user appears to have read-only access to ALL objects in the TPA module.
44	• Close the TPA Module • Close the ORP Requirements Project	DOORS Session will end			✓				
45	Return module access to RW • Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS	DOORS: Project Manager window will open displaying a list of available projects.					✓		

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Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
	Production)								
46	• Open the ORP Requirements project by double clicking on it. • Log in as LMSI Test Admin	DOORS Project Login window will open displaying a list of available login id's. DOORS Project Manager – ORP Requirements Test window will open displaying a list of available modules.					✓		
47	• Open the TPA module by double clicking on it.	The DOORS Formal Module: 'TPA' current 0.0 window will open.					✓		
48	Restore Access to the 1 Formal Object • Highlight the 1 Formal object by clicking on it. • Select Object -> Access	DOORS: Edit Access Rights: Module window will be displayed.					✓		
49	• Accept Default Access Rights of Read • Select LMSI Test Write:R from the Users with defined rights box • Check the Read and Write access boxes by clicking on them. • Select Apply Access Rights	The LMSI Test Write: R user will change to LMSI Test Write: RW					✓		
50	• Select Apply • Select Close	Changes will be applied to module.					✓		
51	Restrict Access to the Total Reqs. Attribute • Select Attribute -> Define • Select the (4) Total Reqs.	DOORS: Define Attribute window will be displayed. **Read/Write Users:**	✓		✓		✓		

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Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
	attribute from the Attributes box • Select Edit access rights for: Values box.	All fields will be unavailable (gray). Select Close. Skip to Step 61.							
52	• Select the radio button Access Rights are: Specific. • Select LMSI Test Write:RW from the Users with defined rights box • Uncheck the Write access box by clicking on it. • Select Apply Access Rights	DOORS: Edit access rights: Attribute values: '(4) Total Reqs.' window will be displayed. **Admin Users:** The LMSI Test Write: RW user will change to LMSI Test Write: R					✓		
53	• Select Apply • Select Close	**Admin Users:** Changes will be applied to attribute.					✓		
54	Check Access Changes have been applied • Close the ORP Requirements Project	DOORS Session will end					✓		
55	• Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.					✓		
56	• Open the ORP Requirements project by double clicking on it. • Log in as LMSI Test Write	DOORS Project Login window will open displaying a list of available login id's. DOORS Project Manager – ORP Requirements Test window will open displaying a list of available modules.			✓				

Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
57	• Open the TPA module by double clicking on it.	The DOORS Formal Module: 'TPA' current 0.0 window will open.			✓				
58	Change Views • Select Test View from the Available Views pull-down box.	DOORS: Formal Module 'TPA' current 0.0 will display the Test View.			✓				
59	• Double-click on any (4) Total Reqs. field.	The object will not be opened to edit.			✓				
60	• Close the TPA Module • If prompted to save, select yes	DOORS: Project Manager window will be displayed			✓				
61	• Close the ORP Requirements Project	DOORS Session will end			✓				
62	Archive Module • Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.			✓		✓		
63	• Open the ORP Requirements project by double clicking on it. Log in as one of the following users: • LMSI Test Admin • LMSI Test Read • LMSI Test Write	DOORS Project Login window will open displaying a list of available login id's. DOORS Project Manager – ORP Requirements Test window will open displaying a list of available modules.	✓		✓		✓		

Step Num	Instruction	Expected Result	Read User		Write User		Admin User		Comments
			Pass	Fail	Pass	Fail	Pass	Fail	
64	• Highlight the TPA module • Select Module -> Archive. • Accept default path of "C:\Program Files\DOORS\bin\TPA.zip" • Select Archive	DOORS: The module 'TPA has links attached. Restoring this module at a later date could cause data corruption if the sources and targets of each link are not present. Continue anyway?	✓		✓		✓		
65	• Select OK	Module is archived to directory specified.	✓		✓		✓		
66	Restore Module • Ensure the TPA module is highlighted. • Select Module -> Restore	DOORS: Restore Module Opens	✓		✓		✓		
67	• Accept the default path of "C:\Program Files\DOORS\bin" • Click the Select… button.	DOORS: File Selector window opens.	✓		✓		✓		
68	• Choose "TPA.zip" • Select Open	DOORS: Restore Module window Opens	✓		✓		✓		
69	• Select Restore	DOORS: Restore Module window displays date of archive and module name.	✓		✓		✓		
70	• Select Restore	DOORS Restores archived module.	✓		✓		✓		
71	Exit DOORS • Close the ORP Requirements Test project	DOORS Session will end.	✓		✓		✓		

PART B – DoorsNet Guest User Access

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	• Open Internet Explorer (Start ->Programs->Internet Explorer) • **Enter version number in comment field of this test script** (version is shown on title bar of Internet Explorer, e. g. "Hanford Intranet - Microsoft Internet Explorer ***5.01*** Hanford ESDS [990712]")	Internet Explorer should open with the Hanford Intranet home page visible.	✓		All Testers entered Internet Explorer Version 5.01
2	Access the DOORSNet access page by entering the following URL in the Address field: http://apdoorswprd/doorsnet	The DOORSNet access page will open displaying "Welcome to DOORSNet" near the top of the page.	✓		
3	Enter your name and email address in the appropriate fields and select OK. Example: Name: Adria Johnson Email address: adria_l_johnson@rl.gov	DOORSNet Access Page for the user will be displayed. User name will be included in the title near the top of the page. Example: DOORSNet Access Page for Adria Johnson	✓		
4	• (Bookmark page?) • Select the ORP Requirements Test project • Enter User Name **Guest** • Enter Password **guest** • Select OK	DOORSNet page displaying available modules in the ORP Requirements Test project will be displayed. "Please select a view" will be displayed near the top of the page.	✓		
5	• Select Close Project	DOORSNet Access Page for the user will be displayed. User name will be included in the title near the top of the page.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
6	• Close Internet Explorer	Internet Explorer will close without incident.	✓		

Tested by: < Original working copies of test cases signed by testers > <April 11, 2000>

Print and Sign Name Date

8.6 Test Case Number: DOORS-6

Test Case Title: DOORS System Testing

Introduction

DOORS system testing consists of set of system tests from the user point of view. Because of the different items needing testing, DOORS system testing consists of a set of test cases instead of just one test case. The system testing test cases are number in the 6.xx format where xx ranges from 01 to 06.

Because of the multiple test cases, the Requirements to be verified table has an extra column, DOORS 6 Test Cases, to show what test cases involve the each requirement.

The last section, 6 System Testing test cases, consists of a table that lists each test case and is to be used as a summary list for the results of individual test cases. For each test case, table consists of the following columns: the test case number; the test case title; the requirements that the test case helps to verified are listed; whether the individual test case passed; whether the individual test case failed; and a column for any summary comments from the individual test case.

This document is broken into the following sections:

- Introduction
- Requirements to be verified
- Test cases
- Testing set-up
- 6 System Testing test cases

Requirements to be verified

No.	Requirement Description	DOORS 6 Test Cases
85	The electronic system must have the look and feel of a Windows application.	6.01 DOORS PC Client General System Test 6.02 DOORSNet Client General System Test
86	The software must provide standard Windows editing features, such as highlight, cut, copy, paste, change, delete, and insert	6.01 DOORS PC Client General System Test
91	The software shall provide a maximum screen refresh time of 1/2 second for a standard Hanford	6.03 DOORS PC Manual Single User Performance Test 6.04 DOORSNet Manual Single User Performance Test

	workstation.	
121	On-line help must be available.	6.01 DOORS PC Client General System Test 6.02 DOORSNet Client General System Test
122	Client software must be capable of operating on a minimum workstation of Pentium 300 MHz, 64 MB RAM and 6 GB hard disk for editing and a minimum Pentium 100 MHz for read-only.	6.01 DOORS PC Client General System Test 6.02 DOORSNet Client General System Test
123	The tool must support up to 20 concurrent users.	6.05 DOORS PC Manual Multiple Users Performance Test 6.06 DOORSNet Manual Multiple Users Performance Test

Test cases

This document groups together all the test cases that are part of DOORS System Testing. System testing includes both the DOORS PCproduct and the DOORSNet product.

