

Test Readiness Review

Purpose

The Test Readiness Review process described below is an extract of the overall Software Quality Assurance process outlined within the SQA Plan (SQAP), paragraph 5.3.4. The purpose of the Test Readiness Review is to provide management with the assurance that the software has undergone a thorough test process and is ready for turnover to the next test phase. The scope of the Test Readiness Review is to inspect the test products and test results from the completed test phase for completeness and accuracy, and to verify that the test cases, test scenarios, test scripts, environment, and test data have been prepared for the next test phase.

Each of the test teams contributing to an application release will hold Test Readiness Reviews for their application. All test teams contributing to an application release will hold Test Readiness Reviews with the Enterprise Test Organization at the time that the application is ready for integration into the DCII.

Informal Reviews

Informal reviews may or may not include a formal meeting, but are subject to the same reporting requirements as described below for formal reviews. An SQA process review of the TRR is recommended.

Formal Reviews

Formal Test Readiness Reviews will be held for each application of a release at the completion of the Software Integration Test, and at the completion of the Functional Validation Test. An Implementation Readiness Review will be held by the Enterprise Test Organization at the completion of the Enterprise Acceptance Test and Operational Assessment.

Levels of Test Readiness Reviews

There are three (3) levels of Test Readiness Reviews at the application level as defined below:

- 1) Development Test Readiness Review – informal test readiness review conducted following successful completion of unit / module testing of a given application.
- 2) Project Test Readiness Review – formal test readiness review conducted following successful completion of the Software Integration Test (SIT) of a given application.
- 3) Enterprise Test Readiness Review – formal test readiness review conducted following successful completion of the Functional Validation Test (FVT) of a given application.

There is one level of Test Readiness Review conducted at the Enterprise level, and an Implementation Readiness Review following Enterprise testing as defined below:

- 1) Acceptance Test Readiness Review – formal test readiness review conducted following successful completion of the Enterprise Integration Test and Performance Test of each DCII release.
- 2) Implementation Readiness Review – formal review conducted following successful completion of the Enterprise Acceptance Test and portions, if not all of the Operational Assessment at the Enterprise level for a given DCII release.

Test Readiness Review Participants

Key participants for each of the Test Readiness Reviews are defined below:

- 1) Development Test Readiness Review
 - a) DCII Test Director
 - b) Technical Project Officer
 - c) Application Test Manager
 - d) Project SQA Representatives

- 2) Project Test Readiness Review
 - a) DCII Test Director
 - b) Technical Project Officer
 - c) Functional Project Officer
 - d) Application Test Director
 - e) Application Test Manager
 - f) Enterprise Test Director
 - g) Test Integrator
 - h) Certifying Subject Matter Experts
 - i) Project SQA Specialists

- 3) Enterprise Test Readiness Review and Acceptance Test Readiness Review
 - a) Program Manager
 - b) DCII Test Director
 - c) Technical Project Officer
 - d) Functional Project Officer
 - e) Application Test Director
 - f) Enterprise Test Director
 - g) Test Integrator
 - h) Certifying Subject Matter Experts
 - i) Operational Assessment Test Manager
 - j) Project SQA Specialists

- 4) Implementation Readiness Review
 - a) Program Manager
 - b) DCII Test Director
 - c) Enterprise Test Director
 - d) Test Integrator
 - e) Certifying Subject Matter Experts
 - f) Operational Assessment Test Manager
 - g) Project SQA Specialists

Certifying Subject Matter Experts

There are several categories of certifying Subject Matter Experts relating to the DCII. They are as described below:

- 1) FFMR Certifying Subject Matter Experts:

Certifying Subject Matter Experts (SMEs) comprise of representatives from the Accounting Firm(s) of KPMG and Arthur Andersen that have been contracted to verify compliance of the Federal Financial Management Requirements that prescribes the policies and standards for federal agencies to follow in developing, operating, evaluating, and reporting on financial management systems.

