NOAA NESDIS CENTER for SATELLITE APPLICATIONS and RESEARCH

DOCUMENT GUIDELINE
DG-9.2.A

TEST READINESS DOCUMENT GUIDELINE - APPENDIX
Version 3.0
GUIDELINE APPENDIX VERSION 3.0

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DATE: October 1, 2009
<Project and/or Product Name>

Test Readiness Review

<Date>

Prepared By: <Preparer 1>\(^1\), <Preparer 2>\(^2\),..., and <Preparer N>\(^N\)

\(^1\) <Organization for Preparer 1>
\(^2\) <Organization for Preparer 2> ...
\(^N\) <Organization for Preparer N>
Review Outline

1. INTRODUCTION
2. CRITICAL DESIGN REVIEW REPORT
3. SOFTWARE ARCHITECTURE
4. <UNIT 1 NAME> UNIT TEST READINESS
5. <UNIT 2 NAME> UNIT TEST READINESS
6. <UNIT 3 NAME> UNIT TEST READINESS
7. RISKS AND ACTIONS
8. SUMMARY AND CONCLUSIONS
1. INTRODUCTION
2. CRITICAL DESIGN REVIEW REPORT
3. SOFTWARE ARCHITECTURE
4. <UNIT 1 NAME> UNIT TEST READINESS
5. <UNIT 2 NAME> UNIT TEST READINESS
6. RISKS AND ACTIONS
7. SUMMARY AND CONCLUSIONS
Section 1 – Introduction

Presented by

<Presenter’s Name>
<Presenter’s Title/Role>
<Presenter’s Organization>
The Development Project Plan (DPP) is a standard artifact of the STAR EPL process. The DPP identifies project objectives, stakeholder roles and tasks, resources, milestones and schedule. TRR reviewers can access this document at <pointer to the DPP>.

Guidelines for the DPP are found in STAR EPL process asset DG-5.1. TRR reviewers can access this document at <pointer to DG-5.1>.
Project Objectives

- **Objective 1**
  - Sub-bullet 1
  - ............
  - Sub-bullet N

- **Objective 2**
  - Sub-bullet 1
  - ............
  - Sub-bullet N

- ..................

- **Objective M**
  - Sub-bullet 1
  - ............
  - Sub-bullet N

Section 1.2
Project Stakeholders

- **<Stakeholder Role 1> - <Named Stakeholder(s) or TBD>**
  - Sub-bullet 1 (Description of stakeholder tasks)
  - ............
  - Sub-bullet M (Description of stakeholder tasks)

- **<Stakeholder Role 2> - <Named Stakeholder(s) or TBD>**
  - Sub-bullet 1 (Description of stakeholder tasks)
  - ............
  - Sub-bullet M (Description of stakeholder tasks)

- ......................

- **<Stakeholder Role N> - <Named Stakeholder(s) or TBD>**
  - Sub-bullet 1 (Description of stakeholder tasks)
  - ............
  - Sub-bullet M (Description of stakeholder tasks)
## Project Stakeholders

### Section 1.3 – Table Alternative

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Names</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;Role 1&gt;</td>
<td>&lt;Names or TBD&gt;</td>
<td>&lt;Description&gt;</td>
</tr>
<tr>
<td>&lt;Role 2&gt;</td>
<td>&lt;Names or TBD&gt;</td>
<td>&lt;Description&gt;</td>
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<tr>
<td>&lt;Role N&gt;</td>
<td>&lt;Names or TBD&gt;</td>
<td>&lt;Description&gt;</td>
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</table>
Project Milestones

- Gate 3 Review - <Date>
- Project Requirements Review - <Date>
- Preliminary Design Review - <Date>
- Critical Design Review - <Date>
- Gate 4 Review - <Date>
- Test Readiness Review - <Date>
- Code Test Review - <Date>
- System Readiness Review - <Date>
- Gate 5 Review - <Date>
- Delivery to Operations - <Date>