The DOORS System Testing Test Cases are:

- DOORS 6.01 – DOORS PC Client General System Test
- DOORS 6.02 – DOORSNet Client General System Test
- DOORS 6.03 – DOORS PC Manual Single User Performance Test
- DOORS 6.04 – DOORSNet Manual Single User Performance Test
- DOORS 6.05 – DOORS PC Manual Multiple Users Performance Test
- DOORS 6.06 – DOORSNet Manual Multiple Users Performance Test

Testing set-up

- Ensure Internet Explorer 4.0 or higher is installed on workstations used to access DOORS through DOORSNet
- Ensure DOORS PC is installed on workstations used to access DOORS through DOORS PC
- Users are required to be logged on to the Hanford Local Area Network (HLAN)

6 System Testing test cases

Test Case	Title	Requirements To Be Verified	Pass	Fail	Comments
01	DOORS PC Client General	85 The electronic system must have the look and	✓		

Test Case	Title	Requirements To Be Verified	Pass	Fail	Comments
	System Test	feel of a Windows application. 86 The software must provide standard Windows editing features, such as highlight, cut, copy, paste, change, delete, and insert 121 On-line help must be available. 122 Client software must be capable of operating on a minimum workstation of Pentium 300 MHz, 64 MB RAM and 6 GB hard disk for editing			
02	DOORSNet Client General System Test	85 The electronic system must have the look and feel of a Windows application. 121 On-line help must be available. 122 Client software must be capable of operating on ..... and a minimum Pentium 100 MHz for read-only.	✓		
03	DOORS PC Manual Single User Performance Test	91 The software shall provide a maximum screen refresh time of 1/2 second for a standard Hanford workstation.	✓		
04	DOORSNet Manual Single User Performance Test	91 The software shall provide a maximum screen refresh time of 1/2 second for a standard Hanford workstation.	✓		
05	DOORS PC Manual Multiple Users Performance Test	123 The tool must support up to 20 concurrent users.	✓		
06	DOORSNet Manual Multiple Users Performance Test	123 The tool must support up to 20 concurrent users.		✓	

Tested by: < Original working copies of test cases signed by testers > <April 12, 2000>

Print and Sign Name Date

8.7 Test Case Number: DOORS-6.01

Test Case Title: DOORS PC Client General System Test

Introduction

The purpose of this test, DOORS PC Client General System Test, is to make sure that some of the general application requirements are met with DOORS PC, the Windows client version of the software.

This test verifies the listed requirements in the following manner:

- 85 - Checks for some of the look and feel of a Windows application.
- 86 - Checks some of the standard Windows editing features.
- 121 - On-line help is brought up.
- 122 - Editing of a cell from a row and column of a module is done on a workstation that is equal or less than the minimum requirement for editing on DOORS.

Requirements to be verified

No.	Requirement Description
85	The electronic system must have the look and feel of a Windows application.
86	The software must provide standard Windows editing features, such as highlight, cut, copy, paste, change, delete, and insert
121	On-line help must be available.
122	Client software must be capable of operating on a minimum workstation of Pentium 300 MHz, 64 MB RAM and 6 GB hard disk for editing .....

Testing Set-up

- User is required to be logged on to the Hanford Local Area Network (HLAN)
- Workstation needs to be less or equal to 300 MHz Pentium and less or equal to 64 MB of RAM
- DOORS 4.1.4 SR2 (production) must be installed on testing workstation
- The Car project exists on the DOORS database server
- Bill Young is an administrator on the Car project and does not need a password

Test Information

Workstation Information

- ID: [WC64389 (aj)] [WC63606 (sm)]
- Pentium Speed: [200 Mhz (aj)] [200 Mhz (sm)]
- RAM: [64.0 Mb (aj)] [32.0 Mb (sm)]