2) DII COE Certifying Subject Matter Experts:

The Defense Information Infrastructure (DII) Common Operating Environment (COE) certifying Subject Matter Experts (SMEs) comprise of representatives that have been empowered to test, validate, and certify that the DCII is compliant with the DII Common Operating Environment Integration and Runtime Specification, DII Common Operating Environment Software Quality Compliance Plan, DoD Joint Technical Architecture, DoD Technical Architecture Framework for Information Management, and User Interface Specification for the Defense Information Infrastructure.

3) Security Certifying Subject Matter Experts:

Security Certifying Subject Matter Experts comprise of representatives appointed to ensure compliance of the Minimum Security Requirements List (MSRL) of the DCII.

Roles and Responsibilities

One of the keys to an effective formal review is in assigning and maintaining roles for each participant. At a minimum each formal review must be attended by a review coordinator, presenter, meeting recorder, SQA specialist, and reviewers.

Review Coordinator

The review coordinator is a key player in all reviews and conducts all review meetings. The review coordinator is not the author of the product being reviewed, but should have the knowledge and competence to participate fully as a reviewer. The major functions of the review coordinator are to:

- 1) Be responsible for all up front preparation.
- 2) Verify that the reviewers are properly prepared by determining if each reviewer is familiar with the review products. The review is to be re-scheduled if the reviewers are not fully prepared.
- 3) Notify all review participants of the review date, time, and location.
- 4) Start the meeting on time.
- 5) Keep reviewers focused on the test product being reviewed. The review coordinator keeps the reviewers focused on finding deficiencies, not necessarily fixing them.
- 6) Act as a reviewer and participate in the group discussion.
- 7) Ensure the checklist(s), Action Item Notices, and the summary reports are completed. The review coordinator will work with the SQA group to perform follow-up on all deficiencies.

Presenter

The review is of the test products and test results, not the presenter. The major functions of the presenter are to:

- 1) Provide an overview of the product being reviewed.
- 2) Be present at the review for clarification.
- 3) Make corrections to the test product as necessary after the review.

Meeting Recorder

The recorder will log all deficiencies on the Review Checklist and Action Item Notice sheets. The meeting recorder may also be a reviewer and may contribute to the group discussion. The meeting recorder will be responsible for distributing the summary report to all review participants.

SQA Specialists

The SQA specialist will review the test products and activities to ensure compliance with the SQA plan and identified standards. The SQA specialist will track action items found during the Test Readiness Review to closure, and the results are added to the SQA metrics repository. The SQA specialist will make regular reports to the DCII SQA staff specialist, Program Manager, and DCII Test Director as per the procedures outlined in paragraph 7.1.2 of the SQAP.

Reviewers

Reviewers represent those responsible for the level of software or system testing applicable for the review. Reviewers will devote sufficient time in preparation. This includes reviewing the test products from the test phase, certifications, test results, and test reports. All reviewers are expected to participate in the group discussion. The purpose of the review is to review the test products and ensure that the software is ready for turnover.

Test Readiness Review Entry Criteria

The following process defines the entrance criteria before the review:

- 1) **Development Test Readiness Review**
 - a) The Technical Project Officer will be the Review Coordinator for the Development Test Readiness Review. The Application Test Manager will be assigned the responsibility of the Review Presenter. The Technical Project Officer will appoint a Meeting Recorder for the purpose of tracking the Review Checklist and Action Item Notice and distributing to the reviewers.
 - b) The Review Presenter will ensure that the following items have been prepared / completed prior to the review:
 1. Completed unit test checklist (S-SE-009), unit / module test cases, and unit / module test data has been placed under configuration management control.
 2. Unit / module test report has been prepared and distributed to the review participants.
 3. Test cases, test scenarios, and test scripts have been documented for the application Software Integration Test (SIT) and are ready for use.
 4. Test data has been obtained or prepared for the application Software Integration Test (SIT).
 5. Test environment has been configured, pre-populated with static table data, and test user accounts established for the Software Integration Test (SIT).
 6. Requirements Traceability Matrix has been updated to include requirement identification, requirement description, associated test case, test scenario, test script(s), test data file, and crosswalk to FFMR identification for the Software Integration Test (SIT).
- 2) **Project Test Readiness Review**
 - a) The Technical Project Officer will be the Review Coordinator for the Project Test Readiness Review. The Application Test Manager will be assigned the responsibility of the Review Presenter. The Technical Project Officer will appoint a

Meeting Recorder for the purpose of tracking the Review Checklist and Action Item Notice and distributing to the reviewers.

