

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Segment:	Version:	
POC(s):	Start Date: Start Time:	Finish Date: Finish Time:

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
1.	<b>Item 5-80</b> [3.2.1, p.3-11]				<p>[All Segments] <b>The segment has been registered with the SSA.</b></p> <p>1. Recheck with CM to ensure all is correct and proper with the registration                      2. Accumulate any/all problems associated with documentation to this point -- review and consolidate comments.</p> <p>Note: This has probably already been completely accomplished -- this item is here to provide one last check on the registration and required documentation:</p>
2.	<b>Item 5-82</b> [3.2.1.1, p. 3-11,12 (related information only)]				<p>[All Segments] <b>System resources required by the segment have been registered with the SSA.</b></p> <p>Check Documentation</p>
3.	<b>Item 5-94</b> [2.1.4, Item 5, p. 2-23]				<p>[All Segments] <b>The segment has been loaded and tested in the COE environment prior to submission to the SSA.</b></p> <p>The developer is responsible for this -- and should make comment of it in the delivered documentation -- this step provides a recheck since the segment should have gone through all steps for loading and installation at least twice by this time. Review notes and problem reports and consolidate comments on this area for the final report.</p> <p>Verify that a <i>System or Software Test Report (STR)</i> or its equivalent has been submitted with the segment. Use this or an equivalent document to verify that the segment has been loaded and tested in the COE environment.</p>
4.	<b>Item 5-90</b> [2.1.4, #3, p. 2-23; 10.2 (related information only)]				<p>[All Segments] <b>The Segment has been submitted to and accepted for inclusion in the SSA's on-line library.</b></p> <p>1. This is an optional requirement depending on licensing requirements and results of this evaluation. The Air Force repository can accept any segment type. Check with CM to close this requirement out.</p> <p>2. Segment passes this item if it will be included in the on-line library after acceptance is completed.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

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5.	♦				<p><b>Receive Segment.</b></p> <ol style="list-style-type: none"> <li>1. Inventory all delivered items using Air Force ESC/DIJ Segment Registration and Delivery Package and Segment Registration data. Materials identified to be delivered should be as agreed at registration time.</li> <li>2. Note any discrepancies. Based on the type of discrepancy found, coordinate with the appropriate point of contact.</li> <li>3. Make assessment of adequacy/completeness of delivered items to proceed with the DII COE compliance evaluation process. If POC coordination does not result in obtaining any missing items in a reasonable amount of time &lt;usually one week&gt;, generate delivery rejection letter.</li> <li>4. Review Appendix B completed by the developer. For each item marked FALSE check to ensure there is a corresponding <b>approved waiver</b>. Mark a “W” under the FALSE column where an approved waiver is on-hand at evaluation time.</li> </ol>
6.	<b>Item 5-87</b> [no reference]				<p>[All Segments] <b>All required licenses are provided to the SSA with the segment, or negotiations have been made with the SSA to use licenses procured by the SSA.</b></p> <p>Segment passes this item if all required licenses are provided with the segment prior to start of evaluation.</p>
7.	♦				<p><b>Prepare to Evaluate the SVD.</b></p> <p>The SVD consists of a pre-defined set of documentation and printed scripts from the segment. These are reviewed for completeness and will be used to answer many of the questions in the following sections. If any portions of the SVD are not provided (e.g., the printout of the Requires and SegDescrip files) then coordination with the developer/CM is necessary to determine if any constraints exist that may affect loading the segment. The COE Tester should also <b>obtain a copy of the test report for the previous version of the segment</b> and any Global Software Problem Reports (GSPRs) on the Application/Segment (if previously tested). – Effort must be exerted to ensure these items are indeed corrected with this application/segment submittal.</p>
8.	<b>Item 5-83</b> [no reference]				<p>[All Segments] <b>The segment prefix being used is the prefix assigned at segment registration time.</b></p> <p>Segment passes this item if the segment prefix used on the documentation, executables is the same as on the CM registration information.</p>
9.	<b>Item 5-44</b> [6.1.2, p. 6-5; 5.7, p. 5-143]				<p>[Abbreviated Segments only] <b>If the segment is a COTS product and abbreviated segmentation is used, prior approval has been granted by the Chief Engineer.</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

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					Segment passes this item as a blanket waiver has been approved for all abbreviated segments.
10.	<b>Item 6-32</b> [5.4, p. 5-27]				<p>[COTS Segments] <b>All COTS products are packaged as separate, individual COTS segments.</b></p> <ol style="list-style-type: none"> <li>1. Check the documentation for COTS and COTS products included in the delivery -- and ensure that the packaging is in segment format per reference. For abbreviated commercial software suites packaged together can have one COTS segment.</li> <li>2. COTS products that are delivered as part of the application must be delivered in segment format &lt;as Abbreviated Segmented COTS Segments or as valid COTS Segments. Software segments that require a COTS product for operation must deliver the COTS product as a separate segment (in addition to the software segment) and the COTS segment must still meet all criteria for a segment.</li> <li>3. Segment passes this item if all COTS products are packaged as separate, individual COTS segments.</li> </ol>
11.	<b>Item 4-2</b> [3.2.1.1 p. 3-12]				<p>[All Segments] <b>Documentation is submitted with the segment that clearly identifies releasability restrictions.</b></p> <ol style="list-style-type: none"> <li>1. Check delivery letter. Segment Registration Information should be in the delivery letter.</li> <li>2. The following documentation may contain information as defined in the <i>DII COE Developer Documentation Requirements</i> document: <ul style="list-style-type: none"> <li>SVD (Inventory sections) Installation Procedures (Important Considerations section)</li> <li>Software Test Plan (Planned Tests sections) User's Manual (Software Inventory, Security and Privacy, Access Control sections)</li> <li>Software Test Description (Test Preparation, Test Description sections)</li> </ul> </li> <li>3. Segment passes item if the documentation states releasability restrictions or there are no restrictions.</li> </ol>
12.	<b>Item 5-93</b> [5.2.1 p. 5-16]				<p>[All Segments] <b>The segment is submitted with a set of integration notes (IntgNotes) as described in Chapter 5.</b></p> <ol style="list-style-type: none"> <li>1. <b>Only if it applies see note.</b> Check Documentation including SVD appendices for a IntgNotes Printout with proper contents per reference.</li> <li>2. Segment passes this item if there is a set of integration notes for the segment.</li> </ol> <p>Note: Note: Integration notes contain any special instructions that need to be communicated to the integrator for proper segment integration and installation.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

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13.	<b>Item 5-86</b> [no reference]				<p>[All Segments] <b>All COTS products required, including the required version, are documented in the <i>Software Version Description Document</i> or its equivalent.</b></p> <p>Segment passes this item if required COTS products are identified in the SVD.</p>
14.	<b>Item 5-89</b> [no reference]				<p>[All Segments] <b>The <i>Software Version Description Document</i>, or its equivalent, has been submitted with the segment to the SSA.</b></p> <p>Segment passes this item if an SVD or equivalent is available at start of the evaluation.</p>
15.	<b>Item 3-15</b> [no reference]				<p>[All Segments] <b>The application does not require any source code modifications to COTS products, except as authorized by the DII COE Chief Engineer.</b></p> <ol style="list-style-type: none"> <li>1. Look at documentation, intgnotes and release notes. Find any approvals.</li> <li>2. Segment passes this item if no unauthorized source code modifications have been made to and COTS product in the segment.</li> </ol>
16.	<b>Item 1-8</b> [Appendix A, A1-3; 6.0, p. 6-1; 6.1.2, bullet 5, p.6-6]				<p>[COE Component Segment Only] (NT) <b>The Windows NT operating system is one of the commercial licensed versions as used by the COE, or higher.</b></p> <p>Check SVD and attachments. Review findings with Appendix A. Segment passes step if version is as used by COE or higher.</p>
17.	<b>Item 5-85</b> [Appendix A (related information only)]				<p>[All Segments] <b>The platforms and operating systems on which the segment can run have been identified and documented in a <i>Software Version Description Document</i>, or its equivalent.</b></p> <ol style="list-style-type: none"> <li>1. Check SVD Documentation. Also, check appendices for a SegInfo Printout. Look for \$CPU and \$OPSYS keywords under the [Hardware] segment descriptor in the SegInfo printout. Platforms and operating systems should be identified per reference.</li> <li>2. Segment passes the item if the platform(s) and operating system(s) are identified in the SVD or equivalent document.</li> </ol>
18.	<b>Item 6-9</b> [no reference]				<p>[All Segments] <b>The segment is available on all COE-supported platforms unless otherwise approved by the Chief Engineer.</b></p> <ol style="list-style-type: none"> <li>1. Refer to results of item 6-9 above.</li> <li>2. Segment passes this item if the segment is available on the Solaris, HP and NT environment or an approved waiver is available.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

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19.	<b>Item 7-10</b> [9.1.3, p. 9-4]				[All Segments except COTS and abbreviated-segmented COTS segments] <b>If written in C, the segment is ANSI-C compliant.</b>  Segment passes item if developer certifies on completed I&RTS Appendix B that this item is TRUE.
20.	<b>Item 7-11</b> [9.1.2, p. 9-4]				[All Segments except COTS and abbreviated-segmented COTS segments] <b>If written in Ada, the segment is Ada-95-compliant unless otherwise authorized by the Chief Engineer.</b>  Segment passes item if developer certifies on completed I&RTS Appendix B that this item is TRUE.
21.	<b>Item 6-53</b> [3.2.1.2, Item 10, p.3-16; 9.1.1, p. 9-3]				[All Segments that contain an exposed API or set of APIs] <b>The segment includes an API test suite that exhaustively exercises all APIs provided by the segment.</b>  1. The test suite (data sets, etc.) Should be part of the delivered documentation and software provided to CM. It should include test cases for executing the API tests based on the provided test data. 2. Segment passes this item if the API test suite is oh-hand at the start of this evaluation and examination shows test cases are available for each interface.
22.	<b>Item 7-6</b> [5.8.1, p. 5-144]				[All Segments] <b>Unclassified sample data is provided with the segment to allow for unclassified testing and training.</b>  Segment fails step if unclassified data required for testing is not provided at the start of this evaluation.  Note: The intent is if data is required to operate the segment or to exercise an API set, that the sample data is unclassified. This ensures there is no classified data is kept in the test lab. So the unclassified data for testing provided to DISA by the developer must be separately packaged (separate diskette/tape) and appropriately marked as unclassified.
23.	<b>Item 6-60</b> [5.9.1, p. 5-147]				[All Segments] <b>If the segment contains a large static database, it is provided as a separate data segment.</b>  Segment fails this item if static database files that are over 1 MB in size or are managed by an external RDBMS engine like JET or Oracle, are packaged inside the segment.
24.	<b>Item 7-23</b> [4.2.8, p.4-21]				[Data and Database Segments only] <b>Database fragmentation schemas are contained in separate segments.</b>  1. This is -- if a database is made up of several fragment schemas to be loaded at different site/data servers -- the sum of all fragments equals the total database but only a part of the data/database is resident at any single site (true distributed data) -- then

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>each fragment database should/must be delivered as a separate segment -- not all imbedded in a single segment.</p> <ol style="list-style-type: none"> <li>Check the documentation delivered with the segment(s) to ensure this requirement is met.</li> <li>Segment passes this item if no database fragmentation schemas are contained in the segment.</li> </ol>
25.	<p><b>Item 6-26</b> [Appendix A: A-1.1, p. A-2; Appendix F]</p>				<p>[All Segments] <b>The segment uses only the DBMS provided by the COE, or has an approved migration plan.</b></p> <ol style="list-style-type: none"> <li>Check documentation. If segment does not integrate with or is not a DBMS COE Component segment, then this step is N/A.</li> <li>Determine if DBMS used by segment is indeed a COE Component Segment. Examine RDBMS segment submitted with segment under evaluation. DBMS should be identified in documentation and/or SegInfo [Requires] descriptor as a required COE Component segment.</li> <li>Segment passes this item if DBMS used is a COE Component segment.</li> </ol>
26.	<p><b>Item 6-2</b> [5.8.1 p. 5-144]</p>				<p>[Aggregate Segments only] <b>Classified segments are packaged separately from unclassified segments, or from segments which are classified at a lower level. (It is permissible to create aggregate segments that contain segments at different classification levels, but the aggregate must be labeled with the highest classification level of any segment within the aggregate.)</b></p> <ol style="list-style-type: none"> <li>Examine documentation to determine if segments are provided/ required for data of multiple classification levels.</li> <li>Review security classification guide for mission application segment, provided with delivery package. Examine it for data types which are classified at CONFIDENTIAL, SECRET and TOP SECRET and have caveats such as NOFORN or WNINTEL.</li> <li>If multiple classification levels exist with in the aggregate child and parent segments, that the highest level classification is on all the segments packaging. If it does, segment fails this item.</li> </ol>
27.	<p><b>Item 6-1</b> [5.8.1, p. 5-144]</p>				<p>[All Segments except Data Segments] <b>If the data for a particular segment contains any classified entries, then all of its data is packaged in a separate data segment and classified accordingly.</b></p> <ol style="list-style-type: none"> <li>The intent is to ensure classified and unclassified data is not packaged together -- classified must be packaged as a separate segment. Check the classification levels and the documentation to satisfy this requirement -- pay special attention to NOFORN classification.</li> <li>Segment passes this item if it contains no classified data.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