Test Case

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.	✓		
	Requirement 85 Test Steps (2-5): **The electronic system must have the look and feel of a Windows application.**				
2	Click on the DOORS icon on the left side of the title bar of the DOORS: Project Manager window.	The standard windows pop-up menu pops up with the standard menu items of Restore, Move, Size, Minimize, Maximize, and Close being displayed. The menu item, Restore, is grayed out as inactive.	✓		
3	Maximize DOORS: Project Manager window and then return the window to normal size using the window title area 1. Double-click on the window title area. 2. Double-click again on the window title area.	Corresponding results are: 1. The DOORS: Project Manager window maximizes to fill the desktop free area. The DOORS: Project Manager window returns to the same location and size as it was before the first double-click.	✓		
4	Minimize DOORS: Project Manager window and then return the window to normal size using the minimize icon on the window title bar. 1. Click on the minimize icon that is the	Corresponding results are: 1. The DOORS: Project Manager window disappears from the desktop free area. The DOORS: Project Manager window	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	first icon on the right side of the window title area. 2. Click on the DOORS: Project Manager button on the task bar.	returns to the same location and size as it was before it was minimized.			
5	Maximize DOORS: Project Manager window and then return the window to normal size using the maximize icon on the window title bar. 1. Click on the maximize icon that is the second icon on the right side of the window title are. 2. Click on the maximize icon again.	Corresponding results are: 1. The DOORS: Project Manager window maximizes to fill the desktop free area. The DOORS: Project Manager window returns to the same location and size as it was before the first click.	✓		
	Requirement 121 Test Steps (6): **On-line help must be available.**				
6	Bring up help 1. From the menu bar click on Help, then Content 2. Press the Cancel button on the Help Topics: DOORS Reference window	Corresponding results are: 1. The Help Topics: DOORS Reference window is displayed. 2. The Help Topics: DOORS Reference window disappears	✓		
	Requirement 122 Test Steps (7-9, 12-14): **Client software must be capable of operating on a minimum workstation of Pentium 300 MHz, 64 MB RAM and 6 GB hard disk for editing .....**				
7	Open the Car project 1. Double-click on the Car project 2. Double-click on Bill Young	Corresponding results are: 1. DOORS: Project Login dialog window comes up. 2. DOORS: Project Login dialog windows disappears and the DOORS: Project Manager window changes to the list of modules for the project and the window title to DOORS: Project Manager - Car	✓		
8	Open the Car scenario module of the Car	Corresponding results are:	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	project 1. Double-click on the Car scenario item in the module list in the DOORS: Project Manager - Car window	1. The DOORS Formal Module 'Car scenario' current 0.0 window is displayed. The module view name is Standard view Should take no more than 7 or 8 seconds to bring up.			
9	Change to "Comment" view from "Standard view" view 1. Click on the "Available views" drop down list box on the tool bar and select the "Comment" item	Corresponding results are: 1. The active area of the module window changes to the "Comment" view of the Car scenario module. Should take less than a 1/2 second to switch views.	✓		
	Requirement 86 Test Steps (10-11): **The software must provide standard Windows editing features, such as highlight, cut, copy, paste, change, delete, and insert.**				
10	Test editing features in the edit mode for cell at the Comments column for Reqt No. OS2 1. Go to the row with OS2 in the "Reqt No." column 2. Double-click on the cell under the "Comments" Column for the row 3. Type the following: Data Test Data for Case 6.01 4. Highlight the second "Data" in the Comments cell 5. Press the "Delete" key on the keyboard 6. Press the "Delete" key on the keyboard again 7. Highlight "Test" and the space to the	Corresponding results are: 1. The mouse cursor is over the wanted cell 2. Cell enters into editing mode, text cursor at beginning of cell. 3. The cell shows "Data Test Data for Case 6.01" 4. The second "Data" is highlighted 5. The second "Data" disappears and there are two spaces between "Test" and "for" 6. One of the two spaces disappears. Cell shows "Data Test for Case 6.01" 7. "Test" and the space to the right	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	right of it in the Comments cell. 8. Right-click the mouse to bring up the editing pop up menu 9. Select "Cut" menu item 10. Click on the beginning of the cell 11. Right-click the mouse to bring up the editing pop up menu 12. Select "Paste" menu item 13. At the beginning of the cell, highlight "Test" and the space to the right of it. 14. Enter in the key stroke combination of Ctrl and C 15. Click at the beginning of "Case" 16. Enter in the key stroke combination of Ctrl and V	of it are highlighted. 8. Pop up menu for edit appears. 9. The pop up menu disappears along with the highlighted text. Cell shows "Data for Case 6.01" 10. Text cursor is at the beginning of the cell 11. Pop up menu for edit appears. 12. The pop up menu disappears and "Test" with the space to right of it appears at the beginning of the cell. Cell shows "Test Data for Case 6.01" 13. "Test" and the space to the right of it are highlighted 14. Same characters are highlighted 15. Highlight on characters disappear and text cursor is just to the left of "Case" 16. "Test" with a space to the right of it appears just in front of "Case". Cell shows "Test Data for Test Case 6.01"			
11	Make the text in the Comments column for Reqt No. OS2, the value 1. Click on a different row.	Corresponding results are: 1. Text is now the value of the cell	✓		
	<u>Requirement 122 Test Steps (7-9, 12-14):</u> **Client software must be capable of operating on a minimum workstation of Pentium 300 MHz, 64 MB RAM and 6 GB hard disk for editing .....**				
12	Save the data. 1. From the menu bar, select Module, then Save	Corresponding results are: 1. After no more than 7 or 8 seconds, the busy icon for the	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
		mouse will return to the standard icon.			
13	Clear the entered test data 1. Double-click on the cell with the test data 2. Clear the data 3. Click on a different row	Corresponding results are: 1. Cell enters into editing mode, text cursor at beginning of cell 2. No text in cell 3. Cell has no value	✓		
14	Save the change. 1. From the menu bar, select Module, then Save	Corresponding results are: 1. After no more than 7 or 8 seconds, the busy icon for the mouse will return to the standard icon.	✓		
15	Exit DOORS PC 1. Exit Car scenario module window 2. Exit DOORS: Project Manager - Car project window	Corresponding results are: 1. Car scenario module window disappears 2. DOORS: Project Manager - Car project windows disappears	✓		

Tested by: < Original working copies of test cases signed by testers > <April 12, 2000>

Print and Sign Name Date

8.8 Test Case Number: DOORS-6.02

Test Case Title: DOORSNet Client General System Test

Introduction

The purpose of this test, DOORSNet Client General System Test, is to make sure that some of the general application requirements are met with DOORSNet through the use of Internet Explorer 4.0.

This test verifies the listed requirements in the following manner:

- **85** - Since the test is done using Internet Explorer, if the test is successful, then this requirement will be met, because Internet Explorer is included with Windows and by definition has the look and feel of a Windows application.
- **121** - On-line help within DOORSNet is brought up.
- **122** - Going from the first page to the second page of a module is used to verify that ability to run on a 100 MHz Pentium workstation.

Requirements to be verified

No.	Requirement Description
85	The electronic system must have the look and feel of a Windows application.
121	On-line help must be available.
122	Client software must be capable of operating on ..... and a minimum Pentium 100 MHz for read-only.

Testing Set-up

- User is required to be logged on to the Hanford Local Area Network (HLAN)
- Workstation needs to be less or equal to 100 MHz Pentium and less or equal to 64 MB of RAM
- Internet Explorer 4.0 or greater must be installed on testing workstation
- The Car project exists on the DOORS database server and is published to DOORSNet.
- Bill Young is an administrator on the Car project and does not need a password
- 30 DOORS objects are displayed per DOORSNet web page

Test Information

Workstation Information

- ID: [WC64389 (aj)] [WC63606 (sm)] [WC59663 (rs)]
- Pentium Speed: [200 Mhz (aj)] [200 Mhz (sm)] [100 Mhz (rs)]
- RAM: [64.0 Mb (aj)] [32.0 Mb (sm)] [32.0 Mb (rs)]

Test Case

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	Bring up Internet Explorer 1. Double-click on the Internet Explorer Icon on the Windows desktop 2. Maximize Internet Explorer • **Enter version number in comment field of this test script** (version is shown on title bar of Internet Explorer, e. g. "Hanford Intranet - Microsoft Internet Explorer ***5.01*** Hanford ESDS [990712]")	Corresponding results are: 1. A normal size window of Internet Explorer is the top window on the desktop 2. Internet Explorer fills the free area of the desktop	✓		Version 5.01 (aj & sm) Version 4.01 SP2 (rs)
	If the tester does not have "DOORSNet Test Access page" bookmark for the DOORSNet Logon web page, do steps 2 though 4, else go to step 5				
2	Access the DOORSNet access page 1. Enter the following URL in the Address field of Internet Explorer: http://apdoorswprd/doorsnet	Corresponding results are: 1. The DOORSNet access page will open displaying "Welcome to DOORSNet" near the top of the page.	✓		
3	Enter in your name and email address 1. Enter your name and email address in the appropriate fields and select OK. Example:	Corresponding results are: 1. DOORSNet Access Page for the user will be displayed. User name will be included in the title near the top of the	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	Name: Adria Johnson Email address: adria_l_johnson@rl.gov	page. Example: DOORSNet Access Page for Adria Johnson			
4	Bookmark page 1. From the menu bar, click on "Favorites", then "Add to Favorites..." menu item 2. Change "DOORSNet Access Page" to "DOORSNet Test Access Page" in Name field. 3. Press the OK button	Corresponding results are: 1. "Add Favorite" dialog window comes up. 2. Name field has "DOORSNet Test Access Page" as its value. 3. The "Add Favorite" dialog window disappears.	✓		
	Go to step 6				
	The tester has the "DOORSNet Test Access page" bookmark				
5	Select the "DOORSNet Test Access page" bookmark 1. From the menu bar, click on "Favorites", then "DOORSNet Test Access page" menu item	Corresponding results are: 1. DOORSNet Access Page for the user will be displayed. User name will be included in the title near the top of the page. Example: DOORSNet Access Page for Adria Johnson	✓		
	<u>Requirement 121 Test Steps:</u> **On-line help must be available.**				
6	Bring up "Using DOORSNet" in a separate web browser window 1. Click in the text portion of the "Help" bullet on the left side of the top of the	Corresponding results are: 1. A pop up window is displayed listing help options to choose. 2. A separate web browser	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	web page. 2. Click in the text portion of the "Online Help" bullet of the pop up window	window is displayed titled "Using DOORSNet"			
7	Close the "Using DOORSNet" Internet Explorer window	The "Using DOORSNet" Internet Explorer window disappears.	✓		
	Requirement 122 Test Steps: **Client software must be capable of operating on ..... and a minimum Pentium 100 MHz for read-only.**				
8	Logon to the Car project 1. Make sure that the Car project is selected from the list of projects 2. Enter in "Bill Young" in the username field 3. Click on the OK button	Corresponding results are: 1. The radio button for the Car project is selected. 2. Bill Young is the value in the username field. 3. The web page is replaced with the "DOORSNet View selection" web page	✓		
9	Select a module and view. 1. Select the "...Standard view" list item just under the "Car scenario" list item. 2. Make sure that the "Table format" web page format is selected. 3. Make sure that the "Show pictures" check item is selected. 4. Click on the OK button	Corresponding results are: 1. The "...Standard view" list item just under the "Car scenario" list item is highlighted. 2. The radio button for "Table format" is selected. 3. The check box for "Show pictures" is checked. 4. The web page is replaced with the "DOORSNet: View content" web page showing the first page of the Table view" for the "Standard view of the "Car scenario" module.	✓		
10	Go to the second page	Corresponding results are:	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	1. Click on the single right white arrow on the right side of the dark web bar that has the module and view name on it.	1. The first web page is replaced by the second web page			
11	Close project 1. Click on the text portion of the "Close project" bullet that is near the center and top of the dark DOORSNet web bar.	Corresponding results are: 1. The second web page is replaced by the "DOORSNet: Access page" web page.	✓		
12	Exit web browser	Web browser disappears	✓		

