

DATA ITEM DESCRIPTION

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| 1. TITLE SOFTWARE TEST REPORT (STR) | | 2. IDENTIFICATION NUMBER DID-FAA-026-14 | |
| 3. DESCRIPTION/PURPOSE 3.1 The Software Test Report (STR) is a record of the qualification testing performed on a Software Configuration Item (SCI), a software system or subsystem, or other software-related item/products. 3.2 The STR enables the acquirer to assess the testing and its results. | | | |
| 4. APPROVAL DATE (YYMMDD) August 11, 2000 | 5. OFFICE OF PRIMARY RESPONSIBILITY (OPR) AIO-2/ASU-500 | 6a. DTC APPLICABLE N/A | 6b. GIDEP APPLICABLE N/A |
| 7. APPLICATION/INTERRELATIONSHIP 7.1 This Data Item Description (DID) contains the format and content preparation instructions for the data product generated by specific and discrete task requirements as delineated in the contract. 7.2 This DID is used when the contractor is tasked to develop and record the results of software test activities. 7.3 The Contract Data Requirements List (CDRL) (DD Form 1423, or equivalent) should specify whether deliverable data are to be delivered on paper or electronic media; are to be in a given electronic form (such as ASCII, or compatible with a specified word processor or other support software); may be delivered in developer format rather than in the format specified herein; and may reside in a computer-aided software engineering (CASE) or other automated tool rather than in the form of a traditional document. | | | |
| 8. APPROVAL LIMITATION NONE | 9a. REFERENCES FAA-STD-026 | | 9b. AMSC NUMBER N/A |
| 10. PREPARATION INSTRUCTIONS 10.1 <u>General instructions.</u> a. Automated techniques. Use of automated techniques is encouraged. The term "document" in this DID means a collection of data regardless of its medium. b. Alternate presentation styles. Diagrams, tables, matrices, and other presentation styles are acceptable substitutes for text when data required by this DID can be made more readable using these styles. | | | |
| 11. DISTRIBUTION STATEMENT DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited. | | | |

10. PREPARATION INSTRUCTIONS -- 10.1 General Instructions (continued)

c. Title page or identifier. The document shall include a title page containing, as applicable: document number; volume number; version/revision indicator; security markings or other restrictions on the handling of the document; date; document title; name, abbreviation, and any other identifier for the system, subsystem, or item to which the document applies; contract number; CDRL item number; organization for which the document has been prepared; name and address of the preparing organization; distribution statement; and signature blocks for the developer representative authorized to release the document, the acquirer representative authorized to approve the document, and the dates of release/approval. For data in a database or other alternative form, this information shall be included on external and internal labels or by equivalent identification methods.

d. Table of contents. The document shall contain a table of contents providing the number, title, and page number of each titled paragraph, figure, table, and appendix. For data in a database or other alternative form, this information shall consist of an internal or external table of contents containing pointers to, or instructions for accessing, each paragraph, figure, table, and appendix or their equivalents.

e. Page numbering/labeling. Each page shall contain a unique page number and display the document number, including version, volume, and date, as applicable. For data in a database or other alternative form, files, screens, or other entities shall be assigned names or numbers in such a way that desired data can be indexed and accessed.

f. Response to tailoring instructions. If a paragraph is tailored out of this DID, the resulting document shall contain the corresponding paragraph number and title, followed by "This paragraph has been tailored out." For data in a database or other alternative form, this representation need occur only in the table of contents or equivalent.

g. Multiple paragraphs and subparagraphs. Any section, paragraph, or subparagraph in this DID may be written as multiple paragraphs or subparagraphs to enhance readability.

h. Standard data descriptions. If a data description required by this DID has been published in a standard data element dictionary specified in the contract, reference to an entry in that dictionary is preferred over including the description itself.

i. Substitution of existing documents. Commercial or other existing documents may be substituted for all or part of the document if they contain the required data.

10.2 Content requirements. Content requirements begin on the following page. The numbers shown designate the paragraph numbers to be used in the document. Each such number is understood to have the prefix "10.2" within this DID. For example, the paragraph numbered 1.1 is understood to be paragraph 10.2.1.1 within this DID.

10. PREPARATION INSTRUCTIONS -- 10.2 Content Requirements (continued)

1. Scope. This section shall be divided into the following paragraphs.

1.1 Identification. This paragraph shall contain a full identification of the system and the software to which this document applies, including, as applicable, identification number(s), title(s), abbreviation(s), version number(s), and release number(s).

1.2 System overview. This paragraph shall briefly state the purpose of the system and the software to which this document applies. It shall describe the general nature of the system and software items; summarize the history of system development, operation, and maintenance; identify the project sponsor, acquirer, user, developer, and support agencies; identify current and planned operating sites; and list other relevant documents.