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28.	<b>Item 4-3</b> [2.1.4, Item 2, p. 2-18]				<p>[All Segments] <b>All software and data are packaged as segments through either the full or abbreviated segmentation process.</b></p> <ol style="list-style-type: none"> <li>1. Intent is that software/ data be delivered properly segmented per I&amp;RTS and that the COEInstaller can be used to install it.</li> <li>2. Segment passes this item if the software and data are packaged for installation using the COEInstaller and if an abbreviated segment a Logo compliant GUI.</li> </ol>
29.	◆				<p>[All Segments] <b>Prepare to Load Segment</b></p> <p><b>Need an 80x86 or alpha compatible platform with the Windows NT v4 operating system with service pack, COE kernel and COE evaluation tools Developers' Tool Kit and AFCTF Tool Kit.</b> . Segment(s) and hardware the segment under evaluation is dependent on should be on the system or available over the network. Ensure these items contain no corruptions from any previous loading of a segment.</p>
30.	<b>Item 4-14</b> [1.6, Item 5, p.1-16, CMIS database]				<p>[All Segments] <b>The segment uses the same versions, configurations, patches, and file locations as provided by the COE for all components of the COE kernel.</b></p> <ol style="list-style-type: none"> <li>1. Review questionnaire for COE version the segment is base lined on.</li> <li>2. Review media to find all COE Component Segments, which were delivered and identified as being required by the segment to be evaluated.</li> <li>3. Launch COEInstaller and load media into machine. Without installing software on hard drive, determine segment name, version, configuration and patches. Ensure they are consistent with documentation; if not generate a note and contact developer to determine which should be used.</li> <li>4. If any segments to be used are not certified for use, segment fails step.</li> </ol>
31.	◆				<p><b>Obtain a BASELINE Snapshot of the hard drive(s) contents BEFORE loading the segment.</b></p> <ol style="list-style-type: none"> <li>1. Log on as a system administrator with unrestricted privileges.</li> <li>2. From Explorer go to the <b>COE_Eval_Tools</b> subdirectory and double click on <b>ANALYSE.EXE</b>, run a Reference on all the partitions and the registry. Copy the document files to: <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\BASELINE.</b></li> <li>3. From the lower left corner, select Start-Programs-Command Prompt to get a DOS window. <b>MAXIMIZE</b> the DOS window size and type: <b>cd COE_Eval_Tools</b>, then <b>GO_SNAP</b> (to review script documentation &lt;sized to fit in the maximized window&gt;).</li> <li>4. <b>BEFORE EXECUTING SNAPSHOT SCRIPT</b>, write down the Application Name in the field below <b>EXACTLY</b> as you will type it for use in the script: _____ -- You will need to type it <b>EXACTLY</b> like you write it above each time you execute the snapshot script.</li> <li>5. Then, at <b>c:\COE_Eval_Tools&gt;</b> command prompt, type: <b>SNAPSHOT &lt;APPLICATION NAME&gt; ALL BASELINE</b></li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

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					<p>carefully using the GO_SNAP documentation.</p> <p>6. Execute Script. Select OK when prompted to do so. Close the Sysdiff window by clicking the “X” box in the upper right corner. Close the DOS window on completion of the script.</p> <p>7. The SnapShot script <i>with the above parameters</i> will automatically:</p> <ul style="list-style-type: none"> <li>- Generate a new directory path to put snapshot files: <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\BASELINE</b>.</li> <li>- Select View-Refresh if necessary in WindowsNT Explorer to view the newly created directory.</li> <li>- Create a baseline snapshot of the complete hard drive contents.</li> <li>- Copy <b>autoexec.nt</b>, and <b>config.nt</b> files to the directory above.</li> </ul> <p>NOTE: If the integrated Sysdiff application fails and “error = 32”, then this means that certain files are in use. This error is a good indication that segment-supporting operating system services are started that must be stopped before a snapshot can be taken. Go to Start – Settings – Control Panels – Services. Examine started automatic services that are associated with any installed segment. Stop those services and then take the snapshot. Some trial and error may be required to get the snapshot. Expect to see traces of the actions you take to stop services in the snapshot report. Restart computer immediately after taking the snapshot to get the services restarted. Important: DO NOT MAKE ANY AUTOMATIC SERVICES INTO MANUAL SERVICES.</p>
32.	<b>Item 6-33</b> [5.4.1, p. 5-29]				<p>[Only for COTS and Abbreviated Segmented COTS Segments] <b>The PostInstall or PreInstall script ensures that there is enough space in the directories where the COTS product will be installed and uses COEInstError to report an error message if not. This requirement applies to the DEINSTALL script also if it is possible to run out of disk space when DEINSTALL is executed as part of upgrading an installed segment.</b></p> <p>1) Review contents of above descriptors to perform these checks per reference. Find segment descriptor files in directory: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip</p> <p>2) If no discrepancies are found, segment passes item.</p> <p>Note: For abbreviated segments, if Logo compliant the vendor-provided installation software will already achieve both of these tasks and therefore the PostInstall script need not do them as well</p>
33.	<b>Item 5-102</b> [5.4.12, p. 5-54; 5.5, #17, p. 5-59]				<p>[All Segments] <b>The segment does not contain any circular dependencies (e.g., Seg A depends on Seg B, Seg B depends on Seg C, Seg C depends Seg A is not allowed).</b></p> <p>1. Check Requires/Database Descriptor of Segment under test and Requires/Database Descriptor of all referenced Segments -- no references should track back to the test segment (e.g., all reference segments should “dead-end” with no further requires/SegDescrip references).</p> <p>2. Per I&amp;RTS, Child components of an aggregate must <i>not</i> specify dependencies upon one another in the Requires file, even if</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

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					they do indeed have such dependencies. Likewise, the parent segment must <i>not</i> specify a dependency on children within the aggregate. An aggregate of database segments cannot have circular database dependencies among the segments or there will be no valid database creation order. 3. Segment passes item if no circular dependencies are found.
34.	<b>Item 6-20</b> [4.3.1.3, p. 4-23]				[Database Segments only] <b>Database segments do not create user accounts, except for a database services account.</b>  <i>RDBMS only:</i> Check the PostInstall for the database segment and ensure that it does not create a user account (userid) in the local /etc/passwd UNIX file nor does it create a local group in the /etc/group file. 1) Examine the system view for a list of all user accounts. ORACLE: <i>select * from ALL_USERS</i> SYBASE: <i>select * from syslogins</i> 2) Verify that only a database services account has been established. Note: DBA assigns user accounts to roles for database use at each site. This procedure assumes that no such accounts have yet been created.
35.	<b>Item 5-97</b> [5.2.1 pg 5-14; 5.5.1.4, pg. 5-61 ]				[All Segments] <b>If special installation/integration procedures/problems exist, then they are incorporated into the PostInstall (or other) descriptors as appropriate, and documented in the IntgNotes descriptor file.</b>  1) Review IntgNotes for any special installation procedures/problems. 2) Evaluate installation procedures while using them to install the segment. <b>If installation procedures require lengthy periods of operator interaction to configure the segment after it is installed &lt;which might be effectively minimized by making better use of a PostInstall script&gt;, then the segment fails this step.</b> 3) Review results of actual Installation. 4) If documentation is found to be missing or is in error during installation, generate a documentation note.
36.	<b>Item 5-5</b> [2.2.1, pg., 2-38; 5.5.1.1, p. 5-60; 5.5.1.4, p. 5-61; 5.5.1.5, p. 5-61; 5.5.2.12, p. 5-105]			√	[All Segments] <b>If privileged user permissions are required during segment installation or removal (e.g., use of the \$ROOT keyword), prior approval has been granted by the Chief Engineer.</b>  1. \$ROOT and \$KEY descriptors have not been implemented yet. 2. If a privileged user (system administrator account group) is used to execute a PREINSTALL and/or POSTINSTALL script as noted in , then the \$ROOT and approval to use it (use of \$KEY keyword or written approval in documentation) are indeed required. \$ROOT and \$KEY keywords would occur under the [Direct] Segment Descriptor in the SegInfo segment descriptor

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

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					file. 3. If documentation does not address Chief Engineer approval of \$ROOT keyword use, and a privileged user executed PREINSTALL and/or POSTINSTALL script is found to be used OR if approvals are provided and privileged scripts are not found to be used, generate a documentation note.
37.	◆				<p>[All Segments] <b>Install the segment.</b>  <b>Before beginning the Segment Installation Process. Perform the following activities AS YOU GO.</b></p> <ol style="list-style-type: none"> <li>1. If segment is an upgrade to an existing segment load previous version first.</li> <li>2. If an aggregate segment, using documentation, determine order in which to <u>individually</u> evaluate segments. First, individually evaluate those application segments which have no dependencies on other mission application segments. Then, with those evaluation results in hand, individually evaluate the segments which require those you have already evaluated. Then, progressively evaluate those segments with second and third tier dependencies.</li> <li>3. Create a user with no system administrative privileges. Log on as this user and attempt to install segment. If this is possible, make note of it to address a checklist item below.</li> <li>4. Capture all Segment Installation Screens produced WITH Data You Enter.            For documentation of the install, use the screenprint and Word to save all screens (interactive, error messaging, warning, etc.) presented during the installation WITH the data you enter. –You may need that data later in the installation process.            Procedure:                Press the PrintScreen key.                From the start button, select Programs-Word.                Select Edit the Paste from with in the application.                Save file to c:\Seg_Eval\<b>&lt;APPLICATION NAME&gt;</b>\Screens.doc</li> <li>5. Install the segment to the D: drive (segment drive), follow Segment Installation Documentation “to the letter”.</li> <li>6. First loading all required “other” segments identified in documentation as being necessary to load “this” segment</li> <li>7. Execution of any PREINSTALL and/or POSTINSTALL script required by the procedures. If a PREINSTALL and/or POSTINSTALL script is used, make note below indicating if a privileged user (administrator) account group is used &lt;per segment installation procedure&gt; to execute these scripts.</li> <li>8. Review IntgNotes with the Installation Procedures and ensure they support each other. If there are issues, document each as a NOTE.</li> <li>9. Review ReleaseNotes with the Installation Procedures and ensure they support each other. If there are issues, document each as a NOTE.</li> <li>10. Note completeness/correctness of installation procedures.</li> <li>11. If installation procedures contain ambiguities, generate a NOTE.</li> <li>12. If input data is needed but is unknown, generate a NOTE.</li> <li>13. If installation procedures provide incorrect direction, generate a NOTE.</li> <li>14. If data entered “early” in the installation process is needed “later” with no clear way (by their procedure) to obtain the</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