Tested by: < Original working copies of test cases signed by testers > <April 12, and April 13, 2000>

Print and Sign Name

Date

8.9 Test Case Number: DOORS-6.03

Test Case Title: DOORS PC Manual Single User Performance Test

Introduction

The purpose of this test, DOORS PC Manual Single User Performance Test, is to check baseline performance of the DOORS PC Windows client application against the DOORS Database. DOORS PC performance is affected by whether or not data needs to be access from the DOORS database. This test case tests both the performance when data is not needed from the database and when it is needed from the database. For testing when the data is not needed from the database, switching views is used and determines whether DOORS PC is meeting requirement 91, "The software shall provide a maximum screen refresh time of 1/2 second for a standard Hanford workstation". For testing when the data is needed form the database, the loading times of 4 modules within the "ORP Requirements Test" project is used. These modules were chosen for their differences in sizes. See table below.

Information on modules used for this test case

Test Step	Module	# of Objects	# of Chars	Expected Loading Time (Seconds)
2	TPA	152	26,515	<= 10
3	Permits	1,026	376,468	<= 15
4	CHG Contract	1,764	778,481	<= 15
5	SRIDs	6,745	1,792,624	<= 30

The "ORP Requirements Test" project needs be refreshed from the production "ORP Requirements" project every once in a while. The numbers in the above table will need to be changed to reflect the size and complexity of the project when a refresh of data occurs for the "ORP Requirements Test" project.

This test verifies the listed requirements in the following manner:

- 91 - Checks the performance for data access by the loading of a set of modules with their default views and then its refresh capabilities by switching views.

Requirements to be verified

No.	Requirement Description

91	The software shall provide a maximum screen refresh time of 1/2 second for a standard Hanford workstation.

Testing Set-up

- User is required to be logged on to the Hanford Local Area Network (HLAN)
- Workstation needs to be less or equal to 300 MHz Pentium and less or equal to 64 MB of RAM
- DOORS 4.1.4 SR2 (production) must be installed on testing workstation
- The "ORP Requirements Test" project exists on the DOORS database server
- "LMSI Test Read" is a user on the "ORP Requirements Test" project

Test Information

Workstation Information

- ID: [WC64389 (aj)] [WC63606 (sm)]
- Pentium Speed: [200 Mhz (aj)] [200 Mhz (sm)]
- RAM: [64.0 Mb (aj)] [32.0 Mb (sm)]

Test Case

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	**Test Case Setup**				
1.1	Open DOORS using Production Server Data (Start->Programs->DOORS->DOORS Production)	DOORS: Project Manager window will open displaying a list of available projects.	✓		
1.2	Open the "ORP Requirements Test" project 3. Double-click on the "ORP Requirements Test" project 4. Click on "LMSI Test Read" 5. Enter the password and press the enter key. (Ask the test lead if you do not know the password)	Corresponding results are: 3. DOORS: Project Login dialog window comes up. 4. The Password field becomes active. 5. DOORS: Project Login dialog windows disappears and the DOORS: Project Manager window changes to the list of	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
		modules for the project and the window title to "DOORS: Project Manager - ORP Requirements Test"			
2	**Test steps with the "TPA" module of the "ORP Requirements Test" project**				
2.1	Open the "TPA" module and **record the number of seconds it takes to open** in the Comments column 2. Double-click on the "TPA" item in the module list in the "DOORS: Project Manager - ORP Requirements Test" window	Corresponding results are: 2. The "DOORS Formal Module 'TPA' current 0.2" window is displayed. The module view name is "Review" Should take no more than 10 seconds to bring up.	✓		2 seconds (aj) 4 seconds (sm)
2.2	Change to "Standard view" view from "1-Technical" view and **keep track if it takes more than 1/2 seconds to switch views**. 2. Click on the "Available views" drop down list box on the tool bar and select the "Standard view" item	Corresponding results are: 2. The active area of the module window changes to the "Standard view" view. Should take less than a 1/2 second to switch views.	✓		
2.3	Close the module	The DOORS Formal Module 'TPA' current 0.2" window disappears	✓		
3	**Test steps with the "Permits" module of the "ORP Requirements Test" project**				
3.1	Open the "Permits" module and **record the number of seconds it takes to open** in the Comments column 1. Double-click on the "Permits" item in the module list in the "DOORS: Project Manager - ORP Requirements Test" window	Corresponding results are: 1. The "DOORS Formal Module 'Permits' current 0.0" window is displayed. The module view name is "Review" Should take no more than 15 seconds to bring up.	✓		6 seconds (aj) 7 seconds (sm)
3.2	Change to "Standard view" view from "Review-all" view and **keep track if it takes more than 1/2 seconds to switch views**.	Corresponding results are: 1. The active area of the module window changes to the	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	1. Click on the "Available views" drop down list box on the tool bar and select the "Standard view" item	"Standard view" view. Should take less than a 1/2 second to switch views.			
3.3	Close the module	The DOORS Formal Module 'Permits' current 0.0" window disappears	✓		
4	**Test steps with the "CHG Contract" module of the "ORP Requirements Test" project**				
4.1	Open the "CHG Contract" module and **record the number of seconds it takes to open** in the Comments column 1. Double-click on the "CHG Contract" item in the module list in the "DOORS: Project Manager - ORP Requirements Test" window	Corresponding results are: 1. The "DOORS Formal Module 'CHG Contract' current 0.2" window is displayed. The module view name is "Review" Should take no more than 15 seconds to bring up.	✓		7 seconds (aj) 7 seconds (sm)
4.2	Change to "Standard view" view from "1-Technical" view and **keep track if it takes more than 1/2 seconds to switch views**. 1. Click on the "Available views" drop down list box on the tool bar and select the "Standard view" item	Corresponding results are: 1. The active area of the module window changes to the "Standard view" view. Should take less than a 1/2 second to switch views.	✓		
4.3	Close the module	The DOORS Formal Module 'CHG Contract' current 0.2" window disappears	✓		
5	**Test steps with the "SRIDs" module of the "ORP Requirements Test" project**				
5.1	Open the "SRIDs" module and **record the number of seconds it takes to open** in the Comments column 1. Double-click on the "SRIDs" item in the module list in the "DOORS: Project Manager - ORP Requirements Test" window	Corresponding results are: 1. The "DOORS Formal Module 'SRIDs' current 0.1" window is displayed. The module view name is "Review" Should take no more than 30 seconds to bring up.	✓		18 seconds (aj) 23 seconds (sm)