Section 1.4
### Project Timeline

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
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<tr>
<td><strong>IASI L1C Products</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algorithm Development Phase</td>
<td>503 days</td>
<td>Mon 05/03/04</td>
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<td>72%</td>
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<td>5.4 months</td>
<td>Mon 05/03/04</td>
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<td>100%</td>
<td></td>
</tr>
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<td>6 months</td>
<td>Wed 05/26/04</td>
<td>Wed 06/29/04</td>
<td>100%</td>
<td>2</td>
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<td>Initial Archive Requirement</td>
<td>30.6 weeks</td>
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<td>Mon 07/10/05</td>
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<td>4</td>
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<tr>
<td>Quality Monitoring Concept</td>
<td>8 months</td>
<td>Wed 07/06/05</td>
<td>Wed 07/10/05</td>
<td>100%</td>
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<td>CDI</td>
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<td>Thu 11/11/06</td>
<td>100%</td>
<td>8</td>
</tr>
<tr>
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<td>Thu 11/17/06</td>
<td>Wed 12/14/06</td>
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<tr>
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<tr>
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<td></td>
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<td>Wed 06/29/04</td>
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<td>100%</td>
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<tr>
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<td>8 months</td>
<td>Wed 07/06/05</td>
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<tr>
<td>Final archive requirement l</td>
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<td>Tue 12/26/05</td>
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<td>3 months</td>
<td>Fri 11/16/06</td>
<td>Fri 11/16/06</td>
<td>100%</td>
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<tr>
<td>CDI</td>
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<tr>
<td>Code transition to Operatio</td>
<td>2 months</td>
<td>Thu 12/01/06</td>
<td>Thu 12/01/06</td>
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<tr>
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<td>Mon 03/15/07</td>
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<td>200 days</td>
<td>Wed 12/13/06</td>
<td>Fri 09/07/07</td>
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- **PDR** 09/29/04
- **L1C Products CDR** 01/12/06
- **L1C Code** 04/05/06
- **L2 Code** 07/31/06
- **ATBD 1st draft** 11/10/06
- **L2 Products CDR** 11/14/06

**Section 1.4**
Project Timeline - Build Phase

Section 1.4 - Phase Partition
Project Plan - Changes Since CDR

<Describe any changes to the project plan – objectives, stakeholders, tasks, schedule and milestones – that have occurred since the Critical Design Review (CDR). Use multiple slides as necessary for clarity.>

<OR, if there have been no changes, state the following:>

• There have been no changes to the project plan since the Critical Design Review (CDR)
Project Plan
Stakeholder Involvement (1)

- Describe the involvement of stakeholders in the project, noting compliance or deviation from the project plan. Use multiple slides as necessary for clarity. Follow the format shown on this slide and the next slide.

  - Development Lead
    » Sub-bullet 1 (Description of involvement related to the Project Plan)
    » ............
    » Sub-bullet M (Description of involvement related to the Project Plan)

  - Development Scientists
    » Sub-bullet 1 (Description of involvement related to the Project Plan)
    » ............
    » Sub-bullet M (Description of involvement related to the Project Plan)

  - Development Testers
    » Sub-bullet 1 (Description of involvement related to the Project Plan)
    » ............
    » Sub-bullet M (Description of involvement related to the Project Plan)
• **Development Programmers**
  » Sub-bullet 1 (Description of involvement related to the Project Plan)
  » ............
  » Sub-bullet M (Description of involvement related to the Project Plan)

• **QA**
  » Sub-bullet 1 (Description of involvement related to the Project Plan)
  » ............
  » Sub-bullet M (Description of involvement related to the Project Plan)

• **CM/DM**
  » Sub-bullet 1 (Description of involvement related to the Project Plan)
  » ............
  » Sub-bullet M (Description of involvement related to the Project Plan)

• **Customers / Users**
  » Sub-bullet 1 (Description of involvement related to the Project Plan)
  » ............
  » Sub-bullet M (Description of involvement related to the Project Plan)
• Guidelines for the TRR reviewers are in STAR EPL process asset PRG-9
  » Reviewers can access this document at <pointer to PRG-9>

• The TRR Review Check List is STAR EPL process asset CL-9
  » Reviewers can access this document at <pointer to CL-9>
TRR Guidelines and Check List

- Guidelines for the TRR reviewers are in STAR EPL process asset PRG-9
  » Reviewers can access this document at <pointer(s) to PRG-9>

- The TRR Check List is in the Development Project Plan (DPP) Appendix C
  » Reviewers can access this document at <pointer(s) to DPP Appendix C>
• The TRR Report (TRRR) is a standard artifact of the STAR EPL process.
  » The TRR reviewers should produce this report after conducting the TRR.
  » The report will be a critical artifact for the Code Test Review (CTR)