- b) The Review Presenter will ensure that the following items have been prepared / completed prior to the review:
 - 1. Software Test Plan, Software Integration Test cases, test scenarios, test scripts, automated test scripts, and test data has been placed under configuration management control.
 - 2. Software Integration Test report has been prepared and distributed to the review participants.
 - 3. Appropriate sections of the DCII Specification (Appendix D) requirements have been validated and certified by the Technical Project Officer.
 - 4. Test Discrepancy Reports (TDRs) from the Software Integration Test have been closed.
- c) The Application Test Director or Functional Project Officer will ensure that the following items have been prepared / completed prior to the review:
 - 1. Test cases, test scenarios, and test scripts have been documented for the application Functional Validation Test (FVT) and are ready for use.
 - 2. Test data has been obtained or prepared for the application Functional Validation Test (FVT).
 - 3. Test environment has been configured, pre-populated with static table data, test user accounts established, and test tools installed for the Functional Validation Test (FVT).
 - 4. Requirements Traceability Matrix has been updated to include requirement identification, requirement description, associated test case, test scenario, test script(s), test data file, and crosswalk to FFMR identification for the Functional Validation Test (FVT).
 - 5. Technical Action Manager and Employee accounts have been established for the test level and test event for Functional Validation Testing within CMIS.

3) Enterprise Test Readiness Review

- a) The Functional Project Officer will be the Review Coordinator for the Project Test Readiness Review. The Application Test Director or application Functional Project Officer will be assigned the responsibility of the Review Presenter. The Functional Project Officer will appoint a Meeting Recorder for the purpose of tracking the Review Checklist and Action Item Notice and distributing to the reviewers.
- b) The Review Presenter will ensure that the following items have been prepared / completed prior to the review:
 - 1. Software Test Plan, Functional Validation Test cases, test scenarios, test scripts, automated test scripts, and test data has been placed under configuration management control.

2. Functional Validation Test report has been prepared and distributed to the review participants.
 3. Appropriate sections of the DCII Specification (Appendix D) requirements have been validated and certified by the Functional Project Officer.
 4. Test Discrepancy Reports (TDRs) from the Functional Validation Test have been closed.
 5. Test participants / functional subject matter experts have recommended approval of the application software to the Program Manager.
 6. Appropriate data was collected and stored for FFMR compliance.
 7. Year 2000 certification complete and approved by the Program Manager.
- c) The Enterprise Test Director will ensure that the following items have been prepared / completed prior to the review:
1. Test cases, test scenarios, and test scripts have been documented for the Enterprise Integration and Performance test and are ready for use.
 2. Test cases, test scenarios, and test scripts / checklists have been documented for the Operational Assessment and are ready for use.
 3. Test Integrator has reviewed test products and certified compliance with test requirements and standards.
 4. Test data has been obtained or prepared for Enterprise testing.
 5. Enterprise test environment has been configured, pre-populated with static table data, load data, test users accounts established, and performance measurement and test tools installed.
 6. Requirements Traceability Matrix has been updated to include requirement identification, requirement description, associated test case, test scenario, test script(s), and test data.
 7. Technical Action Manager and Employee accounts have been established for the Enterprise test levels and test events within CMIS.

4) Acceptance Test Readiness Review

- a) The Enterprise Test Director will be the Review Coordinator for the Project Test Readiness Review. The Enterprise Test Director or Test Lead will be assigned the responsibility of the Review Presenter. The Enterprise Test Director will appoint a Meeting Recorder for the purpose of tracking the Review Checklist and Action Item Notice and distributing to the reviewers.
- b) The Review Presenter will ensure that the following items have been prepared / completed prior to the review:
 1. Appropriate sections of the DCII Specification (Appendix D) requirements have been validated and certified by the Enterprise Test Director.