Step Num	Instruction	Expected Result	Pass	Fail	Comments
5.2	Change to "Standard view" view from "Review" view and **keep track if it takes more than 1/2 seconds to switch views**. 1. Click on the "Available views" drop down list box on the tool bar and select the "Standard view" item	Corresponding results are: 1. The active area of the module window changes to the "Standard view" view. Should take less than a 1/2 second to switch views.	✓		
5.3	Close the module	The DOORS Formal Module 'SRIDs' current 0.1" window disappears	✓		
6	Exit DOORS PC 3. Exit "DOORS: Project Manager - ORP Requirements Test" project window	Corresponding results are: 3. "DOORS: Project Manager - ORP Requirements Test" project windows disappears	✓		

Tested by: < Original working copies of test cases signed by testers > <April 12, 2000>

Print and Sign Name

Date

8.10 Test Case Number: DOORS-6.04

Test Case Title: DOORSNet Manual Single User Performance Test

Introduction

The purpose of this test, DOORSNet Manual Single User Performance Test, is to check baseline performance of DOORSNet through the web browser against the DOORS Database. The web browser performance is affected by whether or not data needs to be access through DOORSNet from the DOORS database. This test case tests both the performance when data is not needed from the database and when it is needed from the database. For testing when the data is not needed from the database, movement around the web page is used and determines whether the web browser interface to DOORSNet is meeting requirement 91, "The software shall provide a maximum screen refresh time of 1/2 second for a standard Hanford workstation". Going to another view was not used because DOORSNet access the database when going to another view. This is different from DOORS PC, where the data is already on the workstation from the initial loading of the module. For testing when the data is needed from the database, the test steps for first web page and second web page access for 4 modules within the "ORP Requirements Test" project are used. These modules were chosen for their differences in sizes. See table below.

Information on modules used for this test case

Test Step	Module	# of Objects	# of Chars	First Web Page Expect Time (Seconds)			Second Web Page Expect Time (Seconds)		
				100 MHz	200 MHz	600 MHz	100 MHz	200 MHz	600 MHz
2	TPA	152	26,515	19 <= 22	10 <= 15	9 <= 15	18 <= 22	11 <= 15	10 <= 15
3	Permits	1,026	376,468	18 <= 22	11 <= 15	10 <= 15	19 <= 22	11 <= 15	10 <= 15
4	CHG Contract	1,764	778,481	20 <=22	11 <= 15	10 <= 15	20 <= 22	12 <= 15	11 <= 15
5	SRIDs	6,745	1,792,624	21 <= 25	14 <= 20	14 <= 20	23 <= 25	15 <= 20	14 <= 20

Information on the data cells for first and second web pages seconds (NN <= NN Format)

- First NN, actual number of seconds for Module, Web Page Type (First, Second), and System (100, 200, 600 MHz)
- Second NN, Number of seconds that the test step needs to pass. Used this value for passing or failing the test step

Information on systems used for the baseline test

- 100 MHz, 100 MHz Pentium with 32 MB of RAM running Windows 98

- 200 MHz, 200 MHz Pentium with 128 MB of RAM running Windows NT 4.0 (Probably a 200 MHz Pentium system needs at least 64 MB of RAM to get in this range of times)
- 600 MHz, 600 MHz Pentium II with 128 MB of RAM running Windows 98

The "ORP Requirements Test" project needs be refreshed from the production "ORP Requirements" project every once in a while. The numbers in the above table will need to be changed to reflect the size and complexity of the project when a refresh of data occurs for the "ORP Requirements Test" project.

This test verifies the listed requirements in the following manner:

- **91** - Checks the performance for data access by accessing the first and second web pages of a set of modules and then it tests the refresh capabilities by paging down within a web page.

Requirements to be verified

No.	Requirement Description
91	The software shall provide a maximum screen refresh time of 1/2 second for a standard Hanford workstation.

Testing Set-up

- User is required to be logged on to the Hanford Local Area Network (HLAN)
- The speed and RAM of the workstation needs to be known so that the correct times can be looked up in the table
- Internet Explorer 4.0 or greater must be installed on testing workstation
- The "ORP Requirements Test" project exists on the DOORS database server
- "LMSI Test Read" is a user on the "ORP Requirements Test" project
- 30 DOORS objects are displayed per DOORSNet web page

Test Information

Workstation Information

• ID:	[WC64389 (aj)]	[WC63606 (sm)]
• Pentium Speed:	[200 Mhz (aj)]	[200 Mhz (sm)]
• RAM:	[64.0 Mb (aj)]	[32.0 Mb (sm)]

Test Case

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	**Test Case Setup**				
1.1	Bring up Internet Explorer 3. Double-click on the Internet Explorer Icon on the Windows desktop 4. Maximize Internet Explorer • **Enter version number in Comments column of this test script** (version is shown on title bar of Internet Explorer, e. g. "Hanford Intranet - Microsoft Internet Explorer ***5.01*** Hanford ESDS [990712]")	Corresponding results are: 3. A normal size window of Internet Explorer is the top window on the desktop 4. Internet Explorer fills the free area of the desktop	✓		All Testers entered Internet Explorer Version 5.01
	If the tester does not have "DOORSNet Test Access page" bookmark for the *DOORSNet Logon web page*, do steps 1.2 though 1.4, else go to step 1.5				
1.2	Access the DOORSNet access page 2. Enter the following URL in the Address field of Internet Explorer: http://apdoorswprd/doorsnet	Corresponding results are: 2. The DOORSNet access page will open displaying "Welcome to DOORSNet" near the top of the page.	✓		
1.3	Enter in your name and email address 2. *Enter your name and email address in* the appropriate fields and select OK. Example: Name: Adria Johnson *Email address:* adria_l_johnson@rl.gov	Corresponding results are: 2. *DOORSNet Access Page for* the user will be displayed. User name will be included in the title near the top of the page. *Example:* DOORSNet Access Page for Adria Johnson	✓		
1.4	Bookmark page 4. From the menu bar, click on "Favorites", then "Add to	Corresponding results are: 4. "Add Favorite" dialog window comes up.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	Favorites..." menu item 5. Change "DOORSNet Access Page" to "DOORSNet Test Access Page" in Name field. 6. Press the OK button	5. Name field has "DOORSNet Test Access Page" as its value. 6. The "Add Favorite" dialog window disappears.			
	Go to step 1.6				
	The tester has the "DOORSNet Test Access page" bookmark				
1.5	Select the "DOORSNet Test Access page" bookmark 2. From the menu bar, click on "Favorites", then "DOORSNet Test Access Page" menu item	Corresponding results are: 2. DOORSNet Access Page for the user will be displayed. User name will be included in the title near the top of the page. Example: DOORSNet Access Page for Adria Johnson	✓		
1.6	Logon to the "ORP Requirements Test" project 4. Make sure that the "ORP Requirements Test" project is selected from the list of projects 5. Enter in "LMSI Test Read" in the username field 6. Enter the password in the password field. (Ask the test lead if you do not know the password) 7. Click on the OK button	Corresponding results are: 4. The radio button for the Car project is selected. 5. LMSI Test Read is the value in the username field. 6. Multiple * are in the password field to hide the password entered by the user. 7. The web page is replaced with the "DOORSNet View selection" web page.	✓		Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review Manager to run the change proposal setup tool again."
1.7	Setup the "DOORSNet: View selection" web page for this test case. 5. Make sure that the "Table format" web page format is selected. 6. Make sure that the "Show pictures"	Corresponding results are: 5. The radio button for "Table format" is selected. 6. The check box for "Show pictures" is checked.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	check item is selected.				
2	**Test steps with the "TPA" module of the "ORP Requirements Test" project**				
2.1	Open the "TPA" module with the "Standard view" view and **record the number of seconds it takes to open** in the Comments column. 1. Select the "...Standard view" list item just under the "TPA" list item. 2. Click on the OK button	Corresponding results are: 1. The "...Standard view" list item just under the "TPA" list item is highlighted. 2. The web page is replaced with the "DOORSNet: View content" web page showing the first page of the Table format for the "Standard view" view of the "TPA" module. Check the table in the introduction to determine if the test step is successful. (M-TPA, P-1st Page, System Speed)	✓		8 seconds (aj) 12 seconds (sm) Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review Manager to run the change proposal setup tool again."
2.2	Page down within the web page and **keep track if it takes more than 1/2 seconds to page down.** 1. Press the Page Down key on the keyboard.	Corresponding results are: 1. Web browser shows the next part of the web page. Should take less than a 1/2 second to page down.	✓		
2.3	Go to the second page and **record the number of seconds it takes to go** in the Comments column. 2. Click on the single right white arrow on the right side of the dark web bar that has the module and view name on it.	Corresponding results are: 2. The first web page is replaced by the second web page Check the table in the introduction to determine if the test step is successful. (M-TPA, P-2nd Page, System Speed)	✓		12 seconds (aj) 11 seconds (sm) Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review