• Guidelines for the TRRR are found in STAR EPL process asset DG-9.3
  » TRR reviewers can access this document at <pointer to DG-9.3>
Review Objectives (1)

- Review the project plan
  - Development Project Plan (DPP)

- Review the Critical Design Review
  - Critical Design Review Report (CDRR)

- Review the Software Architecture
  - Focus on changes since CDR
  - Changes will be documented in a revised Software Architecture Document (SWA)

- Review the Unit Test Readiness
  - Unit Test Plan (UTP)

- Review risks and actions
  - Identify open risks and actions
Review Objectives (2)

- <Project-Unique Objective 1>
  » Sub-bullets

- <Project-Unique Objective 2>
  » Sub-bullets

- ........................................
  » ........................................

- <Project-Unique Objective N>
  » Sub-bullets

Section 1.9
1. INTRODUCTION
2. CRITICAL DESIGN REVIEW REPORT
3. SOFTWARE ARCHITECTURE
4. <UNIT 1 NAME> UNIT TEST READINESS
5. <UNIT 2 NAME> UNIT TEST READINESS
6. RISKS AND ACTIONS
7. SUMMARY AND CONCLUSIONS
Section 2 – Critical Design Review Report

Presented by

<Presenter’s Name>
<Presenter’s Title/Role>
<Presenter’s Organization>
CDRR is the approved report of the CDR reviewers. The CDRR can be obtained at <Pointer to the CDRR>

The CDRR includes approval status for each detailed design requirement

» Status should be Pass, Conditional Pass, Waive, or Defer
» Items with “Conditional Pass” status must have associated actions that should be closed prior to TRR
» Items with “Defer” status must have associated actions
  – Actions deferred to the TRR must be addressed prior to TRR approval
» Agreement of relevant stakeholders should be documented

The CDRR includes an assessment of risk items, with recommendations for risk mitigation

» Status of the risk items will be addressed in Section 5 of this TRD
• List the entry criteria for this TRR. Present as bullets. Use multiple slides as necessary for clarity. The following two slides should be used if the standard TRR entry criteria, documented in STAR EPL Check List CL-9, are used.

• If the entry criteria for a particular project have been tailored, revise these slides as necessary to capture the set of entry criteria documented in the CDRR.
• **Entry # 1** - A Critical Design Review Report (CDRR) has been written. The TRR reviewers have access to the current baseline version of the CDRR.

• **Entry # 2** - A Development Project Plan (DPP) has been written. The TRR reviewers have access to the current baseline version of the DPP.

• **Entry # 3** - A Requirements Allocation Document (RAD) has been written. The TRR reviewers have access to the current baseline version of the RAD.

• **Entry # 4** - A Software Architecture Document (SWA) has been written. The TRR reviewers have access to the current baseline version of the SWA.
Entry # 5 – A Detailed Design Document (DDD) has been written for each unit of the software architecture. The TRR reviewers have access to the current baseline version of each DDD.

Entry # 6 - A Verification and Validation Plan (VVP) has been written. The TRR reviewers have access to the current baseline version of the VVP.

Entry # 7 - A Unit Test Plan (UTP) has been written. The TRR reviewers have access to the current baseline version of the UTP.
• **Entry # 8** - Pre-operational code to implement the detailed design is accessible to the TRR reviewers.

• **Entry # 9** - Pre-operational test data, including "truth" data is accessible to the TRR reviewers.

• **Entry # 10** - A Project Baseline Report (PBR) has been written. The TRR reviewers have access to the current baseline version of the PBR.

• **Entry # 11** - A Test Readiness Document (TRD) has been written. TRR review objectives are clearly stated in the TRD.

**Section 2.2**
<List TRR entry criteria that are non-standard (added or revised from the standard set of entry criteria in STAR EPL Check List CL-9), explain the deviation, provide a rationale, and assess the risk, usually by reference to a risk # to be discussed in Section <N> of this TRD>

<If there are no tailored entry criteria, omit this slide>
• <List any standard entry criteria that have been waived for this TRR. Provide a rationale, based on the CDRR, and assess the risk, usually by reference to a risk # to be discussed in Section <N> of this TRD. Use multiple slides as necessary for clarity.>

• <If there are no waived entry criteria, omit this slide>
<Project Name> TRR – Exit Criteria

- List the exit criteria for this TRR. Present as bullets. Use multiple slides as necessary for clarity. The following slides should be used if the standard TRR exit criteria, documented in STAR EPL Checklist CL-9, are used.