2. Test Discrepancy Reports (TDRs) from the Enterprise Integration Test and Performance Test have been reviewed by the Technical and Functional Project Officers.
3. Appropriate data was collected and stored for FFMR compliance.
4. Certifications are complete and approved.
5. Test cases, test scenarios, and test scripts have been identified for the Enterprise Acceptance Test and are ready for use.
6. Test cases, test scenarios, and test scripts / checklists have been documented for the Operational Assessment with the end users, and are ready for use.
7. Test data and interface files has been obtained or prepared for Enterprise testing.
8. Enterprise test environment has been configured, pre-populated with static table data, load data, test end users accounts established.
9. Requirements Traceability Matrix has been updated to include requirement identification, requirement description, associated test case, test scenario, test script(s), and test data.

Review Planning and Preparation

The review coordinator is responsible for the scheduling of the review, preparation of the review test products, and may also perform the role of moderator in the actual review. The review coordinator's checklist has been included as part of this process. The review coordinator will:

- 1) Schedule the facilities for the review. Ensure the facility will accommodate the number of personnel to attend, proper equipment is available, etc.
- 2) Develop an agenda. The agenda will include a list of review participants and a schedule that will allow sufficient time to evaluate and discuss all review products, and identify and document discrepancies.
- 3) Notify all participants.
 - a) Inform review participants of time and location of the review.
 - b) Notify presenter of specific material to present and allotted time frame.
 - c) Advise meeting recorder and review participants of any other special assignment.
- 4) Prepare the Review Checklist.
- 5) Develop the Review package to include the following items:
 - a) Agenda
 - b) Review Checklist
 - c) Test Report
- 6) Distribute the review package to all participants at least three working days prior to the review.

All participants are expected to examine the review package prior to the review and be prepared to discuss the issues related to their area of responsibility.

Review Execution

The review coordinator verified that all participants are present and are prepared. Substitution of participants should be allowed only if the substitute has had an opportunity to prepare completely.

1. The Review Coordinator paraphrases the purpose and scope of the Review.

2. The Review Presenter addresses any outstanding action items and identified plans to complete them.
3. The Review Presenter paraphrases the test results of the completed test phase as outlined within the Test Report.
4. The Review Presenter provides documented certification form(s) and addresses results of certification test process.
5. The Review Presenter provides an extract of the Requirements Traceability Matrix relating to the requirements validated from the completed test phase.
6. Reviewers address any missing or incomplete requirements.
7. The Review Presenter provides recommendation for turnover of software components to next test phase.
8. Alternate presenters provides summarization of test readiness for next test phase.
9. Alternate presenters paraphrases software test plan.
10. The Review Coordinator completes the Review Checklist.
11. The Review Recorder notes all action items within the Action Item Notice.
12. The Review Coordinator summarizes action items and closes the meeting.
13. The Review Coordinator will prepare and provide to the Recorder to distribute the Review Summary Report to all participants.

Exit Criteria

The following items are produced from the Review:

- 1) Completed Review Checklist
- 2) Review Summary Report
- 3) Review Action Item Notice
- 4) SQA Reports

Review Follow-up

During the follow-up phase, the Review Coordinator and SQA specialist verify that all deficiencies have been addresses, and track all Action Item Notices to closure.

Coordinator Checklist

Prepared by:

Date:

- Type of Review:
- Development Test Readiness Review (dTRR)
 - Project Test Readiness Review (PTRR)
 - Enterprise Test Readiness Review (ETRR)
 - Acceptance Test Readiness Review (ATRR)
 - Implementation Readiness Review (IRR)

Planning the Review:

Y N N/A

- _____ 1. If conducting an TRR, has the test report to be reviewed been documented and distributed in the review notification?
- _____ 2. Have the review participants been identified?
- _____ 3. Have presenter(s) been assigned?
- _____ 4. Have meeting facilities been scheduled?
- _____ 5. Has a meeting agenda been prepared?
- _____ 6. Have all review participants been notified of the time and location of the review?
- _____ 7. Have review presenters / participants responsible for special assignments been notified?
- _____ 8. Has the review checklist been prepared?
- _____ 9. Has the review package been prepared and distributed?
- _____ 10. Have all documents, certification forms, test products been prepared and gathered for the review?

