

DATA ITEM DESCRIPTION

1. TITLE		2. IDENTIFICATION NUMBER	
SOFTWARE CONFIGURATION MANAGEMENT PLAN (SCMP)		DID-FAA-026-24	
DESCRIPTION/PURPOSE			
<p>3.1 The Software Configuration Management Plan (SCMP) shall describe those functions performed by personnel performing Software Configuration Management activities for programs on software intensive projects.</p> <p>3.2 The SCMP shall be tailored to address the types of software to be included in the project (e.g. newly developed software, modified software, support software, and Commercial-Off-The-Shelf /Non-Developmental Items (COTS/NDI)). Furthermore, it provides the acquirer insight into the software configuration process, the methods to be used, the approach to be followed, and software configuration control. Care should be taken to eliminate tasks that add unnecessary costs and data that do not add value to the process or the product.</p>			
4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTC APPLICABLE	6b. GIDEP APPLICABLE
August 11, 2000	AIO-2/ASU-500	N/A	N/A
a) APPLICATION/INTERRELATIONSHIP			
<p>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.</p> <p>7.2 This DID is used when the contractor is tasked to develop and record plans for conducting software Configuration Management activities.</p> <p>7.3 The Contract Data Requirements List (CDRL/DD 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.</p>			
8. APPROVAL LIMITATION	9a. REFERENCES		9b. AMSC NUMBER
August 11, 2000	AIO-2/ASU-500		N/A
10. PREPARATION INSTRUCTIONS			
<p>10.1 <u>General instructions.</u></p> <p>a. <u>Automated techniques.</u> Use of automated techniques is encouraged. The term "document" in this DID means a collection of data regardless of its medium.</p> <p>b. <u>Alternate presentation styles.</u> 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.</p> <p style="text-align: right;"><i>(Continued on Page 2)</i></p>			
11. DISTRIBUTION STATEMENT			
DISTRIBUTION STATEMENT: Approved for public release; distribution is unlimited.			

c. **Title page or identifier with signature blocks.** 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.

1 **Scope.** This paragraph shall identify the software configuration items (SCIs) that this document applies to. If this SCMP contains CM plans for all software, and all types of software (e.g., newly developed software, support software, COTS/NDI), to be supplied with the system, then this paragraph shall indicate so.

2 **Purpose** This paragraph shall state the purpose of the system, and identify the functions of the software to which this SCMP applies.

3 **Organizational Structure.** This paragraph shall describe the organization (s) responsible for performing software CM. Authority and responsibility of each organization and its relationship to other organizations (e.g., software quality assurance) shall be described.

4 **Configuration Management Activities**

4.1 **Configuration Identification** This paragraph shall contain the following subparagraphs as applicable.

4.1.1 **Developmental Configuration** This subparagraph shall identify the contractor's internal developmental configuration(s) to be used in the development of the software. For each developmental configuration identified, the methods of establishing it shall be described and the contents shall be listed. For example, the engineering release of the first draft of the Software Design Description shall establish the internal Developmental Configuration.

4.1.2 **SCI and Related Documentation** This subparagraph shall describe the methods to be used in identifying (e.g., naming, marking, numbering) the components of the SCI and related documents. This paragraph shall also describe how revisions to software components are identified.

4.2 **Configuration Control**. This paragraph shall be divided into the following subparagraphs to provide a detailed description of the procedures to be used in controlling changes to and maintaining the Developmental Configuration(s).

4.2.1 **Flow of Configuration Control**. This subparagraph shall describe the process by which problems and changes are submitted, reviewed, and subsequently approved or disapproved. This description may be accomplished graphically by a configuration control flow chart.

4.2.2 **Report for Software Problems and Changes** This paragraph shall identify and describe the format used to document software problems and changes detected during software development. This report shall include the following information, or equivalent:

- a) **Subsystem or Project Name** - The name of the subsystem or development project to which this report applies
- b) **Originator** - The name, telephone number, and designator of the organization submitting the report
- c) **Problem Number** – The assigned problem number (once a problem number has been assigned in accordance with established project configuration control procedures).
- d) **Problem Name** – A brief phrase descriptive of the problem and descriptive of a similar problem, if applicable.