- If the exit criteria for a particular project have been tailored, revise these slides as necessary to capture the set of exit criteria documented in the CDRR.

Section 2.3
Exit # 1 - CDR "Conditional Pass" items have been satisfactorily disposed of

Exit # 2 - CDR "Defer" items have been satisfactorily disposed of

Exit # 3 – Changes to the project plan since Gate 4 Review are approved.

Exit # 4 - Requirements allocation changes since CDR are approved

Exit # 5 - Changes to external interfaces since CDR are approved.
• Exit # 6 - Changes to the software architecture since CDR are approved.

• Exit # 7 – Changes to the detailed design since CDR are approved.

• Exit # 8 – Changes to the verification and validation plan since CDR are approved.

• Exit # 9 – The unit test plan and UTP are satisfactory

• Exit # 10 – Pre-operational code to implement the detailed design has been written according to standards and has been built into executable units.
• Exit # 11 – Pre-operational test data, including "truth" data, are satisfactory.

• Exit # 12 – The project baseline and PBR are satisfactory.

• Exit # 13 - The project artifacts document all approved changes to requirements, requirements allocation, external interfaces, software architecture, detailed design, and verification and validation plan since the CDR.

• Exit # 14 - The TRRR documents updated status of project risks and actions.

• Exit # 15 - Project risks and actions are acceptable. Project is ready for unit testing.

Section 2.3
<List TRR exit criteria that are non-standard (added or revised from the standard set of exit criteria in STAR EPL Check List CL-9), explain the deviation, provide a rationale, and assess the risk, usually by reference to a risk # to be discussed in Section <N> of this TRD>

• <If there are no tailored exit criteria, omit this slide>
<List any standard exit criteria that have been waived for this TRR. Provide a rationale and assess the risk, usually by reference to a risk # to be discussed in Section <N> of this TRD. Use multiple slides as necessary for clarity.>

<If there are no waived exit criteria, omit this slide>
1. INTRODUCTION
2. CRITICAL DESIGN REVIEW REPORT
3. SOFTWARE ARCHITECTURE
4. <UNIT 1 NAME> UNIT TEST READINESS
5. <UNIT 2 NAME> UNIT TEST READINESS
6. RISKS AND ACTIONS
7. SUMMARY AND CONCLUSIONS
Section 3 –
Software Architecture

Presented by

<Presenter’s Name>
<Presenter’s Title/Role>
<Presenter’s Organization>
Software Architecture

• The software system is an integrated collection of software elements, or code, that implements the preferred solution, producing well-defined output products from a well-defined set of input data.

• The software architecture describes the structure of the system software elements and the external and internal data flows between software elements.
Section 3.1 – Figure 1
The Context-Layer

- The Context-Layer describes the flows between the system and its external interfaces.
- An external input is defined as a data source needed by the system that is produced or made available by a process external to the system.
- An external output is defined as a data sink that is produced by the system for an external user.
- External interfaces must meet standard criteria to be included in the system architecture.

Section 3.2
External Interfaces

- Illustrate the external interfaces in a context diagram (see next slide for an example).
  - This diagram should have been shown at CDR.
  - If an updated diagram is shown, highlight the changes since CDR.
External Interfaces in the System Architecture

- List all external inputs and outputs to and from the software system>
  » This list should be documented in the SWA, which should have been reviewed and approved at CDR.>
  » If the list has been updated since CDR, note the changes since CDR. Highlight the changes or note that there have been no changes.>

- List all external inputs and outputs to and from the software system in a table if that adds clarity>
  » A table may have been shown at the CDR. If so, adopt this table and revise it as necessary to capture changes since the CDR. If a revised table is shown, highlight the changes since CDR. The table should be consistent with the latest version of the SWA.>
• <If there are no changes since CDR and no open actions on external interfaces:>
  • All external interfaces have been reviewed and approved
  • There are no open actions on external interfaces
  • <If there are changes since CDR or open actions, replace this slide with the next slide>
External Interfaces – Revisions Since CDR

• If there are changes to external interfaces since CDR, provide the rationale for these changes and provide a pointer to a revised SWA that demonstrates the changes are low risk and maintainable.