Conducting the Review:

Y N N/A

- _____ 1. Has the review checklist been completed?
- _____ 2. Has the Action Item Notice been completed where applicable?

Documenting the Review:

Y N N/A

- _____ 1. Has the review summary report been written to include:
 - a) System / project / release identification?

- b) Review participants?
 - c) List of test products reviewed?
 - d) Areas of noncompliance?
 - e) Deficiencies and recommendations / plan of action for correction?
- _____ 2. Has the summary report been distributed to:
- a) Review participants?
 - b) Management personnel?
 - c) SQA staff?
- _____ 3. Where applicable, have the deficiencies requiring managerial action been cleared stated with response time indicated?
- _____ 4. If applicable, has an Open Action Notice been completed?

Review Follow-up

Y N N/A

- _____ 1. Where applicable, have follow-up procedures been established with:
- a) Personnel assigned to action items?
 - b) Management?
 - c) SQA?

The Review Coordinator's responsibility is complete when:

_____ All action items are initialed as resolved

Development Test Readiness Review Checklist
For _____
 (Application)
Release _____

Review date:

Mark each question (Y) for Yes, (N) for No, or (N/A) for Non-applicable.

Completeness / Accuracy	Y-N-N/A	Comments
(1) Has the unit / module testing been completed?		
(2) Are all unit / module checklists been placed under CM?		
(3) Have unit / module test cases and test data files been placed under CM?		
(4) Has a unit / module test report been prepared?		
(5) Was a software demonstration test prepared (optional)?		
(6) Was the unit / module test report complete / accurate?		
(7) Are the software components ready for turnover?		
(8) Have all test cases been identified for SIT?		
(9) Have all test scenarios for SIT been documented?		
(10) Have all test scripts for SIT been prepared?		
(11) Has all test data been obtained / built for SIT?		
(12) Is the SIT environment ready for test?		
(13) Has test user accounts been established for SIT?		
(14) Are resources available to test?		
(15) Is the Technical Test Manager ready to accept the software components for SIT?		

Review Coordinator _____
 (Signature)

Technical Project Officer _____
 (Signature)

SQA Specialist _____
 (Signature)

Project Test Readiness Review Checklist
For _____
 (Application)
Release _____

Review date:

Mark each question (Y) for Yes, (N) for No, or (N/A) for Non-applicable.

Completeness / Accuracy	Y-N-N/A	Comments
(1) Is the Software Integration Test completed?		
(2) Have all Software Integration Test cases been placed under CM?		
(3) Have all Software Integration Test scenarios been placed under CM?		
(4) Have all Software Integration Test scripts been placed under CM?		
(5) Have all test data files been placed under CM?		
(6) Have all automated test scripts / scenarios been placed under CM?		
(7) Was the Software Integration Test report complete / accurate?		
(8) Have all applicable requirements been verified during SIT?		
(9) Is the requirements traceability matrix complete / accurate?		
(10) Is the applicable sections of the DCII Specification requirements (Appendix D) been certified complete?		
(11) Are the software components ready for turnover?		
(12) Have all test cases been identified for FVT?		
(13) Have all test scenarios for FVT been documented?		
(14) Have all test scripts for FVT been prepared?		
(15) Has all test data been obtained / built for FVT?		
(16) Is the FVT environment ready for test?		
(17) Has test user accounts been established for FVT?		
(18) Are resources available to test?		
(19) Are all applicable FFMRs been crosswalked within the requirements traceability matrix?		
(20) Has test cases been developed to validate FFMRs?		
(21) Has test products undergone review by the functional subject matter experts?		