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					<p>data entered earlier, generate a NOTE.                      15. If you cannot "figure it out," generate a NOTE.</p>
38.	◆				<p><b>After segment installation process is complete perform normal operations with the segment that creates data and/or new files. Obtain information about the installation and operation. Perform the following activities:</b></p> <ol style="list-style-type: none"> <li>1) From Explorer go to the <b>COE_Eval_Tools</b> subdirectory and double click on <b>ANALYSE.EXE</b>, run Evaluate on all the partitions and the registry. View and print all the reports when presented on screen, the files will be saved to the Desktop when closed. Leave the files on the desktop for now.</li> <li>2) Obtain an AFTRLOAD &lt;After Segment Load&gt; Snapshot of hard drive contents.                         <ol style="list-style-type: none"> <li>a) Log on as a system administrator with unrestricted privileges.</li> <li>b) MAXIMIZE the DOS window size and change directory to <b>COE_Eval_Tools</b> and then type: <b>SNAPSHOT &lt;APPLICATION NAME&gt; &lt;SEGMENT PREFIX&gt; AFTRLOAD</b> carefully using the documentation.</li> <li>c) Execute script. Select OK when prompted to do so. Close the Sysdiff window by clicking the "X" box in the upper right corner. Select OK when prompted again to do so. Close the DOS window on completion of the script.</li> <li>d) The SnapShot script with <i>the above parameters</i> will:                                 <ul style="list-style-type: none"> <li>- Generate a new directory path for snapshot files: c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT_PREFIX&gt;\AFTRLOAD. Select View-Fresh if necessary in WindowsNT Explorer to view the newly created directory.</li> <li>- Create a After-Segment-Load snapshot of the complete hard drive contents.</li> <li>- Copy <b>autoexec.bat, config.sys, autoexec.nt, config.nt</b> and <b>AFTRLOADpath.txt</b> files to directory above.</li> <li>- Generate a new directory path to store snapshot evaluation results:  <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData</b></li> <li>- Evaluate the AFTRLOAD snapshots against the BASELINE snapshots and place the following files in above directory:   <ul style="list-style-type: none"> <li>- Hd_delt.txt -- indicates any changes (the delta) to the complete hard drive (additions, modifications, deletions), including the registry, made since the BASELINE snapshot</li> <li>- aebtdelt.txt – indicates any changes (the delta) in the contents of the autoexec.bat file since the BASELINE snapshot</li> <li>- aentdelt.txt – indicates any changes (the delta) in the contents of the autoexec.nt file since the BASELINE snapshot</li> <li>- cfntdelt.txt – indicates any changes (the delta) in the contents of the config.nt file since the BASELINE snapshot</li> <li>- cfsydelt.txt – indicates any changes (the delta) in the contents of the config.sys file since the BASELINE snapshot</li> </ul> </li> </ul> </li> </ol> </li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<ul style="list-style-type: none"> <li>- pathdelt.txt – indicates any changes (the delta) in the system path variable since the BASELINE snapshot</li> <li>- SERVICES_delt.txt – indicates any changes (the delta) in the services since the BASELINE snapshot</li> <li>- ENVI_delt.txt – indicates any changes (the delta) in the system environment variables since the BASELINE snapshot</li> <li>- User_Grp_delt.txt – indicates any changes (the delta) in Users and Groups since the BASELINE snapshot</li> </ul> <p>NOTE: If the integrated Sysdiff application fails and “error = 32”, then this means that certain files are in use. This error is a good indication that segment-supporting operating system services are started that must be stopped before a snapshot can be taken. Go to Start – Settings – Control Panels – Services. Examine started automatic services that are associated with any installed segment. Stop those services and then take the snapshot. Some trial and error may be required to get the snapshot. Expect to see traces of the actions you take to stop services in the snapshot report. Restart computer immediately after taking the snapshot to get the services restarted. Important: DO NOT MAKE ANY AUTOMATIC SERVICES INTO MANUAL SERVICES.</p> <ol style="list-style-type: none"> <li>3) Move the ANALYZER.EXE generated final reports from the Desktop to <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\ AFTRLOAD\ EvalData\</b></li> <li>4) Collect, bind, and place Snapshot Evaluation file printouts in the segment folder for later use in checklist.</li> </ol>
39.	◆				<p>[All Segments] <b>Capture All Segment Installation Output files/logs.</b></p> <ol style="list-style-type: none"> <li>1) COPY any segment (.log, .lis, etc.) files created during installation, (file in \h\COE\data\local\STAT_LOG), TO directory <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD</b></li> <li>2) Print online ReleaseNotes and IntgNotes. Copy to <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD</b> for later reference.</li> </ol>
	◆				<p><b>Verify that ALL logs have no failures.</b></p> <ol style="list-style-type: none"> <li>1. Check all logs created during the install and PostInstall for any errors/warnings that may not have been posted to the screen:</li> <li>2. Review ALL files (.log, .lis, txt, etc.) you placed in directory: <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\ AFTRLOAD\STAT_LOG</b></li> <li>3. Note findings. You will need them in following steps.</li> </ol>
40.	<b>Item 7-9</b> [Appendix C, 2-				<p>[All Segments, except COTS]] <b>(NT) The segment will not install unless being installed by a user with administrative privileges.</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	2.12, p. C-11]				<ol style="list-style-type: none"> <li>1. Refer to findings above when installing segment with account with no admin privileges.</li> <li>2. GOTS abbreviated segments, the commercial installation must also check for admin privileges.</li> <li>3. Segment fails item if any portion can be installed by an account who not a member of the administrators group or domain administrators group.</li> </ol>
41.	<b>Item 2-2</b> [1.6, #9, p. 1-18; 10.1 (related information only), p. 10-3]				<p>[All Segments] <b>(NT) The application can perform under the constraints imposed by the DII COE Secure Windows NT Installation and Configuration Guide. Exceptions have been brought to the Chief Engineer for resolution.</b></p> <ol style="list-style-type: none"> <li>1. As a minimum, the segment should be run in the intended security lockdown intended for the field. Developer must provide the deltas or security configuration tools to configure test system</li> <li>2. Segment passes item if during the exercise of the segments functionality no discrepancies related to access denials are found. If access denials or other errors are found copy the screen to <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EVALDATA\</b> and review the Event Logs for supporting entries, if found copy the log file the same location.</li> </ol>
42.	<b>Item 2-9</b> [No reference]				<p>[All Segments] <b>The ability of the application to execute correctly is independent of the type of LAN (e.g., Class B or Class C) connected to the platform.</b></p> <ol style="list-style-type: none"> <li>1. Item evaluates to true if the native NT TCP/IP protocol suite is used. Examine the Control Panel, Network applet, Protocols on evaluation system only the native MS TCP/IP Protocol is installed, if no other protocol is installed the segment uses the native protocol suite.</li> <li>2. If an alternate protocol is installed change the IP address of the evaluation system from a class C to class B address and mask, restart and test segments functionality that utilizes the TCP/IP suite.</li> <li>3. Segment passes item if no discrepancies are found in the above steps.</li> </ol>
43.	<b>Level 2-12</b> [6.7.11, p. 6-36]				<p><b>(NT) The application uses network byte order for data external to the PC.</b></p> <ol style="list-style-type: none"> <li>1. Check documentation, if segment has built in functionality for saving files on UNIX systems then save a file to a remote UNIX NFS mounted drive. Open file using UNIX based segment.</li> <li>2. Segment passes item if UNIX based segment can read the file with no discrepancies noted.</li> </ol>
44.	<b>Item 4-5</b> 2.1.4, Items 5 and 7, p. 2-23; 5.5.1.1, p. 5-60; 6.2, p.6-10 (all references provide only related information)]				<p>[All Segments except Abbreviated Segmented Segments] <b>For full segmentation segments, the segment can be installed and removed completely through the COE installation tools. If the segment is a “permanent” segment (i.e., it has no DEINSTALL file. See Chapter 5) and is not a candidate for removal, the segment has been tested to ensure that upgrades successfully preserve data files that must be retained during upgrades.</b></p> <p>Segment passes this part of the item if it completely installs with out error using the COEInstaller, except permanent segments. Findings from this step are used after the segment is deinstalled.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
45.	<b>Item 6-31</b> [7.1.1.1 pg. 7-2]				<p>[Web attribute segment only] <b>The segment uses the Web server provided by the COE rather than bringing along its own Web server.</b></p> <ol style="list-style-type: none"> <li>1. Review the segment documentation to identify Web-based applications. In particular, identify any segments whose \$TYPE keyword entry line includes the attribute WEB APP in the SegName descriptor file. If segment installs on the web server the \$Requires in the SegInfo points to Netscape or Windows NT segment.</li> <li>2. Segment passes this item if the COE-provided Netscape or IIS servers is required.</li> </ol>
46.	<b>Item 4-9</b> [4.3.4.1, p. 4-28; 5.6.3.1, Item 2, p. 5-138]				<p>[Database Segments only] <b>Database owners do not use system storage areas during database creation.</b></p> <ol style="list-style-type: none"> <li>1. Make sure mission application database tables are not created in the &lt;ORACLE SYSTEM TABLE SPACE&gt; OR &lt;SYBASE MASTER DATABASE&gt;, ETC. <ul style="list-style-type: none"> <li>Oracle: 1) Locate the directory containing the SQL scripts.</li> <li>2) Examine SQL Data Definition Language <i>create database</i> statements to determine the filename (within the segment) established for the database (e.g., dbs.ora).</li> <li>Sybase: 1) Locate the directory containing the SQL scripts.</li> <li>2) Examine SQL <i>create database</i> statements to determine the device id for the system databases (master, model, tempdb and, optionally, sybssystemprocs databases), and verify that it is different from the device id for the segment <i>create database</i> statement.</li> </ul> </li> <li>2. Segment passes this item if system storage area is not used during database creation.</li> </ol>
47.	<b>Item 4-10</b> [5.6.3.1, Items 1, 2, and 3, p. 5-138]				<p>[Database Segments only] <b>The segment does not modify the core database storage areas, create objects in system storage areas, or create objects in public storage areas (e.g., create rollback table space).</b></p> <ol style="list-style-type: none"> <li>1. Locate the directory containing the SQL scripts. (h/&lt;segment_name&gt;/bin or h/&lt;segment_name&gt;/install)</li> <li>2. Examine SQL Data Definition Language <i>storage</i> clause in all <i>alter</i> and <i>create</i> statements for filenames to verify that a separate file is established for tablespaces that is different from that used for the database system tablespace.</li> <li>3. Segment passes this item if the word "SYSTEM" is not used when creating the database.</li> </ol>
48.	<b>Item 6-57</b> [9.1.1, p. 9-2 (related				<p>[All Segments] <b>If the segment uses another segment's public APIs and they are implemented as shared libraries, the segment is submitted linked with the shared libraries and not the static libraries.</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	information only)]				<ol style="list-style-type: none"> <li>1. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt review the for \lib or \include directories. If either directoy is installed on the system delete the two directories with Explorer and run the segment. execute the application functionality provided by the segment, and watch for error messages or other indications that the segment is linked to the static libraries rather than to the shared libraries.</li> <li>2. Segment passes this item if no errors related to missing libraries shows up during the exercise of the segment.</li> </ol>
49.	<b>Item 5-9</b> [5.11.5, p. 5-161; 5.5.2.3, p. 5-70				<p>[All Segments] <b>The segment does not create user login accounts. (This does not apply to the account group segments that are part of the COE kernel, but it <i>does</i> apply to all other account group segments. This also does not restrict segments from creating “non-login accounts” for use in establishing a segment group id.)</b></p> <ol style="list-style-type: none"> <li>1. Check c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EVALDATA\USER_GRP_delt.txt if file has any lines in it showing a change then open the User_Group.txt file to show what group the account was created in.</li> <li>2. Segment passes this item if no login account was created during the segments installation.</li> </ol>
50.	<b>Item 5-10</b> [5.2.2, p. 5-18; 2.2.2, p. 2-38 (related information only)]	■			<p>[All Segments] <b>The segment can operate in an environment where user accounts are created and deleted at any time by the site administrator responsible for managing user accounts. The segment accounts for this and creates and initializes operator preferences the first time the segment is activated after a new account is created.</b></p> <ol style="list-style-type: none"> <li>1. Item is N/A if segment does not have user preference settings or state maintenance functionality.</li> <li>2. Add user account to Domain and/or Workstation depending on segment’s operational requirements. Assign segment icon to new user account and assign to any required roles/group.</li> <li>3. Logon as user and ensure no impact on segments functionality. If segment maintains user preferences/state information a preferences screen to accept or change settings <i>or</i> a notice that preferences are set at default and instructions on where and what menu/screen to go to for changing preferences.</li> <li>4. Log off new user account and log on as administrator, start segment and see if administrator’s preferences were changed by new user account.</li> <li>5. Review item 5-9, if user account created during the installation process delete account. Start up segment and check primary functions.</li> <li>6. Segment passes item if no discrepancies are found in segments operations.</li> </ol>
51.	<b>Item 6-35</b> [5.10.8, p. 5-159]	■ ■ ■ ■			<p>[All Segments] <b>If the segment creates temporary files, they are deleted when no longer needed.</b></p> <ol style="list-style-type: none"> <li>1) Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt</li> <li>2) From the Notepad application window upper left pull-down menus, select Search-Find...</li> <li>3) Type “Temp” and begin search. Hit F3 key to perform follow-on searches.</li> <li>4) If there are any files found located in the C:\Temp directory after installation and normal shut down of the segment, segment fails item.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
		      			<p>Note: Segments will normally create temp files under the directory <i>/temp</i>. These are intended for use by the segment and/or the user reference -- such as .log, .lst, .lis, .rpt files -- that are there to provide information to the user. These must be deleted when the segment is de-installed (as a minimum) and, unless they are intentionally left by the segment for use by the user, should be deleted when the segment software is finished with them. The User's Manual may provide information about files left in <i>/temp</i> for the user -- otherwise a subjective look at these files must be done to determine if they are needed/usable (<i>if not then they should be deleted by the software and not left in /temp</i>).</p>
52.	<p><b>Item 6-7</b>                      [6.5.7, p. 6-26;                      6.5.8, p. 6-27;                      6.5.9, p. 6-27]</p>				<p>[All Segments] (NT) <b>If the segment creates groups, the groups follow the naming conventions in Chapter 6.</b></p> <p>1. Check c:\Seg_Eval\<application for="" global="" groups.<="" name&gt;\&lt;segment="" new="" p="" prefix&gt;\aftrload\evaldata\user_grp_delt.txt=""> <p>2. Segment passes this item if new Global group names start with below list:</p> <p><b>Abbreviation                      Service/Agency</b></p> <p>AF                      US Air Force</p> <p>AR                      US Army</p> <p>CC                      US Coast Guard</p> <p>DL                      Defense Logistics Agency (DLA)</p> <p>JO                      Joint Organization</p> <p>MA                      US Marine Corps</p> </application></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>NA US Navy</p> <p>NI National Imagery Management Agency (NIMA)</p>
53.	<p><b>Item 5-25</b> [5.6.3.1, #8, p. 5-139; 4.3.1.2, p. 4-22]</p>				<p>[Database Segments only] <b>The segment installation revokes the owner account's DBMS login privilege upon successful completion of database installation so that no owner accounts can be used to connect to the database.</b></p> <ol style="list-style-type: none"> <li>1. Verify Database structure, dependency, and setup.</li> <li>2. Segment passes this item if all DBMS owner accounts login privilege is revoked at the end of the installation.</li> </ol> <p>NOTE: The intent is to ensure that the userid/owner of the application database tables has had the DBA privileges removed as the last step of activities in the PostInstall. Check the PostInstall script to ensure it performs a Arevoke dba from@ the userid that accomplished the install. The actual Arevoke@ may be buried in a .sql script -- and not be visible in the printed materials or PostInstall. This check may require reviewing (vi/NTnotepad) the last sql run by the PostInstall to find a revoke statement. Finally, if all else fails, go into sql and check the status of the userid that owns the application tables -- to determine if it still has DBA granted. In sqlplus: select * from user_role_privs; ensure that <u>DBA is not listed</u> as a privilege.</p>
54.	<p><b>Item 5-29</b> [4.3.1.2, p. 4-22; 5.6.3.1, p. 5-139]</p>				<p>[Database Segments only] <b>The segment installation requires the owner account password to be changed upon completion.</b></p> <ol style="list-style-type: none"> <li>1. The PostInstall should prompt the installer to provide a new password for the DBAdmin account during the installation: Note during the installation process if the prompt occurs. Check the PostInstall script. If the prompt is not imbedded in an executable, then the script should include a prompt call for a new password to the DBAdmin account.</li> <li>2. Segment passes this item if the owner account password is changed during the segments installation.</li> </ol>
55.	<p><b>Item 5-31</b> [5.6.3.1, p. 5-138; 5.4.5, p. 5-44]</p>				<p>[Database Segments Only] <b>The segment does not assume any particular disk configuration when creating data files.</b></p> <ol style="list-style-type: none"> <li>1. Review the segment documentation to verify that a particular disk configuration is not assumed when creating data files.</li> <li>2. Search the database install scripts used for storage allocation to ensure that no particular disk configuration is assumed.</li> </ol> <p>ORACLE: Find: create tablespace</p> <p>SYBASE:</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p><i>Find: create database</i></p> <p>The Segment creates all data files in the DBS_files subdirectory. The database segment must place the .dbf files under the directory Data Drive:\&lt;segment_name&gt;\DBS_files and created using the DBMS vendors utilities to be loaded correctly in the DB instance. Check the directory/file tree printout from the Analyzer final reports to ensure correct loading of the data files.</p> <p>3. Segment passes this item if the there are no drive letters hard coded into the database create scripts.</p>
56.	<b>Item 5-95</b> [no reference]				<p>[All Segments] <b>Segment installation has been tested through the same installation tools used by site operators. (TestInstall alone does <i>not</i> satisfy this requirement. The COEInstaller tool must be used to load and remove the segment.)</b></p> <p>The intent is to ensure that a successful installation using the COEInstaller and accomplished by “site operators” has been accomplished. Examine COEInstaller log file for errors. Segment passes this part of the item if it successfully installs the complete full segment or abbreviated segment using the COEInstaller.</p>
57.	<b>Item 6-59</b> [No reference]				<p>[All Segments] <b>The segment has been tested to ensure that it successfully installs over and replaces any previous version of the segment.</b></p> <p>1. The intent of this question is to ensure that if an updated (newer version) segment is delivered, and the previous segment version did not have a deinstall, that the updated version segment will install over the old one correctly. (Note: this does not apply to “patch” segments).</p> <p>2. Segment passes this item if the new version installs over the old version. Replacing the segment descriptor files, registry entries, Start button icon and segment files with newer versions. Removing of the previous version using the COEInstaller and with the Add/Remove Programs applet for abbreviated segments is an acceptable up grade process.</p>
58.	<b>Item 6-17</b> [6.1; p. 6-2]				<p>[All Segments, except segments built using FULL segmentation process] <b>(NT) The segment is compliant with the <i>Designed for Microsoft Windows NT and Windows 98 Logo Handbook for Software Applications</i>.</b></p> <p>1. No evaluation is required if the segment has a Logo compliance form from Veritest Inc. or Microsoft Logo.</p> <p>2. If no Logo verification is available perform the following steps from <i>Designed for Microsoft Windows NT and Windows 98 Logo Handbook for Software Applications, version 3.0D</i>, dated 4 February 1999 to evaluate Logo compliance. The steps designated below are the remaining Logo requirements not evaluated under any other Appendix B item. Logo recommendations are requirements for segments.</p> <p>3. Segment passes this item if all the following sub-steps evaluate as TRUE or N/A.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
59.	<b>Item 6-17-1</b> [6.1.1, p.14]				<p><b>The application must support multitasking. It must support either Alt-Tab to switch focus between applications or Ctrl-Esc to switch focus from full screen to the desktop.</b></p> <p>1. While segment is open full screen, use Ctrl_Esc or the Windows key and then using the Programs menu open Notepad and then use Alt-Tab to change the focus from Notepad back to the segment.</p> <p>2. Segment passes item if no discrepancies are noted while using Alt-Tab or Ctrl-Esc to change focus between Notepad and the segment.</p>
60.	<b>Item 6-17-2</b> [6.2.1. User Experience, p 15]				<p><b>The product must have an installation program with a graphical Setup program that executes in a 32-bit Microsoft Windows operating system. The installer must either lead the user through the process in a user attended mode, (not just instruct the user to copy or decompress files) or provide a facility for a 'silent' or unattended install requiring no user input. Preferably, (though not required) the application will provide both options.</b></p> <p>Segment passes this item if no discrepancy from the above sub-steps is noted during the segments installation.</p>
61.	<b>Item 6-17-3</b> [6.2.1. User Experience, p 15]				<p><b>The installer must automatically detect the version of Microsoft Windows NT 4.0 and/or Windows 98 running and install the correct version of your product automatically. This must be a seamless experience for the user.</b></p> <p>Segment passes item if a Windows 95/98 version is available that is different then the NT version and the segment detects NT and installs only the NT version.</p>
62.	<b>Item 6-17-4</b> [6.2.1. User Experience, p 16]				<p><b>By default, your application must install into an appropriate subdirectory under the program files directory. This is typically the C:\Program Files directory, but not always. Therefore, do NOT hardcode this path. The preferred method to locate the actual path is to pass CSIDL_PROGRAM_FILES to the SHGetFolderPath API (see note below). Other APIs can also be used, or you can query the following registry key: HKLM\software\Microsoft\Windows\CurrentVersion\ProgramFilesDir. SHGetFolderPath behaves consistently across Windows 95, Windows 98, Windows NT 4, and Windows 2000 and is exported from SHFOLDER.DLL. SHFOLDER.DLL is a relatively new DLL that ships in Windows 2000 as well as Windows NT 4 Service Pack 4, Internet Explorer 5, and Windows 98 Service Pack 1. SHFOLDER.DLL is a redistributable component that contains support for CSIDL_PERSONAL as well as many other special folders. Software vendors are encouraged to use and redistribute this component as much as possible.</b></p> <p>Segment passes this item if it defaults installation of the segments root directory under the location listed at: HKLM\software\Microsoft\Windows\CurrentVersion\ProgramFilesDir.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
63.	<b>Item 6-17-5</b> [6.2.1. User Experience, p 16]				<p><b>The application's installer must not install application DLLs or executables under the system root.</b></p> <p>Segment passes this item if no DLLs or executables are noted on the ANALYZE.EXE final report, as new files under the system root (%SYSTEMDRIVE%).</p>
64.	<b>Item 6-17-6</b> [6.2.1. User Experience, p 16]				<p><b>The installer must check before starting any operation to ensure that it can complete that operation. The following are the requirements based on this principle.</b></p> <ul style="list-style-type: none"> <li>• <b>Installers must fail gracefully in the case where a system component cannot be replaced because file system security prevents an existing file from being overwritten. Installers that need to overwrite system files, for example, should check up-front if the current user is a member of the administrators local group. This will avoid confusion later by preventing the user from getting file copy errors from which there is no recovery.</b></li> <li>• <b>Applications must be tested on Windows NT 4.0 under non-administrator accounts. An application must run under a user account but that user must not be able to change the application setup configuration.</b></li> <li>• <b>When installing the application, the installer must check for the user privilege level. If the user is not an administrator and the application will work but with limited functionality, the installer must warn the user that only limited functionality will be available since they do not have admin privileges, and the installer must allow them to discontinue the installation. This may be accomplished by using the Sample Code below or the KB article PSS ID# Q118626.</b></li> </ul> <p><b>Sample Code:</b></p> <pre> //-----// // // IsAdmin() - tests to see if the current user is an admin // //-----//  BOOL IsAdmin() {     SC_HANDLE hSC;      //     // Try an Admin Privileged API - if it works return     // TRUE - else FALSE     //     hSC = OpenSCManager(         NULL,         NULL,         GENERIC_READ   GENERIC_WRITE   GENERIC_EXECUTE     );      if( hSC == NULL ) {         return FALSE;     } </pre>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<pre>CloseServiceHandle( hSC ); return TRUE; }</pre> <p>Segment passes this item if no discrepancy from the above sub-steps is noted.</p>
65.	<b>Item 5-105</b> [6.7.6, p. 6-34]				<p>[All Segments] (NT) If the segment creates a new file extension, the extension has been registered with the cognizant Chief Engineer.</p> <ol style="list-style-type: none"> <li>1. Check Documentation and registration information.</li> <li>2. Open file c:\Seg_Eval\<application _____.<="" evaluation="" extensions="" for="" in="" li="" make="" name&gt;\&lt;segment="" note="" of="" prefix&gt;\aftrload\evaldata\hd_delt.txt="" use=""> <li>3. Segment passes this item if the segment created file extensions are the same as contained in the CM registration information.</li> </application></li></ol>
66.	<b>Item 6-17-7</b> [6.2.2. Using the Registry, p 18]				<p><b>Native data file types (if applicable) must be registered as follows:</b>  <b>[HKEY_CLASSES_ROOT]</b>  <b>.(file type extension)</b>  <b>(Default) = REG_SZ:FileTypeID</b></p> <p><b>See the "Windows Interface Guidelines for Software Design," chapter 10 (available from MS Press), for further details on registering file types and application data.</b></p> <ol style="list-style-type: none"> <li>1. Review item 5-105 at step 65.</li> <li>2. Review ANALYZER.EXE final report for the registry for entries under <b>HKEY_CLASSES_ROOT</b>.</li> <li>3. Review ANALYZER.EXE final report for each drive, look at new files and their extensions.</li> <li>4. Segment passes item if each registered file type has a matching <b>HKEY_CLASSES_ROOT</b> file type extension and matching file type (ApplicationIdentifier) entries.</li> </ol>
67.	<b>Item 6-17-8</b> [6.2.2. Using the Registry, p 18]				<p><b>Core components must not be refcounted in the registry by application installers. Please see <a href="http://www.veritest.com/ftp/core.htm">http://www.veritest.com/ftp/core.htm</a> for the most up-to-date and complete list of Windows 98 and Windows NT 4.0 core components</b></p> <p>Segment passes this item if no Core components show up on the ANALYZER.EXE final report for the registry as being ref counted in the registry.</p> <p>Note: Core components are the files listed in the Corelist.txt file provided by Microsoft.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
68.	<b>Item 6-17-9</b> [6.2.3. System & Shared components, p 20]				<p><b>Applications must not overwrite core components with older versions of the components. The vendor must check <a href="http://msdn.microsoft.com/developer/winlogo">http://msdn.microsoft.com/developer/winlogo</a> for the most up-to-date and complete list of Windows 98 and Windows NT 4.0 core components.</b></p> <p>Segment passes this item if no discrepancy from the above sub-steps is noted.</p>
69.	<b>Item 6-17-10</b> [6.2.3. System & Shared components, p 20]				<p><b>Core components must <i>not</i> be recounted in the registry by application installers. Please see <a href="http://www.veritest.com/ftp/core.htm">http://www.veritest.com/ftp/core.htm</a> for the most up-to-date and complete list of Windows 98 and Windows NT 4.0 core components.</b></p> <ol style="list-style-type: none"> <li>1. Review the ANALYZER.EXE final report for the registry under Section 1 for Core shared DLLs, as being recounted during the segments installation.</li> <li>2. Segment passes this item if no Core components show up on the ANALYZER.EXE final report for the registry as being recounted by the segments installation.</li> </ol>
70.	<b>Item 6-17-11</b> [6.3.1. User Experience - Uninstall, p 23]				<p><b>The product must provide a fully automated uninstaller that removes the program files, folders, and Registry entries for the 32-bit Microsoft Windows 98 and Windows NT 4.0 operating systems. The uninstaller must be properly registered and must appear under Add/Remove Programs in the Control Panel. The method for this registration is:</b></p> <p><b>[HKEY_LOCAL_MACHINE]\SOFTWARE\Microsoft\Windows\Current Version\Uninstall\YourProductName</b>  <b>DisplayName=REG_SZ:&lt;your product name and version number&gt;</b>  <b>UninstallString=REG_SZ: c:\program files\myapp\uninstll.dll</b></p> <p>Segment passes this item if the automated uninstaller for the segment appears under the Add/Remove Programs applet in the Control Panel.</p>
71.	<b>Item 6-17-12</b>				<b>See step 295 for item 6-17-12</b>
72.	<b>Item 6-17-13</b> [6.3.1. User Experience - Uninstall, p 23]				<p><b>The uninstaller must remove itself.</b></p> <p>Segment passes this item if no uninstalled files are left on the system after the uninstallation is completed.</p>
73.	<b>Item 6-17-14</b> [6.3.2. Registry, System & Shared				<p><b>The uninstaller must remove all Registry entries (with the exception of keys that might be shared by other programs).</b></p> <ol style="list-style-type: none"> <li>1. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\c-report1.doc. Open</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	components – Uninstall, p24]				same corresponding file <b>c-report2.doc</b> on the desktop after uninstallation of the segment. Compare new registry entries or + ref counts made in first report have a corresponding removal or – ref count on the second report. 2. Segment passes this item if no discrepancy from the above sub-steps is noted.
74.	<b>Item 6-17-15</b> [6.3.2. Registry, System & Shared components – Uninstall, p24]				<b>The uninstaller must accurately decrement the count on all components your application uses that are installed as shared components.</b> See item 6-17-15 at step 296.
75.	<b>Item 6-17-16</b> [6.3.2. Registry, System & Shared components – Uninstall, p24]				<b>The uninstaller must not decrement or remove any core component, in particular Microsoft Foundation Class Library (MFC) DLLs, as well as ODBC &amp; DAO DLLs. Please see <a href="http://msdn.microsoft.com/developer/winlogo">http://msdn.microsoft.com/developer/winlogo</a> for the most up-to-date and complete listing of all Windows NT 4.0 and Windows 98 core components. The core component list is updated regularly. It is the vendor's responsibility to check the web for the most up to date list.</b>  1. Open file c:\Seg_Eval\<APPLICATION NAME>\<SEGMENT PREFIX>\AFTRLOAD\EvalData\c-report1.doc. Open same corresponding file <b>c-report2.doc</b> on the desktop after uninstallation of the segment. Compare for deleted or decrement in the registry for ODBC or DAO DLLs on the second report. 2. Segment passes this item if no discrepancy from the above sub-steps is noted.
76.	<b>Item 6-17-17</b> [6.5. Support for the Internet, p 27]				<b>Authors of ActiveX™ Controls must digitally sign their controls, as specified on the SiteBuilder Network. Controls should also be marked safe for scripting and safe for initialization with persistent data as appropriate. For more information, see the Sitebuilder Network Workshop area at <a href="http://www.microsoft.com/workshop/components/default.asp">http://www.microsoft.com/workshop/components/default.asp</a></b>  1. Browser on evaluation is set for medium security. Each Control downloaded should have a corresponding screen open up and ask to load the Control. 2. Segment passes this item if all Controls have a corresponding authorization screen.
77.	<b>Item 6-17-18</b> [6.6. Support for OLE/COM, p 28]				<b>The application must be an OLE container or object server. Note that although an application can be both a server and a container, it does not have to be.</b>  1. If an OLE container, go to the Edit/Object menu option and insert a Word document. 2. If an OLE server, go to the Edit/Object menu option in a blank Word document and insert a segments object. 3. Segment passes this item if an object can be successfully step 1 or step 2 above.