1.3 Document overview. This paragraph shall summarize the purpose and contents of this document and shall describe any security or privacy considerations associated with its use.

2. Referenced documents. This section shall list the number, title, revision, and date of all documents referenced in this report. This section shall also identify the source for all documents not available through normal Government stocking activities.

3. Overview of test results. This section shall be divided into the following paragraphs to provide an overview of test results.

3.1 Overall assessment of the software tested. This paragraph shall:

a. Provide an overall assessment of the software as demonstrated by the test results in this report. Provide rationale for the assessment.

b. Identify any remaining deficiencies, limitations, or constraints that were detected by the testing performed. Problem/change reports may be used to provide deficiency information.

c. For each remaining deficiency, limitation, or constraint, describe:

1) Its impact on software and system performance, including identification of requirements not met

2) The impact on software and system design to correct it

3) A recommended solution/approach for correcting it

d. Identify any deferred testing and provide a justification for the deferral

3.2 Impact of test environment. This paragraph shall provide an assessment of the manner in which the test environment may be different from the operational environment and the effect of this difference on the test results.

10. PREPARATION INSTRUCTIONS -- 10.2 Content Requirements (continued)

3.3 Recommended improvements. This paragraph shall provide any recommended improvements in the design, operation, or testing of the software tested. A discussion of each recommendation and its impact on the software may be provided. If no recommended improvements are provided, this paragraph shall state "None."

4. Detailed test results. This section shall be divided into the following paragraphs to describe the detailed results for each test. Note: The word "test" means a related collection of test cases.

4.x (Project-unique identifier of a test). This paragraph shall identify a test by project-unique identifier and shall be divided into the following subparagraphs to describe the test results.

4.x.1 Summary of test results. This paragraph shall summarize the results of the test. The summary shall include, possibly in a table, the completion status of each test case associated with the test (for example, "all results as expected," "problems encountered," "deviations required"). When the completion status is not "as expected," this paragraph shall reference the following paragraphs for details.

4.x.2 Participants: This paragraph shall identify the names of all participants and the functions they performed.

4.x.3 Problems encountered. This paragraph shall be divided into subparagraphs that identify each test case in which one or more problems occurred.

4.x.3.y (Project-unique identifier of a test case). This paragraph shall identify by project-unique identifier a test case in which one or more problems occurred, and shall provide:

- a. A brief description of the problem(s) that occurred
- b. Identification of the test procedure step(s) in which they occurred
- c. Reference(s) to the associated problem/change report(s) and backup data, as applicable
- d. The number of times the procedure or step was repeated in attempting to correct the problem(s) and the outcome of each attempt
- e. Back-up points or test steps where tests were resumed for retesting

4.x.4 Deviations from test cases/procedures. This paragraph shall be divided into subparagraphs that identify each test case in which deviations from test case/test procedures occurred. It shall identify define the schedule and method of incorporating identified changes into the next scheduled test, if applicable.

4.x.4.y (Project-unique identifier of a test case). This paragraph shall identify by project-unique identifier a test case in which one or more deviations occurred, and shall provide:

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10. PREPARATION INSTRUCTIONS -- 10.2 Content Requirements (continued)

- a. A description of the deviation(s) (for example, test case run in which the deviation occurred and nature of the deviation, such as substitution of required equipment, procedural steps not followed, schedule deviations). (Red-lined test procedures may be used to show the deviations)
- b. The rationale for the deviation(s)
- c. An assessment of the deviations' impact on the validity of the test case

4.x.5. **Data Collection and Analysis:** This section shall explain how test data were collected and the method of analysis used to obtain results.

5. **Test log.** This section shall present, possibly in a figure or appendix, a chronological record of the test events covered by this report. This test log shall include:

- a. The date(s), time(s), and location(s) of the tests performed
- b. The hardware and software configurations used for each test including, as applicable, part/model/serial number, manufacturer, revision level, and calibration date of all hardware, and version number and name for the software components used
- c. The date and time of each test-related activity, the identity of the individual(s) who performed the activity, and the identities of witnesses, as applicable

6. **Notes.** This section shall contain any general information that aids in understanding this document (e.g., background information, glossary, bibliography). This section shall include an alphabetical listing of all acronyms, abbreviations, and their meanings as used in this document and a list of any terms and definitions needed to understand this document.

A. **Appendixes.** Appendixes may be used to provide information published separately for convenience in document maintenance (e.g., charts, classified data). As applicable, each appendix shall be referenced in the main body of the document where the data would normally have been provided. Appendixes may be bound as separate documents for ease in handling. Appendixes shall be lettered alphabetically (A, B, etc.).