Step Num	Instruction	Expected Result	Pass	Fail	Comments
					Manager to run the change proposal setup tool again."
2.4	Go to Views to select another module 1. Click on the text portion of the "Views" bullet that is at the top left corner of the dark DOORSNet web bar.	Corresponding results are: 2. The web page is replaced with the "DOORSNet View selection" web page.	✓		Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review Manager to run the change proposal setup tool again."
3	**Test steps with the "Permits" module of the "ORP Requirements Test" project**				
3.1	Open the "Permits" module with the "Standard view" view and **record the number of seconds it takes to open** in the Comments column. 3. Select the "...Standard view" list item just under the "Permits" list item. 4. Click on the OK button	Corresponding results are: 3. The "...Standard view" list item just under the "Permits" list item is highlighted. 4. The web page is replaced with the "DOORSNet: View content" web page showing the first page of the Table format for the "Standard view" view of the "Permits" module. Check the table in the introduction to determine if the test step is successful. (M-Permits, P-1st Page, System Speed)	✓		10 seconds (aj) 17 seconds (sm) Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review Manager to run the change proposal setup tool again."
3.2	Page down within the web page and **keep track if it takes more than 1/2 seconds to page down.**	Corresponding results are: 2. Web browser shows the next part of the web page.	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	2. Press the Page Down key on the keyboard.	Should take less than a 1/2 second to page down.			
3.3	Go to the second page and **record the number of seconds it takes to go** in the Comments column. 3. Click on the single right white arrow on the right side of the dark web bar that has the module and view name on it.	Corresponding results are: 3. The first web page is replaced by the second web page Check the table in the introduction to determine if the test step is successful. (M-Permits, P-2nd Page, System Speed)	✓		11 seconds (aj) 12 seconds (sm) Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review Manager to run the change proposal setup tool again."
3.4	Go to Views to select another module 2. Click on the text portion of the "Views" bullet that is at the top left corner of the dark DOORSNet web bar.	Corresponding results are: 3. The web page is replaced with the "DOORSNet View selection" web page.	✓		Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review Manager to run the change proposal setup tool again."
4	**Test steps with the "CHG Contract" module of the "ORP Requirements Test" project**				
4.1	Open the "CHG Contract" module with the "Standard view" view and **record the number of seconds it takes to open** in the	Corresponding results are: 5. The "...Standard view" list item just under the "CHG Contract"	✓		12 seconds (aj) 13 seconds (sm)

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	Comments column. 5. Select the "...Standard view" list item just under the "CHG Contract" list item. 6. Click on the OK button	list item is highlighted. 6. The web page is replaced with the "DOORSNet: View content" web page showing the first page of the Table format for the "Standard view" view of the "CHG Contract" module. Check the table in the introduction to determine if the test step is successful. (M-CHG Contract, P-1st Page, System Speed)			Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review Manager to run the change proposal setup tool again."
4.2	Page down within the web page and **keep track if it takes more than 1/2 seconds to page down.** 3. Press the Page Down key on the keyboard.	Corresponding results are: 3. Web browser shows the next part of the web page. Should take less than a 1/2 second to page down.	✓		
4.3	Go to the second page and **record the number of seconds it takes to go** in the Comments column. 4. Click on the single right white arrow on the right side of the dark web bar that has the module and view name on it.	Corresponding results are: 4. The first web page is replaced by the second web page Check the table in the introduction to determine if the test step is successful. (M-CHG Contract, P-2nd Page, System Speed)	✓		11 seconds (aj) 11 seconds (sm) Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review Manager to run the change proposal setup tool again."
4.4	Go to Views to select another module 3. Click on the text portion of the "Views" bullet that is at the top left	Corresponding results are: 4. The web page is replaced with the "DOORSNet View selection"	✓		

Step Num	Instruction	Expected Result	Pass	Fail	Comments
	corner of the dark DOORSNet web bar.	web page.			
5	**Test steps with the "SRIDs" module of the "ORP Requirements Test" project**				
5.1	Open the "SRIDs" module with the "Standard view" view and **record the number of seconds it takes to open** in the Comments column. 7. Select the "...Standard view" list item just under the "SRIDs" list item. 8. Click on the OK button	Corresponding results are: 7. The "...Standard view" list item just under the "SRIDs" list item is highlighted. 8. The web page is replaced with the "DOORSNet: View content" web page showing the first page of the Table format for the "Standard view" view of the "SRIDs" module. Check the table in the introduction to determine if the test step is successful. (M-SRIDs, P-1st Page, System Speed)	✓		13 seconds (aj) 14 seconds (sm) Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please ask your Review Manager to run the change proposal setup tool again."
5.2	Page down within the web page and **keep track if it takes more than 1/2 seconds to page down.** 4. Press the Page Down key on the keyboard.	Corresponding results are: 4. Web browser shows the next part of the web page. Should take less than a 1/2 second to page down.	✓		
5.3	Go to the second page and **record the number of seconds it takes to go** in the Comments column. 5. Click on the single right white arrow on the right side of the dark web bar that has the module and view name on it.	Corresponding results are: 5. The first web page is replaced by the second web page Check the table in the introduction to determine if the test step is successful. (M-SRIDs, P-2nd Page, System Speed)	✓		13 seconds (aj) 14 seconds (sm) Microsoft Internet Notify Window displayed message "The current user does not have a preferences section in this project. Please