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					Note: If your product is a non-file-based application, the requirements to support OLE and UNC pathnames do not apply. A direct example of this might be a utility, multimedia reference title, a game, or applications like Terminal and Clock, which for the most part do not save files in any way and, if they do, it's done as a facility for saving user profiles.
78.	<b>Item 6-17-19</b> [6.6. Support for OLE/COM Object Server requirements: , p 29]				<p><b>The user must be able to drag the object to any container, including other internal documents, the desktop, or documents in another OLE-supporting application.</b></p> <ol style="list-style-type: none"> <li>1. If an OLE server, refer to results of 6-17-17.</li> <li>2. Grab a segment object and drag and drop on the desktop.</li> <li>3. Grab a segment object and drag and drop on another segment object.</li> <li>4. Segment passes this item if no discrepancy from the above sub-steps is noted.</li> </ol>
79.	<b>Item 6-17-20</b> [6.6 Support for OLE/COM Object Server requirements: , p 29]				<p><b>Object servers must pass basic OLE server functionality testing. You can test this by dragging an object created by your product into an application such as Microsoft Word.</b></p> <p>Segment passes this item if an object created by the segment can be dragged into Microsoft Word.</p>
80.	<b>Item 6-17-21</b> [Container requirements, p 29]				<p><b>Your product must pass basic OLE container functionality testing. You can test this by creating an object in any standard OLE server, such as Microsoft Word, and dragging it into your product.</b></p> <p>If an OLE container segment passes this item if a Microsoft Word object can be successfully dragged and dropped into the segments container.</p>
81.	<b>Item 6-17-22</b> [Container requirements, p 29]				<p><b>Containers must provide an Object command on the Insert menu.</b></p> <p>If an OLE container segment passes this item if an Object command is on the Insert menu.</p>
82.	<b>Item 6-17-23</b> [Container requirements, p 29]				<p><b>Containers must implement the IDropTarget and/or IDropSource interfaces for drag-and-drop functionality. This means that the application can accept drops from any IDropSource() or can drag into any IDropTarget(), or both.</b></p> <p>If an OLE container segment passes this item if item 6-17-21 is TRUE.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
83.	<b>Item 6-17-24</b> [6.7. Communications: TAPI 2.x, p 30]				<p><b>Telephony enabled applications Vs. Telephony centric applications</b></p> <p>A telephony enabled application is one capable of simple outbound dialing. If an application performs more than simple outbound dialing, it must implement the full TAPI interface and meet the requirements for telephony centric applications.</p> <p>For more information on writing TAPI applications refer to the Win32 SDK online documentation. For more information on writing TAPI service providers refer to the TAPI Service Provider documentation.</p> <p><b>Required:</b></p> <p>Communications applications that dial, answer, and otherwise control telephone calls on equipment such as modems, ISDN adapters, and telephones must control those calls using the Windows Telephony API (TAPI). This includes online registration of an application. All telephony enabled applications must either use the full TAPI interface or must pass requests to a telephony centric application that does.</p> <p>Segment passes this item if no discrepancy from the above sub-steps is noted.</p>
84.	<b>Item 6-17-25</b> [Telephony enabled applications, p 30]				<p><b>Telephony enabled applications must, at minimum, use the Assisted Telephony interface and pass requests for dialing of calls to a telephony centric application such as Phone Dialer that uses the full TAPI interface for call control. When using the Assisted Telephony interface, the following additional behaviors are recommended.</b></p> <p>Segment passes this item if no discrepancy from the above sub-steps is noted.</p>
85.	<b>Item 6-17-26</b> [Telephony centric applications, p 31]				<p><b>If an application performs more than simple outbound dialing, it must implement the full TAPI interface and meet the requirements for telephony centric applications.</b></p> <p><b>Required:</b></p> <p>Telephony centric applications must use the full Windows Telephony API (TAPI) for telephony-related functions. They must not control telephony-related equipment through proprietary interfaces, drivers, or APIs other than TAPI. In particular, the application must not access a modem by directly opening the serial port using CreateFile ("COMx"), although a "Direct to COMx" mode may be available for accessing non-modem devices.</p> <p>Segment passes this item if no discrepancy from the above sub-steps is noted.</p>
86.	<b>Item 6-17-27</b> [Telephony centric applications, p 31]				<p><b>Telephony centric applications must apply the user's Dialing Properties settings to numbers to be dialed. This can be accomplished by passing the number to the lineTranslateAddress function before the call is placed. This number must be in canonical/international form unless the number to be dialed is an internal extension or the user has otherwise explicitly instructed the application to dial the digits "as is" without applying Dialing Properties (they should pass to lineTranslateAddress so that tone/pulse dialing settings can be applied).</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					Segment passes this item if no discrepancy from the above sub-steps is noted.
87.	<b>Item 6-17-28</b> [Telephony centric applications, p 31]				<p><b>Telephony <i>centric</i> applications must allow the user to select the device to use for calls. The device name can be obtained from the LINEDEVCAPS structure returned by the TAPI lineGetDevCaps function.</b></p> <p>Segment passes this item if no discrepancy from the above sub-steps is noted.</p>
88.	<b>Item 6-17-29</b> [Telephony centric applications, p 31]				<p><b>If a telephony <i>centric</i> application is performing extended control functions on a serial device that is also accessible through TAPI (such as a fax application issuing Class 1 or 2 fax AT commands to a fax modem), it must use LINEBEARERMODE_PASSTHROUGH as defined in TAPI rather than opening the serial device directly, so that the device is properly shared with other TAPI apps when not in use. The application must not open the serial device directly using CreateFile.</b></p> <p>Segment passes this item if no discrepancy from the above sub-steps is noted.</p>
89.	<b>Item 6-17-30</b> [Telephony centric applications, p 31]				<p><b>If the application uses TAPI 2.x functions, it must either explicitly link to TAPI32.dll (by calling GetProcAddress) or be linked to theTAPI32.lib <i>explicit</i> link library so that it will load on Windows 95, Windows 98, and Windows NT 4.0. The application should gracefully degrade its features so that it works as well as possible within the limitations of previous versions of TAPI</b></p> <p>Segment passes this item if no discrepancy from the above sub-steps is noted.</p>
90.	<b>Item 6-17-31</b> [6.8. UNC/LFN Support, p 33]				<p><b>If a file name is fully exposed in Windows Explorer, it must be a fully supported LFN. Applications are allowed to use “labeling schemes” in which a user is saving, for example, a report type or a game state, without actually creating a file that is exposed to the user in Windows Explorer.</b></p> <p>Refer to item 6-15 at step 162 , segment passes this item if the file created in item 6-15 shows the full file name in Explorer. Note: If a level 5 segment perform same procedure as 6-15.</p>
91.	<b>Item 6-17-32</b> [6.8. UNC/LFN Support, p 33]				<p><b>The application must use LFNs for displaying all documents and data files in the shell, in title bars, in dialog boxes and controls, and with icons.</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					Refer to item 6-15 at step 162, segment passes this item if displayed LFN file name shows the full name in dialog boxes, controls, and icons show the full name.  <b>Note:</b> An LFN is 260 characters, which in general includes 3 bytes for "<driveletter>:\", 255 bytes for the filename+extension, and 2 bytes for the null terminator. A UNC path has 2 bytes for "\\\" instead of 3 bytes for "<driveletter>:\", and the path may not include an extension (filetype).
92.	<b>Item 6-17-33</b> [6.8. UNC/LFN Support, p 33]				<b>You must test your LFN functionality on Windows NT FAT, NTFS, and compressed NTFS partitions.</b>  1. Save file from item 6-15 at step 162 on an NTFS partition and a compressed NTFS partion. 2. Segment passes this item if file can be successfully saved and opened again from within the segment.
93.	<b>Item 6-17-34</b> [7.2. Development Tools, p 36]			√	<b>Development tools are products such as languages and compilers that create executable files or interpreted code modules that mimic the action of executable files when used with a run-time engine of the developing application. These products must meet all of the general requirements, with the following additions and exceptions. OLE drag-and-drop support is not required within the tool's design environment. Development tools are temporarily exempt from the requirement to expose the keyboard focus. Vendors should be aware that this exemption will be removed in the next update of the Logo Handbook.</b>  Item is illustrated here to show exceptions to development tools.
94.	<b>Item 6-17-35</b> [7.3. Utilities p, p 37]				<b>Utilities are products such as shell extensions, disk optimizers, antivirus software, certain query engines, and accessibility aids for people with disabilities. They must meet all the general requirements contained in this document with the following additions and exceptions.</b> <b>In order for a utility to receive the Logo, it must include in the same package (box) meaningful functionality for both Windows 98 and Windows NT 4.0 environments.</b> <b>Note: Some products such as disk utilities implement operating-system-specific functionality that cannot be implemented on the other platform. For example, a set of utilities might include a disk defragmenter which may operate on Windows NT but, not on Windows 98. Such products must still include meaningful functionality for the other operating system. Certain components of utilities may be 16-bit, such as those that must use the Exclusive Volume Locking API, soft interrupts, or components that must talk directly to 16-bit drivers. The user interface and other components of these applications must be 32-bit and use the Windows 98 thinking mechanism to access these 16-bit components.</b> <b>Products that use the Exclusive Volume Locking API to access the 8.3 aliases directly and manipulate them, such as disk optimizers, file utilities, and antivirus software, must be tested extensively to ensure that these products function properly and do not damage the file allocation table (FAT) or the LFN structure.</b>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					Segment passes this item if no discrepancy from the above sub-steps is noted.
95.	<b>Item 6-17-36</b> [7.5. Add-On Products, 39]				<p><b>Add-on products are accessory products, such as wizards, templates, and macros, which are not executable files. If a wizard, template, or macro is always packaged only with the 32-bit product it supports, it is considered part of that product for Logo testing. This section applies only to add-on products that are packaged and marketed separately from the product they support. An add-on product does not have to be an executable (.exe).</b></p> <p><b>To qualify for the Logo, add-ons must be used by a 32-bit product that is compliant with Designed for Windows NT 4.0 and Windows 98 Logo. (This does not require the host product to license the Logo.)</b></p> <p><b>If the separately marketed add-on products are also included in a suite of applications, they must be tested separately and with the suite for the add-on to qualify for the Designed for Windows NT 4.0 and Windows 98 Logo.</b></p> <p><b>Add-on products must follow all other Logo requirements that apply to any functionality they provide.</b></p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>· Any executable code in the add-on products must be 32-bit code.</li> <li>· Add-on products must provide automated installers and uninstallers that follow the user interface rules as defined in UI/Shell.</li> <li>· Add-on products that use native data file types must register them and their icons.</li> </ul> <ol style="list-style-type: none"> <li>1. Review item 4-7. Review Analyzer Drive-finalrpt1.doc for each drive, for 32 bit PE file format for all executables and DLLs.</li> <li>2. Review item 6-17-7.</li> <li>3. Review items 6-17-2 and 6-17-11.</li> <li>4. Segment passes this item if no discrepancy from the above sub-steps is noted.</li> </ol>
96.	<b>Item 4-15</b> [5.2 and all sub-paragraphs, p.5-9 – 5-20]				<p>[All Segments] <b>The segment uses the DII COE directory layout or a migration plan to achieve proper directory layout has been prepared.</b></p> <ol style="list-style-type: none"> <li>1. Review results of item 6-17-4.</li> <li>2. Determine segment type as stated after \$Type keyword in SegName segment descriptor file. Find SegName file at: Segment Drive:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\SegName</li> <li>3. Review segment directory structure per reference, appropriate for the segment type. <u>Normally</u>, segment should have the directory structure specified per reference. However, certain directories may be omitted per reference. Other directories may be omitted due to the scope of the segment.</li> <li>4. If directory structure is non-compliant, yet segment documentation does provide a migration plan, segment passes item. If</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					directory structure is non-compliant and there is no migration plan, segment fails item.
97.	<b>Item 5-11</b> [Text of section 5.4; Depending on Segment Type → Figures 5-9; 5-13; 5-15; 5-19;5-21; 5-25]				[All Segments except COTS] <b>The segment loads correctly into the directory assigned by the COE installation tools. It does not require being loaded in any specific directory unless the Chief Engineer has granted a waiver. (This requirement does not apply to COTS segments )</b>  <ol style="list-style-type: none"> <li>1. Install segment to the D: drive, segment should load as required by the COEInstaller.</li> <li>2. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\ Hd_delt.txt</li> <li>3. Review contents of Hd_delt.txt file, examining where files get placed in installation. There should be no files placed in the WINNT directory, any other segment directory or any other location outside the segment directory as the result of installation of this segment. If any are found, segment fails step.</li> <li>4. Next, check in “h” or “Program Files” directory to ensure segment loads correctly per references.</li> <li>5. Segment passes this item if results comply with references and there are no discrepancies.</li> </ol>
98.	<b>Item 6-11</b> [5.2.1, p. 5-14 – 5-16]				[All Segments except COTS] <b>The segment does not use directories with different names than specified in Chapter 5 and 6 to fulfill the purpose of Scripts, bin, data, etc. (Legacy progs and libs are acceptable for this level for as long as the COE tools support them.)</b>  <ol style="list-style-type: none"> <li>1. Compare/review the I&amp;RTS Section 5.2.1 allowed names against segment directory listing/tree.</li> <li>2. Segment passes this item if directory names are those directed in Section 5.2.1.</li> </ol>
99.	<b>Item 6-38</b> [5.5.2.25 p. 5-129]				[All Segments Except COTS or Abbreviated Segmented Segments] <b>Shared libraries provided by UNIX segments are in the segment’s bin subdirectory. For UNIX shared libraries and NT DLLs, the SharedFile descriptor is used to define them, and they are named using the segment prefix convention.</b>  <ol style="list-style-type: none"> <li>1. Review SegInfo file to see if this segment descriptor is implemented. If not this step is N/A.</li> <li>2. Review the contents beneath the [SharedFile] segment descriptor in the SegInfo file: <ol style="list-style-type: none"> <li>a. c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\SegInfo</li> </ol> </li> <li>3. The \$FILENAME keyword should be followed by identification of all shared dll’s. All DLLs must have the segment prefix as the first part of the files name.</li> <li>4. Segment passes this item if shared DLLs are in the segments bin subdirectory and the segments prefix starts each DLLs filename.</li> </ol>
100.	<b>Item 6-14</b> [5.2.1, p. 5-16]				[All Segments except COTS and Abbreviated Segmented COTS Segments] (NT) <b>For full segmentation, the segment stores private INI files, if any, in the segment’s data\INI subdirectory.</b>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	(related information only)]				<ol style="list-style-type: none"> <li>1. Open file <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt</b></li> <li>2. Review contents of <b>Hd_delt.txt</b> file, examining &lt;toward the end&gt; where .ini files get placed in installation. Applying the segment filtering criteria in brackets [ ] above, private .ini files if any should be placed in the <b>c:\&lt;h or Program Files&gt;\&lt;segment_name&gt;\data\INI</b> subdirectory. If any are found elsewhere, segment fails step.</li> <li>3. Segment passes this item if results comply with references and there are no discrepancies.</li> </ol>
101.	<b>Item 6-47</b> [5.5.2.2 p. 5-70]				<p>[All Segments Except Abbreviated Segmented COTS Segments] (NT) <b>For full segmentation, the segment stores its DLL files in the segment's bin subdirectory.</b></p> <ol style="list-style-type: none"> <li>1. Open file <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt</b></li> <li>2. From the Notepad application window upper left pull-down menus, select Search-Find...</li> <li>3. Type ".dll" and begin search. Hit F3 key to perform follow-on searches.</li> <li>4. Ensure that all .dll's are located in the <b>c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\bin</b> directory as noted in the file, if any are found outside the bin directory, segment fails the step.</li> </ol>
102.	<b>Item 7-17</b> [6.7.3, p. 6-33]				<p>[All Segments] (NT) <b>The segment determines the location for shared data through the registry.</b></p> <ol style="list-style-type: none"> <li>1. The intent is shared data should be located by using the registry and not extending the PATH variable.</li> <li>2. First, check the contents of the [SharedFile] Descriptor contents in the <b>c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\SegInfo</b> file.</li> <li>3. Open file <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt</b> to review the contents of the NT Registry. The post_install should access the NT registry under: HKEY_LOCAL_MACHINE\SOFTWARE. The below registry subkeys are used to identify directory paths to shared data: <ol style="list-style-type: none"> <li>a. COE\shared\data_PCglobal</li> <li>b. COE\shared\data_global</li> <li>c. COE\shared\USERS_global</li> </ol> </li> <li>4. Contents under the SharedFile Segment Descriptor should comply with reference and match what is listed in the Registry.</li> <li>5. Also look the NT registry under: HKEY_LOCAL_MACHINE\SOFTWARE\&lt;Program or Segment Name&gt; for subkeys used to identify directory paths to shared data:</li> <li>6. Segment passes this item if the registry was used to identify the runtime location of shared data.</li> </ol>
103.	<b>Item 6-39</b> [5.4.3 p. 5-36]				<p>[All Segments] <b>The segment does not insert the current working directory into the search path for executables. This rule does not apply to PostInstall, PreInstall, or DEINSTALL descriptors or other scripts that are used only during the installation/deinstallation process, nor to scripts used only in a software development environment.</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<ol style="list-style-type: none"> <li>1. Open <code>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\ pathdelt.txt</code> and examine .</li> <li>2. Compare the PATH environment variable between <code>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\BASELINE\ basepath.txt.-</code> <code>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\updatedpath.txt</code>; Segment passes this item if no additions to the path exist after the segment installation is complete.</li> </ol>
104.	<b>Item 5-14</b> [5.5.2.21, p. 5-124]				<p>[All Segments except Abbreviated Segmented Segments ] (NT) <b>For full segmentation segments, the segment creates all its subkeys underneath <i>SegType\SegDir</i> where <i>SegType</i> is Account Groups, COE, COTS, Patches, Data, or Software, and <i>SegDir</i> is the segment's directory name.</b></p> <ol style="list-style-type: none"> <li>1) Open file <code>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt; \AFTRLOAD\EvalData\Hd_delt.txt</code></li> <li>2) Scroll down through the document until you encounter the section that captures all locations where installation of the segment has impacted the registry.</li> <li>3) Verify that all segment subkeys are located under <code>\$HKEY_LOCAL_MACHINE\SOFTWARE\COE\ &lt;SegType \SegDirName&gt;</code> where <code>&lt;SegType&gt;</code> is COTS, Account Group, Software, Data, Database, or Patch, and <code>&lt;SegDirName&gt;</code> is the segment's home directory name.</li> <li>4) Segment passes this portion of step if the search reveals all values and subkeys are in their proper locations.</li> </ol>
105.	<b>Item 5-15</b> [6.5.3, p. 6-25]				<p>[All Segments, except COTS] (NT) <b>All non-COTS segment subkeys are named with the segment prefix.</b></p> <p>Using the approach for checklist Item 5-14 above, ensure that all registry <b>top-level subkeys</b> are properly named per reference. Segment passes step if no discrepancies are found.</p> <p>Note: Some key names are dictated by the registry naming conventions and the prefix can not be used.</p>
106.	<b>Item 7-18</b> [6.7.3, p. 6-33] Logo v3D, 6.2.3				<p>[All Segments] (NT) <b>The segment stores information about shared resources in the registry in accordance with the Logo program requirements.</b></p> <ol style="list-style-type: none"> <li>1. Item does not need to be evaluated if Logo test results provided.</li> <li>2. Review below Logo Handbook guidance provided in paragraph 6.2.3. System &amp; Shared components. Review below Logo Handbook guidance provided in paragraph 6.2.3. System &amp; Shared components.</li> <li>3. Review file list in the <code>c:\h \&lt;segment_name&gt;\data\INI</code> for DLLs put into the Winnt or Winnt/System32 directories.</li> <li>4. Review Analyze created final report Section 1, on the registry for violations of proper ref-counting or shared resources.</li> <li>5. Segment passes this item if shared components (DLLs) are installed on to the platform if not already present or if already present ref count the [HKEY_LOCAL_MACHINE]\SOFTWARE\Microsoft\Windows\Current Version\SharedDLLs key, and that no Core files are ref counted and show on the Analyzer Section 1, of the final report.</li> </ol> <p><b>Required:</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>The application installer must recount <i>all</i> shared components designed to be uninstalled under the following Registry key: [HKEY_LOCAL_MACHINE]\SOFTWARE\Microsoft\Windows\Current Version\SharedDLLs</p> <p><b>Required:</b> The vendor must run Pretest the application using VeriTest's Install Analyzer &amp; include the report results when you submit your product to VeriTest. Improper handling of core and shared components is the number one reason applications fail Logo testing on the first try and must retest. The Install Analyzer provides automated testing of compliance in this area. The Install Analyzer can be found at <a href="http://www.veritest.com/mslogos/nt98/analyzer.htm">http://www.veritest.com/mslogos/nt98/analyzer.htm</a></p> <p><b>Recommended:</b> It is strongly recommended that applications not write anything to the \system32 directory. If you are redistributing system components that must be installed to the system directory, see the recommendation below. Place shared application files in a known shared location specific to your company. It is recommended to store them either of these locations: %common files dir%\&lt;company name&gt; ProgramFiles\Acme\Shared Files</p> <p>The common files directory can be found in the registry at HKLM\Software\Microsoft\Windows\CurrentVersion. The value name is CommonFilesDir. On English systems this is usually "C:\Program Files\Common Files\&lt;Program name&gt;\.</p>
107.	<b>Item 4-8</b> [6.4.2, p. 6-20]				<p>[All Segments except COTS Segments] (NT) <b>Unless a COTS segment, the segment does not modify WINDOWS.INI and SYSTEM.INI. The segment may freely modify its own local .INI files, if it has any.</b></p> <ol style="list-style-type: none"> <li>If the segment is a COTS segment, this step is N/A.</li> <li>Two ways to test, first open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt</li> <li>Scroll to the end of this file and examine if any modifications were made to either of these two .ini files.</li> <li>Make note of findings, but do not complete this step, yet. Consider results found here with results obtained after executing the mission application in SLI 3.</li> <li>The segment passes this portion of step if no modifications are found in these files.</li> <li>Second, open c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\[[drive]-report1.doc, review to see if any modifications were made to these two .ini files.</li> </ol>
108.	<b>Item 4-7</b> [6.4.2, p. 6-20]				<p>[All Segments except COTS Segment] (NT) <b>Unless a COTS segment, the segment does not modify the root-level AUTOEXEC.BAT, CONFIG.SYS, AUTOEXEC.NT, or CONFIG.NT files.</b></p> <ol style="list-style-type: none"> <li>If the segment is a COTS application, this step is N/A.</li> <li>Otherwise, using NotePad, check the contents of the <b>aebtdelt.txt</b>, <b>aentdelt.txt</b>, <b>cfntdelt.txt</b> and <b>cfsydelt.txt</b> files in the install analysis directory: c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData.</li> </ol>



## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					3. The identified individual segment fails this item if an association can be made.
111.	<b>Item 6-10</b> [5.2, Items 5 and 6, p. 5-12; 5.4, Item 4, p. 5-27]				[All Segments] <b>The segment does not alter any community files except through COE segment descriptors or published APIs.</b>  1. Reference findings of community files found in above items 5-100 and 3-17. 2. If any <u>other</u> alterations to community files were found to be made, segment fails step. Note: Community files are files outside of the segment_name directory created during installation -- the post_install segment descriptor might illegally alter a file in a directory outside the segment_name directory. <i>Modifications are allowed only through COE tools &lt;which use the above segment descriptors&gt; or published APIs.</i>
112.	<b>Item 4-12</b> [5.5.2.22, p. 5-126; 2.1.4, Item 9, p.2-23; 6.7.2, p. 6-32; 6.4.2, p. 6-19, 21; 5.10 and all sub paragraphs, pp. 5-154 – 5-159]				[All Segments] <b>Runtime extensions to the COE required by the segment have been identified and documented.</b>  1) Reference documentation of segment for references to extending the runtime environment, i.e., adding a new OS subsystem or non-Win32 library files to simulate another OS. 2) If documentation reflects runtime extensions are used, segment passes step or if neither is provided/used and are not documented, segment fails step.
113.	<b>Item 4-13</b> 5.5.2.22, p. 5-126; 5.4.2, p.5-35; 2.1.4, Item 9, p.2-23; 5.7.2, p. 6-32; 5.4.2, p. 6-19; 5.10 and all sub-paragraphs, pp. 5-154 – 5-159]				[All Segments] <b>The segment uses the same runtime environment configuration as provided by the COE. Extensions to the environment, if any, are made through environment extension files (for UNIX) or Win32 APIs (for NT), and any applicable segment descriptors.</b>  1. Review item 4-7. Review Analyzer Drive-finalrpt1.doc for each drive, for 32 bit PE file format for all executables and DLLs. Java and Perl files must be compatible with the JRE version released with COE. 2. Examine findings from item 4-7 and 6-39 for changes to environment variables. If 6-39 was not evaluated then: Open <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\ Envi_delt.txt</b> and examine for changes in the environment variables. 3. Segment passes this step if all executable files are PE format, Java or Perl, and the segment does not change the runtime environment configuration except through the registry via Win32 API calls. Segment fails this item if additions were made to the environment through the files in item 4-7.
114.	<b>Item 3-13</b> [1.6, #5, p. 1-16 (partial reference)]				[All Segments] <b>The software runs in a well-behaved manner in an environment that includes DII COE approved COTS products and segments, as specified in the DII COE Baseline Document for the COE version being used.</b>  1. Baseline segments:

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<ul style="list-style-type: none"> <li>• Email – Outlook</li> <li>• MS Office</li> <li>• Netscape browser</li> </ul> <p>3. While segment is running:</p> <ul style="list-style-type: none"> <li>• open Outlook and check mail, send one email</li> <li>• open Netscape and open URL external to system</li> <li>• open MS Office, Word and open and save a document</li> </ul> <p>4. Segment passes item if no discrepancies are noted in above steps.</p>
115.	<b>Item 3-18</b> [no reference]				<p>[All Segments] The application can operate on a COE-configured platform without altering the location or version of any system software.</p> <ol style="list-style-type: none"> <li>1. Check the ANALYZE.EXE system drive final report on the desktop.</li> <li>2. Segment passes item if no Core files, as listed in \COE_Eval_Tools\corelist.txt, are listed in the final report as replaced with an older version or are ref counted in the registry.</li> </ol>
116.	<b>Item 8-10</b> [no reference]				<p><b>(NT) The segment properly handles the window close message.</b></p> <p>Segment passes item if item 3-13 is true and the segment starts, creates windows and windows close using the X button in the upper right corner of the window without errors.</p>
117.	<b>Item 5-51</b> [5.5.2.22, p. 5-126; 5.4.2, p.5-35; 2.1.4, Item 9, p.2-23; 6.7.2, p. 6-32; 6.4.2, p. 6-19; 5.10 and all sub- paragraphs, pp. 5-154 – 5-159]			√	<p>[All Segments] <b>The segment uses the same global runtime environment configuration as provided by the COE; extensions, if any, are made through the appropriate environment extension files and segment descriptors.</b></p> <p>The COE does not provide a global runtime environment for Windows NT domain users as of I&amp;RTS version 3.1.</p>
118.	<b>Item 7-15</b> [5.3, p. 5-21]		■ ■ ■		<p>[All Segments except COTS] <b>Excepting COTS segments, all environment variables are named with the segment prefix unless approved by the Chief Engineer. (The Chief Engineer may authorize “grand fathering” of certain environment variables.)</b></p>



## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
			█		<p>review:</p> <ul style="list-style-type: none"> <li>• NT</li> <li>• WIN</li> <li>• WIN95</li> <li>• WINNT</li> <li>• COMPUTERNAME</li> <li>• ComSpec</li> <li>• NUMBER_OF_PROCESSORS</li> <li>• OS</li> <li>• Os2LibPath</li> <li>• PROCESSOR_ARCHITECTURE</li> <li>• PROCESSOR_IDENTIFIER</li> <li>• PROCESSOR_LEVEL</li> <li>• PROCESSOR_REVISION</li> <li>• TEMP</li> <li>• Windir</li> </ul> <p>2. Segment passes this item if none of the above reserved symbols are not changed or the written AF DII COE Chief Engineer has authorization is available.</p>
123.	<p><b>Item 6-37</b> 5.3, Table 5-2, p. 5-25]</p>				<p>[All Segments] <b>The segment does not create any environment variables or other public symbols with the same name as any environment variables listed as reserved in the I&amp;RTS.</b></p> <p>Refer to findings in item 5-48. If there are any environment variable from item 5-48 or from the below list that have been redefined, segment fails step.</p> <ul style="list-style-type: none"> <li>• COE_SYS_NAME</li> <li>• COE_SYS_VERSION</li> <li>• HOMEDRIVE</li> <li>• HOMEPATH</li> <li>• HOMESHARE</li> <li>• LOGONSERVER</li> <li>• Path</li> <li>• PATHEXT</li> <li>• PROMPT</li> <li>• SystemDrive</li> </ul>



## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	paragraph), p.4-33; 5.5, p 5-60; 5.5.1.7, p 5-62; 5.4.5, p.5-44 (for database segments); 6.1.3, p. 6-7 (abbreviated segments)]				for the below items. <ul style="list-style-type: none"> <li>• ReleaseNotes should “provide information useful to an operator in understanding the new functionality being provided by the segment or the problems being fixed, and useful to a system administrator responsible for installing segments. It is <i>not</i> a help file, nor is it information targeted to the system integrator. Therefore, it must not refer to problem report numbers, version<sup>1</sup> numbers, release dates, individuals or companies, point of contact, or similar information. The ReleaseNotes file must not contain any tabs or embedded control characters. ...&lt;Also,&gt; the ReleaseNotes is also a good place to convey information to the sites about any COTS features that are disabled or that may have restrictions on releasability to foreign nationals.”</li> <li>• If segment is a Abbreviated segmented COTS segment, release notes should state so, per reference.</li> <li>• Per I&amp;RTS Paragraph 5.4.5, “<b>For database segments</b>, the ReleaseNotes descriptor should show how applications, operating system groups, and database roles are associated. Developers should also provide the database schema, including its dependencies. In addition to any narrative information in this file, developers should include comments on their schema, data objects, and data elements as part of their database build.”</li> <li>• To elaborate on what this means, per I&amp;RTS Paragraph 3.2.2.2, “This descriptive information includes tables, elements, indexes, privileges, triggers, etc. The database description will be maintained in the ReleaseNotes for the database segment. The storage structure of the segment must also be defined. ” Per paragraph 4.3.4.4.1 (last sub paragraph), “Constraints should still be included in a database segment even when they cannot be enforced....The ReleaseNotes segment descriptor and the comments on the object stored in the data dictionary shall state that these constraints are deliberately disabled so the site’s DBAs know that it is intentional.”</li> </ul> <p>2. Documentation search results should be consistent with results found online. If documentation is incorrect, document a note. Segment passes if online results comply with reference and there are no discrepancies.</p>
127.	<b>Item 5-93</b> [5.2.1 p 5-16]				<p>[All Segments] <b>The segment is submitted with a set of integration notes (IntgNotes) as described in Chapter 5.</b></p> <ol style="list-style-type: none"> <li>1. Intent is that if integration actions are required by the Air Force after the segment is delivered, then integration notes are provided and conform to requirements in the I&amp;RTS.</li> <li>2. Check Documentation. Review the IntgNotes segment descriptor file at: (NT) c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\Integ\IntgNotes</li> <li>3. Note: Integration notes are required and should contain a brief description for why the segment is being submitted (new features, bug fixes, etc.) It should also contain any special instructions that need to be communicated to the integrator for proper</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					segment integration and installation. 4. IntgNotes found online should be consistent with what is found in documentation and should DESCRIBE WHAT EVALUATOR MUST DO TO INSTALL AND INTEGRATE THE SEGMENT. If documentation is incorrect, document in a note. Segment passes if online results comply with reference, are correct per installation procedures, and present no other discrepancies.
128.	<b>Item 5-97</b> [5.2.1 pg 5-14; 5.5.1.4, pg. 5-61 ]				[All Segments] <b>If special installation/integration procedures/problems exist, then they are incorporated into the PostInstall (or other) descriptors as appropriate, and documented in the IntgNotes descriptor file.</b>  1. Review online IntgNotes for any special installation/integration procedures/problems, first, at: 2. c:\<h or Program Files>\<segment name>/Integ/IntgNotes 3. Review results of actual Installation. Determine if online documentation addresses any special installation procedures/problems and is consistent with hardcopy documentation. 4. Then, see how other descriptor files address any special installation/integration procedures/problems. a. a) Review PostInstall segment descriptor file at: c:\<h or Program Files>\<segment name>/SegDescrip/PostInstall b. b) Review PreInstall segment descriptor file at: c:\<h or Program Files>\<segment name>/SegDescrip/PreInstall 5. Documentation search results should be consistent with script and IntgNotes search results found online. 6. Segment passes this item if special installation/integration procedures/problems are incorporated into the PostInstall, Setup.exe or descriptors and documented in the IntgNotes.
129.	<b>Item 5-4</b> 5.5.2.12 pg 5-103,105; 5.8.5 pg 5-145]				[All Segments] <b>For all segments, whether COE-component segments or mission-application segments, prior approval has been granted by the Chief Engineer to provide a command-line mode or feature that allows "superuser" access. The \$CMDLINE and \$SUPERUSER keywords are used in the Direct segment descriptor to indicate superuser access.</b>  1. Not implemented in NT COEInstaller, \$\$\$SUPERUSER does not exist but a \$CMDLINE could be used if OpenNT or other UNIX subsystem is installed. 2. Review file contents at /h/<segment name>/SegDescrip/SegInfo. 3. Check to see if [Direct] Segment Descriptor is used in the file. Then check to see if the \$CMDLINE and \$SUPERUSER keywords are used beneath it in that section. Any use of the descriptor and these keywords should be consistent with documentation findings. 4. Also, look for use of the \$KEY keyword associated with the \$CMDLINE keyword AND, separately, with the \$SUPERUSER keyword. Proper use of the \$KEY keyword with each of these keywords constitutes approval.