• List the open actions on the design of external interfaces, noting that these will be addressed in Section <N> of this TRD

Section 3.2
The System-Layer data flow expands upon the Context-Layer data flow, showing the first layer of decomposition.

- In addition to the System-Layer inputs and outputs, the major processing units are shown along with their inputs and outputs.
- Each unit is designed as a stand-alone program for ease of testing and integration into the System-Layer architecture.

Show the System-Layer data flows as a data flow diagram. Highlight the software units that will be tested for the Code Test Review (see next slide for an example). This diagram should have been presented at the CDR. Adopt the figure from the CDR presentation, and revise it as needed to capture any changes since the CDR. The figure should be consistent with the latest version of the SWA.
System-Layer Data Flow

IASI System Flow Diagram

OSDPD Monitoring

Monitoring Logs

3x3 & 0.5x2 global grids

Global binaries

GFS & GDAS grib file forecasts

L1CT matchups

Section 3.3 – Figure 1
Show the System-Layer data flows as a table if that adds clarity. Highlight the software units that will be tested for the Code Test Review.

A table may have been shown at the CDR. If so, adopt this table and revise it as necessary to capture changes since the CDR. If a revised table is shown, highlight the changes since CDR. The table should be consistent with the latest version of the SWA.
System-Layer Architecture - Status

- If there are no changes to the System-Layer architecture since CDR and no open actions on the System-Layer architecture:
  - All System-Layer components have been reviewed and approved
  - There are no open actions on the System-Layer architecture
- If there are changes since CDR or open actions, replace this slide with the next slide

Section 3.3
System-Layer Architecture – Revisions Since CDR

• If there are changes to the System-Layer architecture since CDR, provide the rationale for these changes and provide a pointer to a revised SWA that documents the changes.

• List the open actions on the System-Layer architecture, noting that these will be addressed in Section <N> of this TRD.

Section 3.3
1. INTRODUCTION
2. CRITICAL DESIGN REVIEW REPORT
3. SOFTWARE ARCHITECTURE
4. <UNIT 1 NAME> UNIT TEST READINESS
5. <UNIT 2 NAME> UNIT TEST READINESS
6. RISKS AND ACTIONS
7. SUMMARY AND CONCLUSIONS
Section 4 -
<Unit 1 Name> Unit
Test Readiness

Presented by

<Presenter’s Name>
<Presenter’s Title/Role>
<Presenter’s Organization>
<Unit 1 Name> Unit – Purpose and Function

- <Explain the purpose of the unit and its function in the product processing system>
  » <This explanation should be consistent with, and can be obtained from, the Unit Detailed Design Document (Section 2.1 of the DDD) or the Unit Test Plan (Section 3.1 of the UTP)>
• <Show the Unit-Layer process flow as a data flow diagram>
  » <This diagram should be consistent with, and can be obtained from, the SWA or UTP (Section 3.2). See next slide for an example). Adopt the CDD Section 6 diagram, if the data flows are unchanged since CDR, or revise the diagram as necessary. The diagram should be found in SWA v2r2.>
Section 4.2 – Figure 1
<Unit 1 Name> Unit - Test Items

- List all unit components that have been selected for testing, as documented in Section 3.3 of UTP v1r0>
  - These items should be part of the system architecture as documented in the SWA and should be included in the Verification and Validation Plan (VVP). Typically, they are sub-processes of the unit’s process flow (e.g. Layer-2 elements, Layer-3 elements, etc.).
  - Test items should be numbered as they are numbered in the UTP (Section 3.3)

- Give a brief description of each test item
  - For pre-operational code items, note the code language and demonstrate that the appropriate coding standards have been followed. Show examples of code to support this demonstration.
<List the requirements allocated to each test item, consistent with the requirements allocation documented in the Requirements Allocation Document (RAD) and as documented in the UTP (Section 3.4)>

» <If the number of requirements and test items is too large to be listed individually, it is acceptable to refer the reviewers to UTP Section 3.4 for documentation of the complete requirements trace>

» <If there has been a change to the requirements allocation since CDR, include the following slide>
<Unit 1 Name> Unit – Requirements Allocation Changes