- e) **Software Element of Document Affected** - The specific software element(s), document(s), paragraph(s), or both to which the report applies, including appropriate configuration identification and version number, if applicable. Include all established baselines for developmental configurations affected.
- f) **Origination Date** – The date the report is first submitted.
- g) **Need Date or Priority** - The date the fix is needed in order to maintain established schedules or priority in accordance with established standards.
- h) **Description of Problem** - A description of the problem and the conditions, inputs, and equipment configuration under which the problem arises. A description of the activities leading up to the problem occurrence. Sufficient problem information to permit duplication and analysis. Include relationship to other reported problems and modifications.
- i) **Analyst** - The name, telephone number, and organization of the individual assigned to analyze the problem.
- j) **Date Assigned** – The date the analyst was assigned.
- k) **Date Complete** - The date the analysis was completed.
- l) **Analysis Time** - The time required to analyze the problem report.
- m) **Recommended Solution** - After analysis of the problem, the recommended solution and alternative solutions, if available and the nature of the recommended solution by a short descriptive phrase. When applicable, supporting rationale and test results shall be included.
- n) **Impacts** - The cost, schedule, and interface impacts if the solution is approved. Also, performance impacts if the solution is not approved. As applicable, include the impact on the other systems, configuration items, other contractors, system employment, integrated logistics support, system resources, training, etc.
- o) **Problem Status** - The problem status designated by the configuration control procedures.
- p) **Approval of Solution** - To be designated by the cognizant configuration control authority.
- q) **Follow-up Action** - Actions following resolution of the problem.
- r) **Corrector** - The name, telephone number, and organization of the individual correcting the problem.
- s) **Correction Date** - The date the problem was corrected.
- t) **Version Number** - The version in which the problem will be corrected.
- u) **Correction Time** - The time required to correct the problem.

- v) **Implementation Solution** - A brief description of the implemented solution to the problem.

4.2.3 **Review Procedures**. This paragraph shall describe the purpose of and the procedures to be employed by any review boards (e.g., Software Configuration Control Board) associated with the flow of configuration control. This paragraph shall also describe how the procedures used by any Review Boards, in conjunction with the configuration identification scheme, provide historical traceability.

4.2.3.1 **Review Board X (insert title) Procedures**. This subparagraph shall describe the purpose of and the procedures to be followed by Review Board X. This subparagraph shall also describe how the procedures used by Review Board X, in conjunction with the configuration identification scheme, to provide historical traceability.

4.2.4 **Storage, Handling and Release of Project Media**. This paragraph shall describe the methods to formally control the storage, handling, and release of software and documentation (including master copies) during the development process.

4.2.5 **Source Code Control** . This paragraph shall describe the restrictions applied in order to assure the integrity of source code. It is essential that control (either initial input or changes) be restricted to authorized individuals. The controls described in the configuration management plan shall address the levels of control required for code entry, change, access and distribution.

4.3 **Relationship to Quality Program Plan**. The contractor shall describe the interrelationship in each of the elements of configuration management with the quality program functions and indicate those relationships in the quality program plan.

4.4 **Additional Control**. This paragraph shall identify any additional configuration control activities not discussed above.

4.5 **Configuration Status Accounting**. This paragraph shall define the configuration status accounting system. The content, format, and purpose of the status accounting records and reports shall be described.

4.6 **Configuration Audits**. This paragraph shall describe the procedures for conducting configuration audits. The description of how the configuration status accounting reports and records will be used in conducting these audits shall be included.

4.7 **Preparation for Configuration Authentication**. This paragraph shall describe the contractor's procedures to prepare for and respond to authentication of the applicable specifications. As a minimum, this subparagraph shall include the procedures for:

- a. Submitting specifications to the contracting agency for review and authentication.
- b. Ensuring the incorporation of approved changes.
- c. Updating the configuration status accounting reports to reflect approved baseline(s).

4.8 **Configuration Management Major Milestones**. This paragraph shall identify the major internal and Government CM-related milestones for the life cycle phase(s) of the contractual effort.

5 NOTES

This section shall contain any general information that aids in understanding this document (e.g., background information, glossary). This section shall include an alphabetical listing of all acronyms, abbreviations, and their meanings as used in this document.

6 APPENDIXES

Appendixes may contain any supplemental information published separately for convenience in document maintenance (e.g., charts, classified data). Appendixes may be bound as separate documents for ease in handling. Appendixes shall be numbered sequentially in Roman numeral (I, II, etc.), and the paragraphs within each appendix shall all be numbered as multiples of 10 (e.g., Appendix I, paragraph 10.1, 10.2, Appendix II, paragraph 20.1, 20.2, etc.).

As applicable, each appendix shall be referenced in the main body of the document where the data would normally have been provided.