(22) Is the DCD Test Director / application Test Manager ready to accept the software components for FVT?		
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Review Coordinator _____
(Signature)

Technical Project Officer _____
(Signature)

Functional Project Officer _____
(Signature)

SQA Specialist _____
(Signature)

Enterprise Test Readiness Review Checklist

For _____

(Application)

Release _____

Review date:

Mark each question (Y) for Yes, (N) for No, or (N/A) for Non-applicable.

Completeness / Accuracy	Y-N-N/A	Comments
(1) Is the Functional Validation Test completed?		
(2) Have all Functional Validation Test cases been placed under CM?		
(3) Have all Functional Validation Test scenarios been placed under CM?		
(4) Have all Functional Validation Test scripts been placed under CM?		
(5) Have all test data files been placed under CM?		
(6) Have all automated test scripts / scenarios been placed under CM?		
(7) Was the Functional Validation Test report complete / accurate?		
(8) Have all applicable requirements been verified during FVT?		
(9) Is the requirements traceability matrix complete / accurate?		
(10) Is the applicable sections of the DCII Specification requirements (Appendix D) been certified complete?		
(11) Has all data capture for FFMR validation been completed?		
(12) Are the software components ready for turnover?		
(13) Have the software configuration items been placed under CM?		
(14) Has the release package been provided to Release Management?		
(15) Have all test cases been identified for Enterprise integration and performance testing?		
(16) Have all test scenarios for Enterprise integration and performance testing been documented?		
(17) Have all test scripts (manual/automated) for Enterprise integration and performance testing been prepared?		
(18) Has all test data been obtained / built for Enterprise integration and performance testing?		
(19) Is the Enterprise DISA		

environment ready for test?		
(20) Is the web server for testing been configured and setup for test?		
(21) Has test user accounts been established for Enterprise testing?		
(22) Has virtual users been configured for Enterprise performance testing?		
(23) Has UNIX / Oracle accounts been established for Enterprise testing?		
(24) Are resources available to test?		
(25) Are all applicable FFMRs been crosswalked within the requirements traceability matrix?		
(26) Has test cases been developed to validate FFMRs at the Enterprise level?		
(27) Has the operational assessment criteria / test cases been established?		
(28) Has test cases for validation of the DCII Specification requirements been developed?		
(29) Has test products undergone review by the functional and technical subject matter experts?		
(30) Is the Enterprise Test Manager ready to accept the software application for Enterprise testing?		

Review Coordinator _____
(Signature)

Technical Project Officer _____
(Signature)

Functional Project Officer _____
(Signature)

Enterprise Test Director _____
(Signature)

SQA Specialist _____
(Signature)

**Enterprise Acceptance Test Readiness Review Checklist
For DCII**

Release _____

Review date:

Mark each question (Y) for Yes, (N) for No, or (N/A) for Non-applicable.

Completeness / Accuracy	Y-N-N/A	Comments
(1) Is the Enterprise Integration Test completed?		
(2) Is the Enterprise Performance Test completed?		
(3) Has DII COE certification been granted?		
(4) Have all FFMRs been validated and data collected for certification?		
(5) Has certification been granted for security?		
(6) Is the requirements traceability matrix complete / accurate?		
(7) Is the applicable sections of the DCII Specification requirements (Appendix D) been certified complete?		
(8) Have all test cases been identified for Enterprise acceptance testing?		
(9) Has the criteria for operational assessment with the end users been identified and included in the test plan?		
(10) Has all test data and interface files been obtained for Enterprise acceptance testing?		
(11) Has test user accounts been established for Enterprise acceptance testing?		
(12) Is the test environment ready for acceptance testing?		
(13) Are resources available to test?		
(14) Have all TDRs been reviewed / acted upon / resolved?		
(15) Have any TDRs that were deferred to a future release been converted to SCRs for review by the CCB?		

Review Coordinator _____
(Signature)

Technical Project Officer _____
(Signature)

Functional Project Officer _____

(Signature)

Enterprise Test Director

(Signature)

SQA Specialist

(Signature)