- If there has been a change to the requirements allocation since CDR, include this slide.
- **List each requirements allocation change**
  - If a derived requirement, list higher-level driving requirements.
  - If a basic requirement, list derived requirements that are affected.
  - Note whether the change is due to a new requirement, a changed requirement, or a design change.
    - If due to a new or changed requirement, specify the requirement and trace it to the requirements presentation in this TRD.
    - If due to a design change, specify the change and trace it to the design presentation in this TRD.
  - Note whether the change has been approved at a delta Requirements Review.
  - If the change has not been approved:
    - Explain rationale for the change (e.g., revealed by detailed design issue, operational constraint).
    - Note potential effects on the project plan.
    - Document the agreement of affected stakeholders.
    - Note new or modified risks that result from the change, to be summarized in Section 6 of this TRD.
    - Note any recommended actions that result from the change, to be summarized in Section <N> of this TRD.

Section 4.4
<Unit 1 Name> Unit - Test Data Description

- List all data files that will be used as input files for the unit test, as documented in Section 3.5 of UTP v1r0
  - "Test data" includes sensor data (real, proxy, or simulated), ancillary data, control files, parameter files, and look up tables
  - It is recommended that these be listed in a table. See the next slide for an example

Section 4.5
## Test Data Table

<table>
<thead>
<tr>
<th>Test Data Item</th>
<th>Type</th>
<th>Filename</th>
<th>Design Description Filename</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Real sensor data</td>
<td>IASI_L1_Thin_001.bin</td>
<td>IASI L1 thinned radiances</td>
</tr>
<tr>
<td>2</td>
<td>Ancillary data</td>
<td>AVHRR_CM_001.bin</td>
<td>AVHRR cloud mask</td>
</tr>
<tr>
<td>3</td>
<td>Parameter file</td>
<td>IASI_AVTP.par</td>
<td>AVTP parameter file</td>
</tr>
<tr>
<td>4</td>
<td>Look up Table</td>
<td>AVTP.lut</td>
<td>AVTP look up table</td>
</tr>
</tbody>
</table>
<Unit 1 Name> Unit - Test Data Description

- Describe each input data file in sufficient detail for a reviewer to be able to confirm that its contents and format matches the description of the appropriate input file documented in Section 4 of the unit’s DDD.
  - The DDD will probably have a generic file identification. Make sure you identify your specific filename with the generic file identification in the DDD.
Unit 1 Name Unit - Truth Data Description

- List all “truth” data sets that will be used to assess the performance of the unit, as documented in Section 3.5 of UTP v1r0
  - Explain how each real or proxy truth data set has been obtained.
  - Explain how each simulated truth data set has been constructed.

Section 4.5
<Unit 1 Name> Unit -
Test Environment

• <Describe the environment in which the unit tests will be performed, consistent with the VVP>
  » <This description can be obtained from the UTP (Section 3.6)>

• <Demonstrate that the planned test environment complies with the project’s test environment requirements, as documented in the RAD>
  » <This demonstration can be obtained from the UTP (Section 3.6)>

• <NOTE: For most projects, the same test environment will be used for all unit tests. In that case, include the following bullet.>

• The test environment for all unit tests will be the same as the environment described here for the <Unit 1 Name> unit

Section 4.6
• Identify all configuration items that will be used in the unit test, including code modules, test data sets, utilities, libraries, etc.

• Each item in the test configuration has been placed in the project baseline under configuration control
  » Documentation can be found in the Project Baseline Report (PBR)
The project’s baseline and change history is maintained in a Project Baseline Report (PBR).

- Document guidelines are in STAR EPL process asset DG-5.4.
  - <Pointer to DG-5.4>
- The PBR includes the change history, approval status, and location of every Configuration Item in the project’s baseline.
- PBR v3r0, a TRR artifact, can be accessed at <pointer to PBR v3r0>
Unit 1 Name Unit - Test Methods

- Describe the method or methods that will be used to test each test item, as documented in the UTP (Section 3.8)
  - Note which test items will be verified with each method or combination of methods
- Demonstrate that the methods selected for verification of a given item will address the requirements to be verified for that item
  - Refer to the project’s VVP as appropriate.