Step Num	Instruction	Expected Result	Pass	Fail	Comments
					ask your Review Manager to run the change proposal setup tool again."
5.4	Go to Views to select another module 4. Click on the text portion of the "Views" bullet that is at the top left corner of the dark DOORSNet web bar.	Corresponding results are: 5. The web page is replaced with the "DOORSNet View selection" web page.	✓		
6	Close project 1. Click on the text portion of the "Close project" bullet that is near the center and top of the dark DOORSNet web bar.	Corresponding results are: 1. The "DOORSNet View selection" web page is replaced by the "DOORSNet: Access page" web page.	✓		
7	Exit web browser	Web browser disappears	✓		

Tested by: < Original working copies of test cases signed by testers >

Print and Sign Name

<April 12, 2000>

Date

RPP-6251 REV. 0

8.11 Test Case Number: DOORS-6.05

Test Case Title: DOORS PC Manual Multiple Users Performance Test

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Introduction

The purpose of this test, DOORS PC Manual Multiple Users Performance Test, is to check performance of the DOORS database when multiple DOORS PC Windows clients are accessing the database at the same time. The design of the DOORS PC client software has the application caching all the data for a module when the module is opened. Each DOORS PC client opens a connection to the licensing server and keeps it open until all the DOORS PC applications on the workstation closes.

Under the current configuration, up to 20 DOORS PC users are allowed to have connections to the licensing server at the same time. If 20 DOORS PC users were connected, only two or three users would actually be accessing the database at the same time. Therefore to test multiple DOORS PC users accessing the database, having two users accessing the database at the same time would be an appropriate test.

For this test case, 2 instances of the test case, DOORS-6.03: DOORS PC Manual Single User Performance Test, will be used in parallel.

The table below is from the DOORS-6.03 test case and should always be the same as what is in the DOORS-6.03 test case document.

Information on modules used for this test case

Test Step	Module	# of Objects	# of Chars	Expected Loading Time (Seconds)
2	TPA	152	26,515	<= 10
3	Permits	1,026	376,468	<= 15
4	CHG Contract	1,764	778,481	<= 15
5	SRIDs	6,745	1,792,624	<= 30

This test case will require 2 testers. Both testers will

- Each user and fill out a DOORS-6.03 test case document for their portion of this test case.
- Perform test step 1 from the DOORS-6.03 test case.
- Perform the following test steps from the DOORS-6.03 test case in parallel including the sub-steps within the test steps:

	Tester 1	Tester 2	Max Loading Time (Seconds)

2,3 Parallel Test Step	Test Step 2: "TPA" Module	Test Step 3: "Permits" Module	<= 25
4,5 Parallel Test Step	Test Step 4: "CHG Contract" Module	Test Step 5: "SRIDs" Module	<= 45

- Perform test step 6 from the DOORS-6.03 test case.

The Max Loading Time column was calculated as the sum of the two individual test steps involved. The system should be able to respond at least that fast.

The "ORP Requirements Test" project needs be refreshed from the production "ORP Requirements" project every once in a while. The numbers in the above table will need to be changed to reflect the size and complexity of the project when a refresh of data occurs for the "ORP Requirements Test" project.

This test verifies the listed requirements in the following manner:

- **123** - Since connecting to the licensing server counts at a concurrent user, this test case tests the performance of two DOORS PC users accessing the DOORS database at the same time and consider this test as an appropriate test for 20 concurrent users.

Requirements to be verified

No.	Requirement Description
123	The tool must support up to 20 concurrent users.

Testing Set-up

- The two users are required to be logged on to the Hanford Local Area Network (HLAN)
- The workstations needs to be less or equal to 300 MHz Pentium and less or equal to 64 MB of RAM
- DOORS 4.1.4 SR2 (production) must be installed on the testing workstations
- The "ORP Requirements Test" project exists on the DOORS database server
- "LMSI Test Read" is a user on the "ORP Requirements Test" project

Test Information

Workstation 1 Information

- ID: [PX18148 (aj)]
- Pentium Speed: [650 Mhz (aj)]
- RAM: [128 Mb (aj)]
- Tester: [Adria Johnson]

Workstation 2 Information

- ID: [WC62022 (sm)]
- Pentium Speed: [200 Mhz (sm)]
- RAM: [64.0 Mb (sm)]
- Tester: [Steve McConnell]
-

Test Case

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	Both testers perform all of test step 1 from DOORS-6.03 test case	Both testers ready for the parallel part of this test case	✓		
2	With both testers in synch with each other in the test sub-steps of the DOORS-6.03 test case test steps. • Tester 1 performs test step 2 from the DOORS-6.03 test case • Tester 2 performs test step 3 from the DOORS-6.03 test case	• Both testers have load times in seconds from their respective modules. • If the Max time is <= 25 seconds, then this test step passes.	✓		Load Time 2: 4 sec. Load Time 3: 8 sec. Max: 8 sec.
3	With both testers in synch with each other in the test sub-steps of the DOORS-6.03 test case test steps. • Tester 1 performs test step 4 from the DOORS-6.03 test case • Tester 2 performs test step 5 from the DOORS-6.03 test case	• Both testers have load times in seconds from their respective modules. • If the Max time is <= 45 seconds, then this test step passes.	✓		Load Time 4: 8 sec. Load Time 5: 6 sec. Max: 8 sec.

Step Num	Instruction	Expected Result	Pass	Fail	Comments
4	Both testers perform test step 6 from DOORS-6.03 test case	Both testers have exit from DOORS PC	✓		

Attach the DOORS-6.03 test case documents filled out and signed by the 2 testers.

Tested by: < Original working copy test cases signed by testers > <April 12, 2000>

Print and Sign Name Date

8.12 Test Case Number: DOORS-6.06

Test Case Title: DOORSNet Manual Multiple Users Performance Test

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Introduction

The purpose of this test, DOORSNet Manual Multiple Users Performance Test, is to check performance of the DOORS database when multiple browsers are accessing the database through DOORSNet at the same time. The design of DOORSNet allows a web user to count as a concurrent user up to an hour after no activity against the DOORSNet server.

A typical user will spend most of their time going from page to page looking for items of interest. Once found, the user may stay on the web page for many minutes still counting as a concurrent user. Due to the web user going from web page to web page, it is felt that the number of users needed for the DOORSNet Manual Multiple Users Performance Test is higher than the 2 users needed for the DOORS-6.05 DOORS PC Manual Multiple Users Performance Test. Since the DOORS-6.04 DOORSNet Manual Single User Performance Test accesses 4 different modules the same way, using the individual modules from the DOORS-6.04 test case in a parallel test case would be representative of a 20 concurrent user load through DOORSNet.

For this test case, 4 instances of the test case, DOORS-6.04: DOORSNet Manual Single User Performance Test, will be used in parallel.

The table below is from the DOORS-6.04 test case and should always be the same as what is in the DOORS-6.04 test case document.