Section 4.8
<Unit 1 Name> Unit - Test Sequence

- Describe the planned sequence of test actions in sufficient detail that a reviewer can confirm that all test items are exercised, all test data is utilized, all planned test methods are used as planned, and the planned output will allow a reviewer to confirm that the requirements identified in Section 4.4 will be satisfied. Use material from Section 3.9 of UTP v1r0.

  » Specifically note which sequence steps exercise which test items, utilize which test data sets, and use which test methods

  » Use as many slides as necessary for clarity

Section 4.9
<Unit 1 Name> Unit -
Unit Test Risks

- Identify and evaluate risks to successful implementation of the test plan for this unit, as documented in UTP v1r0 (Section 3.10).

- Each item (risk) is reported as follows:
  - Requirement – the basic or derived requirement that the risk pertains to
  - Requirement Allocation – the system or product component(s) that the risk pertains to
  - Risk – the description of the risk
  - Evaluation (e.g. High, Medium, Low)
  - Mitigation – the plan to mitigate the risk
  - Actions – actions to implement the mitigation plan
  - Status – status of the action(s)
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6. RISKS AND ACTIONS
7. SUMMARY AND CONCLUSIONS
Section 5 - <Unit 2 Name> Unit Test Readiness

Presented by

<Presenter’s Name>
<Presenter’s Title/Role>
<Presenter’s Organization>
<Unit 2 Name> Unit - Test Readiness

- <Repeat the Unit 1 presentation format, as presented in Section 4, but substituting material appropriate for Unit 2>
- <For material that is common to all units (e.g. test environment), it is sufficient to note this without repeating the details>
- <Repeat for each unit in the product processing system>

Sections 5.1 – 5.10
1. INTRODUCTION
2. CRITICAL DESIGN REVIEW REPORT
3. SOFTWARE ARCHITECTURE
4. <UNIT 1 NAME> UNIT TEST READINESS
5. <UNIT 2 NAME> UNIT TEST READINESS
6. RISKS AND ACTIONS
7. SUMMARY AND CONCLUSIONS
Section 6 – Risks and Actions

Presented by

<Presenter’s Name>
<Presenter’s Title/Role>
<Presenter’s Organization>
• There are <fill in the correct number> risks to be reviewed at the TRR
  » <fill in the correct number> risks were identified at the CDR and documented in the CDRR
  » <fill in the correct number> risks that were identified after the CDR

• The following slides contain, for each risk item:
  » A risk statement
  » Risk assessment (Severity and Likelihood)
  » Risk mitigation recommendation
  » Status of actions identified to mitigate the risk

Section 6.1
Risks from the CDR – Risk # 1

- **RISK # 1 - <Risk statement>**
- **Risk Assessment: <TBS>** (Severity = <TBS>, Likelihood = <TBS>). *(<TBS = HIGH, MEDIUM, or LOW>)*
- **Risk Mitigation: **<Describe the risk mitigation plan, as stated in the CDR report. Use sub-bullets as warranted for clarity. Note actions associated with each item (sub-bullet) of the plan.>*
- **Status: **<Present the development team’s current assessment of the risk (HIGH, MEDIUM, LOW, or NONE). Explain the rationale for the assessment (e.g. list actions that are completed).>*
- **<Present status of actions associated with Risk # 1 in subsequent slides. Present completed actions, then open actions. Use separate slides for each action (see next 2 slides).>*
Completed Actions – <Action number>

• ACTION: <Number> - <Action statement>

• CLOSURE CRITERIA: <Closure criteria statement>

• STATUS: Completed. <Demonstrate that the closure criteria have been met. Use multiple slides as necessary.>

• <Repeat for each completed action associated with Risk # 1>
Open Actions – <Action number>

- ACTION: <Number> - <Action statement>
- CLOSURE CRITERIA: <Closure criteria statement>
- CLOSURE PLAN: <Closure plan>
- STATUS: Open. <Explain what parts of the closure plan have been completed and what remains to be done. Note any additional risk to budget or schedule. Use multiple slides as necessary.>

- <Repeat for each open action associated with Risk # 1>
Risks from the CDR – Risk # 2

- <Present Risk # 2 status, using the same format as for Risk # 1>

- <On separate slides, present status of all actions associated with Risk # 2. Present completed actions, then open actions. Use the same format as for Risk # 1 actions.>

- <Repeat for each risk>

- <Then, present any new risks identified after the PRR (see next slide)>

Section 6.1
New Risks - Risk # <N>

- RISK # <N> - <Risk statement>
- Risk Assessment: <TBS> (Severity = <TBS>, Likelihood = <TBS>). <TBS = HIGH, MEDIUM, or LOW>
- Risk Mitigation: <Describe the risk mitigation plan. Use sub-bullets as warranted for clarity. Note actions associated with each item (sub-bullet) of the plan.>
- <Present status of actions associated with Risk # N in subsequent slides. Present completed actions, then open actions. Use separate slides for each action (see next 2 slides).>

Section 6.2
Completed Actions – <Action number>

- ACTION: <Number> - <Action statement>
- CLOSURE CRITERIA: <Closure criteria statement>
- STATUS: Completed. <Demonstrate that the closure criteria have been met. Use multiple slides as necessary.>
- <Repeat for each completed action associated with Risk # N>

Section 6.2
Open Actions –
<Action number>

- ACTION: <Number> - <Action statement>
- CLOSURE CRITERIA: <Closure criteria statement>
- CLOSURE PLAN: <Closure plan>
- STATUS: Open. <Explain what parts of the closure plan have been completed and what remains to be done. Note any additional risk to budget or schedule. Use multiple slides as necessary.>
- <Repeat for each open action associated with Risk # N>
New Risks – Risk # <N + 1>

- RISK # <N + 1> - <Risk statement>

- Risk Assessment: <TBS> (Severity = <TBS>, Likelihood = <TBS>). <TBS = HIGH, MEDIUM, or LOW>

- Risk Mitigation: <Describe the risk mitigation plan. Use sub-bullets as warranted for clarity. Note actions associated with each item (sub-bullet) of the plan.>

- <Present status of actions associated with Risk # N + 1 in subsequent slides, following the same format used for the Risk # N actions. Present completed actions, then open actions. Use separate slides for each action.>

Section 6.2
Risk Summary – <N> Risks Can Be Closed

- <Present a bulleted list of risk statements for the risks that can be closed>
  - <For each risk, list the associated actions that can be closed. Each of these should have been presented in Sections 6.1 or 6.2 as a completed action.>
  - <Use multiple slides as necessary for clarity>

Section 6.3
Risk Summary – <N> Risks Remain Open

- Present a bulleted list of risk statements for the risks that are still open. Present HIGH risks first, followed by MEDIUM risks, then LOW risks.

  - For each risk, list the actions that must be closed to reduce the risk to an acceptable level, with closure plans and estimated closure dates.
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5. <UNIT 2 NAME> UNIT TEST READINESS
6. RISKS AND ACTIONS
7. SUMMARY AND CONCLUSIONS
Section 7 –
Summary and Conclusions

Presented by

<Presenter’s Name>
<Presenter’s Title/Role>
<Presenter’s Organization>
Review Objectives Have Been Addressed

<Explain how each review objective has been addressed>

- Project plan has been reviewed
  » <Notable conclusions from this section>

- CDR Report and actions have been reviewed
  » <Notable conclusions from this section>

- Software system architecture and interfaces have been reviewed
  » <Notable conclusions from this section>

- Requirements allocation changes have been reviewed
  » <Notable conclusions from this section>

Section 7.1
Review Objectives Have Been Addressed

<Explain how each review objective has been addressed>

• <Unit 1 Name> unit test readiness has been reviewed
  » <Notable conclusions from this section>

• <Unit 2 Name> unit test readiness has been reviewed
  » <Notable conclusions from this section>

• ........

• <Unit N Name> unit test readiness has been reviewed
  » <Notable conclusions from this section>

• Risks and Actions have been reviewed
  » <Notable conclusions from this section>

Section 7.1
Issues, Actions And Risks

<List important issues, actions and risks that require attention. Use multiple slides as necessary for clarity.>

- <Item 1>
  - <Conclusions about item 1>

- ........................................
  - ........................................

- <Item N>
  - <Conclusions about item N>
Next Steps

<List recommendations for next steps after the TRR>

- Preparation for code unit tests
  - <Recommendations for open actions>
  - <Preparation of Code Test Review artifacts>
- Code unit tests
  - <Include planned dates for each unit test and a planned date for the Code Test Review>
Open Discussion

- The review is now open for free discussion