Information on modules used for this test case

Test Step	Module	# of Objects	# of Chars	First Web Page Expect Time (Seconds)			Second Web Page Expect Time (Seconds)		
				100 MHz	200 MHz	600 MHz	100 MHz	200 MHz	600 MHz
2	TPA	152	26,515	19 <= 22	10 <= 15	9 <= 15	18 <= 22	11 <= 15	10 <= 15
3	Permits	1,026	376,468	18 <= 22	11 <= 15	10 <= 15	19 <= 22	11 <= 15	10 <= 15
4	CHG Contract	1,764	778,481	20 <=22	11 <= 15	10 <= 15	20 <= 22	12 <= 15	11 <= 15
5	SRIDs	6,745	1,792,624	21 <= 25	14 <= 20	14 <= 20	23 <= 25	15 <= 20	14 <= 20

Information on the data cells for first and second web pages seconds (NN <= NN Format)

- First NN, actual number of seconds for Module, Web Page Type (First, Second), and System (100, 200, 600 MHz)
- Second NN, Number of seconds that the test step needs to pass. Used this value for passing or failing the test step

Information on systems used for the baseline test

- 100 MHz, 100 MHz Pentium with 32 MB of RAM running Windows 98
- 200 MHz, 200 MHz Pentium with 128 MB of RAM running Windows NT 4.0 (Probably a 200 MHz Pentium system needs at least 64 MB of RAM to get in this range of times)
- 600 MHz, 600 MHz Pentium II with 128 MB of RAM running Windows 98

This test case will require 4 testers. All testers will

- Each use and fill out a DOORS-6.04 test case document for their portion of this test case.
- Perform test step 1 from the DOORS-6.04 test case.
- Perform the following test steps from the DOORS-6.04 test case in parallel including the sub-steps within the test steps:

			Expect Time (Seconds)		
Tester	**Test Step**	**Sub-step**	**100 MHz**	**200 MHz**	**600MHz**
1	2 - "TPA" Module	.1 - 1st Page	22	15	15
		.3 - 2nd Page	22	15	15
2	3 - "Permits" Module	.1 - 1st Page	22	15	15
		.3 - 2nd Page	22	15	15
3	4 - "CHG Contract" Module	.1 - 1st Page	22	15	15
		.3 - 2nd Page	22	15	15
4	5 - "SRIDs" Module	.1 - 1st Page	25	20	20
		.3 - 2nd Page	25	20	20
	Max:	**1st Page Max**	**91**	**65**	**65**
		2nd Page Max	**91**	**65**	**65**

- Perform test step 6 from the DOORS-6.04 test case.

The Max Loading Time column was calculated for the first and second web pages as the sum of the 4 individual test steps involved. The system should be able to respond at least that fast.

The "ORP Requirements Test" project needs be refreshed from the production "ORP Requirements" project every once in a while. The numbers in the above table will need to be changed to reflect the size and complexity of the project when a refresh of data occurs for the "ORP Requirements Test" project.

This test verifies the listed requirements in the following manner:

- **123** - Since connecting to the licensing server counts at a concurrent user, this test case tests the performance of 4 DOORSNet users accessing the DOORS database through a web browser at the same time and consider this test as an appropriate test for 20 concurrent users of DOORSNet.

Requirements to be verified

No.	Requirement Description
123	The tool must support up to 20 concurrent users.

Testing Set-up

- The 4 users are required to be logged on to the Hanford Local Area Network (HLAN)
- The speed and RAM of the workstations needs to be known so that the correct times can be looked up in the table. (They should be all 100 MHz with 32 MB of RAM or all 200 MHz and above with at least 64 MB of RAM)
- Internet Explorer 4.0 or greater must be installed on testing workstations
- The "ORP Requirements Test" project exists on the DOORS database server
- "LMSI Test Read" is a user on the "ORP Requirements Test" project
- 30 DOORS objects are displayed per DOORSNet web page

Test Information

Workstation Information

- ID: [WC64389 (aj)]
- Pentium Speed: [200 Mhz (aj)]
- RAM: [64.0 Mb (aj)]
- Tester: [Adria Johnson]

Workstation 2 Information

- ID: [WC63606 (sm)]
- Pentium Speed: [200 Mhz (sm)]

- RAM: [32.0 Mb (sm)]
- Tester: [Steve McConnell]

Workstation 3 Information

- ID: [PX18148 (jc)]
- Pentium Speed: [650 Mhz (jc)]
- RAM: [128 Mb (jc)]
- Tester: [Joyce Caldwell]

Workstation 4 Information

- ID: [WC62022 (rs)]
- Pentium Speed: [200 Mhz (rs)]
- RAM: [64.0 Mb (rs)]
- Tester: [Rick Strickland]

Test Case

Step Num	Instruction	Expected Result	Pass	Fail	Comments
1	All testers perform all of test step 1 from DOORS-6.04 test case	All testers ready for the parallel part of this test case	✓		
2	With all testers in synch with each other, the testers will perform the .1 sub-step, which opens each module to the first web page • Tester 1 performs test step 2.1 from the DOORS-6.04 test case • Tester 2 performs test step 3.1 from the DOORS-6.04 test case • Tester 3 performs test step 4.1 from the DOORS-6.04 test case • Tester 4 performs test step 5.1 from the DOORS-6.04 test case	• All testers have load times for the first web page in seconds from their respective modules. • If the Max time is <= to the Max seconds in the table for speed and RAM for the first web page, then this test step passes.		✓	Test A Tester 1 Time: 22 sec. Tester 2 Time: 32 sec. Tester 3 Time: 12 sec. Tester 4 Time: error Max: 32 sec. Test B Tester 1 Time: error Tester 2 Time: error Tester 3 Time: 13 sec. Tester 4 Time: 27 sec.

Step Num	Instruction	Expected Result	Pass	Fail	Comments
					Max: 27 sec. Error = "DOORSNet has reported the following error. Could not connect to the DOORSNet Server. The server may not be running, or it may be servicing other requests at the moment, in which case you should try again in a short while."
3	With all testers in synch with each other, the testers will perform the .3 sub-step, which has each module going to the second web page • Tester 1 performs test step 2.3 from the DOORS-6.04 test case • Tester 2 performs test step 3.3 from the DOORS-6.04 test case • Tester 3 performs test step 4.3 from the DOORS-6.04 test case • Tester 4 performs test step 5.3 from the DOORS-6.04 test case	• All testers have times for the second web page in seconds from their respective modules. • If the Max time is <= to the Max seconds in the table for speed and RAM for the second web page, then this test step passes.		✓	Test C Tester 1 Time: 35 sec. Tester 2 Time: error Tester 3 Time: 11 sec. Tester 4 Time: 25 sec. Max: 35 sec. Test D Tester 1 Time: error Tester 2 Time: 38 sec. Tester 3 Time: 11 sec. Tester 4 Time: 25 sec. Max: 38 sec. Error = "DOORSNet has reported the following error. Could not connect to the DOORSNet Server.

Step Num	Instruction	Expected Result	Pass	Fail	Comments
					The server may not be running, or it may be servicing other requests at the moment, in which case you should try again in a short while."
4	All testers perform test step 6 from DOORS-6.04 test case	All testers have exit from their web browsers	✓		

Attach the DOORS-6.04 test case documents filled out and signed by the corresponding tester.

Tested by: < Original working copy test cases signed by testers > <April 12, 2000>

Print and Sign Name Date

Addendum 1 – Copyright Notice

The following products are mentioned in this test plan:

- DOORS is a trademark of QSS, Limited, Mt. Arlington, New Jersey
- DOORSNet is the trademark of QSS, Limited, Mt. Arlington, New Jersey
- Excel is a trademark of Microsoft Corporation, Redmond, Washington.
- Internet Explorer is a trademark of Microsoft Corporation, Redmond, Washington.
- Outlook is a trademark of Microsoft Corporation, Redmond, Washington.
- Windows is a trademark of Microsoft Corporation, Redmond, Washington.
- Word is a trademark of Microsoft Corporation, Redmond, Washington.