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>5. Results found in documentation should match what is online. If documentation is does not match, develop a note.</p> <p>6. Exercise mission application, make note of ability to enter command line mode or to obtain superuser access from within the segment.</p> <p>7. Segment passes this item if \$\$SUPERUSER keyword was used and written approval from the Chief Engineer is available for review.</p> <p><b>Note:</b> The segment fails the checklist level if the Direct descriptor with \$CMDLINE and \$\$SUPERUSER keywords are found online without \$KEY or written approval.</p>
130.	<p><b>Item 5-58</b> [5.4.12, p. 5-53 (related information only)]</p>			√	<p>[COE Component Segments Only] <b>Segments in the COE kernel fully specify dependencies upon supporting components within the kernel. This is done through the Requires segment descriptor.</b></p> <ol style="list-style-type: none"> <li>Review the SegInfo segment descriptor file at: c:\&lt;h or Program Files&gt;\COE\Comp\&lt;segment &gt;\SegDescrip\ SegInfo</li> <li>Locate the optional [Requires] Segment Descriptor section in SegInfo file. Contents should comply with reference if segment dependencies exist.</li> <li>Air Force mission-applications should be submitted as COE component segments, item should be N/A.</li> </ol>
131.	<p><b>Item 5-72</b> [5.5.2.7, p. 5-80; 5.5.2.23, p. 5-127; 5.2.1, p. 5-16; 5.5.1.10, 5-63, 67]</p>				<p>[All Segments] <b>All segment dependencies and conflicts are fully declared through the appropriate descriptor. (Mission-application segments need not specify dependencies on segments contained in the COE kernel unless they are version sensitive. COE-component segments need not specify dependencies on the COE kernel unless they are sensitive to version changes in the COE kernel.)</b></p> <ol style="list-style-type: none"> <li>Note results of segment installation.</li> <li>Review the contents of the [Requires] and [Conflicts] segment descriptors in the SegInfo file: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\SegInfo</li> <li>If segment is a parent or child segment in an aggregate segment, check the SegName file in the SegDescrip directory using fourth reference.</li> <li>Segment passes item if: the contents of segment descriptors are correctly specified per references.</li> </ol>
132.	<p><b>Item 5-70</b> [5.4.7, p. 5-48; 5.5.1.10, p. 5-66]</p>				<p>[Aggregate Segment Attribute Only] <b>Only one segment in the aggregate is designated as the parent.</b></p> <ol style="list-style-type: none"> <li>Review the SegName segment descriptor file at: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\SegName Note: Account group segments will have path: /h/AcctGrps/&lt;segment name&gt;/SegDescrip/SegName&gt;</li> <li>Ensure Segment has Aggregate Attribute specified per second reference. If not, this step is N/A.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>3. Ensure that at least one \$CHILD keyword is used per second reference to associate one child segment; Child segments in the aggregate must be listed. In evaluating all segments of mission application, there should be no others identified with the Aggregate Attribute in the same aggregate of segments. &lt;There may be multiple segment aggregates (inseparable groups of segments) in a mission application.. but not with the same aggregate name&gt; However, there may be several segments in an aggregate with the Child Attribute.</p> <p>4. Segment passes step if segment descriptor is used correctly, and there is only one parent in aggregate.</p>
133.	<b>Item 5-69</b> [5.4.7, p. 5-48; 5.5.1.10, p. 5-66]				<p>[Aggregate Segment Attribute Only] <b>If a child segment &lt;attribute&gt;, the segment does not specify a dependency on any other children in the aggregate.</b></p> <p>1. Review the SegName segment descriptor file at: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\ SegDescrip\SegName. Account group segments will have path: /h/AcctGrps/&lt;segment name&gt;/SegDescrip/SegName&gt;.</p> <p>2. Ensure Segment has Child Attribute per reference. If not, this step is N/A.</p> <p>3. If Segment has Child Attribute, the SegName Segment Descriptor file should specify only one \$Parent keyword per reference, specifying a dependency on the parent. However, there should be no \$CHILD keywords; if there are any segment fails step.</p>
134.	<b>Item 5-68</b> [5.4.7, p. 5-48; 5.5.1.10, p. 5-66]				<p>[Aggregate Segment Attribute Only] <b>If a parent segment, the segment does not specify a dependency on any of its child segments.</b></p> <p>1. Check SegName segment descriptor file in directory c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip ...to see if AGGREGATE segment attribute is identified using the \$TYPE keyword as specified in second reference. If not, this step is N/A. Note: Account group segments will have path: /h/AcctGrps/&lt;segment name&gt;/SegDescrip/SegName&gt;.</p> <p>2. Review the SegInfo segment descriptor file at: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\ SegInfo</p> <p>3. Locate the optional [Requires] Segment Descriptor section in SegInfo file. This segment descriptor file should not be used to specify any dependencies of a parent on child segments in the aggregate. If the [Requires] descriptor is used for this purpose, segment fails this item .</p> <p>4. Segment passes this if the parent segment does not specify a dependency of any of the child segments.</p>
135.	<b>Item 4-1</b> [5.4.7, p.5-49; 5.5.2.24, p. 5-128; 5.8.1, p. 5-144]				<p>[Aggregate and Child Segment Attributes] <b>If an aggregate segment, the security level of the parent segment dominates the security level of the child segments.</b></p> <p>1. Check all delivered documentation for parent and child segments per reference and note below. Also, check SVD appendices for a SegInfo Printout. Look for proper contents under the [Security] segment descriptor in the SegInfo printout.</p> <p>2. Review the SegName segment descriptor file at: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\SegName . Ensure Segment is of Aggregate Type (Parent or Child), if not, this step is N/A.</p>



## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
138.	<b>Item 5-104</b> [5.5.2.12, p. 5-105; 6.1.3, p. 6-8; 6.2, p. 6-10]			✓	<p>[Full or Abbreviated Segments COTS Segments Only] (NT) <b>If the installation program for an abbreviated segmentation segment registers itself with the NT Control Panel Add/Remove Programs application, or the Chief Engineer has approved a full segmentation segment to register itself with the Control Panel application, the \$USES_UNINSTALL<sup>2</sup> keyword is declared in the segment's Direct descriptor.</b></p> <p><b>{N/A until keyword is implemented}</b></p> <ol style="list-style-type: none"> <li>1. Review Installation Procedures to see if segment uses NT Control Panel Add/Remove Programs application to place information in registry.</li> <li>2. If so and if the segment is fully segmented, review COE 1 findings for an approval to use it. If no approval is found, fully segmented segment fails step.</li> <li>3. Review the SegInfo segment descriptor file at: (NT) c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\ SegInfo.</li> <li>4. Locate the optional [Direct] Segment Descriptor section in SegInfo file. Determine if the \$USES_UNINSTALL keyword is used.</li> <li>5. If the keyword is used, ensure it is used properly per reference.</li> <li>6. Segment passes step if it is used properly per reference.</li> </ol>
139.	<b>Item 6-58</b> [5.5.1.1, p. 5-60; 5.5.2.4, p. 5-72; 5.5.2.5, p. 5-78]				<p>[All Segments] <b>If the segment has a DEINSTALL and Community descriptor, it also includes a Comm.deinstall descriptor which reverses the actions of the Community descriptor during segment removal.</b></p> <ol style="list-style-type: none"> <li>1. Review SegDescrip directory and determine if a DEINSTALL segment descriptor is present. If not, this step is N/A.</li> <li>2. If found, review SegInfo Segment Descriptor file. See if community descriptor is used. If not, this step is N/A to segment.</li> <li>3. If it is used, then segment may modify directory/files outside of its own segment structure, and the SegInfo file must also have a comm.deinstall built into it to undo the changes made during installation.</li> <li>4. If routine is not found, segment fails step.</li> </ol>
140.	<b>Item 6-12</b> [9.1.3, p. 9-4; 9.5, p. 9-12]				<p>[All Segments] <b>If the segment contains APIs written in C, the header files for the public APIs are ANSI-C-compliant and use function prototypes, and the header files are constructed to support C++ calling routines.</b></p> <ol style="list-style-type: none"> <li>1. Review Testing Questionnaire. Public APIs must be in specific directories -- The Public header files must be under the '&lt;segment_name&gt;/include' directory. A review of the header files should reveal a C construct and, within the construct, the possible use of the <i>static</i> directive to restrict the visibility of the function to the file containing the function definition (part of the</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p><i>static</i> directive notation).</p> <p>2. Segment passes this item if supported APIs written in C the header files for the public APIs are ANSI-C-compliant and use function prototypes, and the header files are constructed to support C++ calling routines</p>
141.	<b>Item 6-40</b> [no reference]				<p><b>If the segment provides public APIs, all uses of signals and process or thread creation within the segment's public libraries are documented in the appropriate programmer's guides. Moreover, all such API functions shall be reentrant to allow them to be called from a multithreaded application.</b></p> <p>1. Examine the directory structure to verify that both Ada and C library functions are provided with the segment. If the segment provides APIs, then the segment should have subdirectories named, "include", and "lib" under the "segment_name" directory. Public API header files should be in sub-directory &lt;segment_name&gt;/include. There should be a header for both C and Ada interfaces.</p> <p>2. Review programmers guide for the provided APIs for use of signals and process or thread creation.</p> <p>3. Segment passes this item if the documentation describes uses of signal and process or thread creation of the provided APIs.</p>
142.	<b>Item 7-12</b> [9.1, p. 9-2]				<p>[All Segments] <b>If the segment contains public APIs, Ada and C interfaces are both provided unless the Chief Engineer grants a waiver.</b></p> <p>1. Examine the directory structure to verify that both Ada and C library functions are provided with the segment. If the segment uses APIs, then the segment should have subdirectories named, "include", and "lib" under the "segment_name" directory. Public API header files should be in sub-directory &lt;segment_name&gt;/include. There should be a header for both C and Ada interfaces.</p> <p>2. If no APIs are used, step is N/A.</p> <p>3. If APIs are used but not documented, check results of item 6-40.</p> <p>4. Segment passes this item if APIs are used and C and ADA interfaces are provided, or a Chief Engineer approved waiver is available at start this evaluation.</p>
143.	<b>Item 6-56</b> [9.1.1, p. 9-2]				<p>[All Segments] <b>If the segment has published APIs implemented as shared libraries, static libraries are provided as well.</b></p> <p>1. Segments with public APIs implemented as shared libraries (/h/&lt;segment_name&gt;/lib) shall also be delivered as static libraries to make debugging easier for developers who need to use the APIs. The developer will have to provide reference to the static directories used for duplication of shared library files -- check documentation and, if questions, contact the developer to determine if shared/static files are provided for public APIs.</p> <p>2. Segment passes item if published APIs have static libraries provided.</p>
144.	<b>Item 8-19</b>				<p>[All Segments] <b>The segment does not use any private APIs to access external segments. All accesses are through public APIs or approved protocol standards.</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	[3.3, p. 3-22]				<ol style="list-style-type: none"> <li>1. Access to files and resources external to the segment is done through Win32 APIs or other public APIs. Private APIs should be under a directory [./&lt;segment_name&gt;/src]. If this directory is provided, the <i>PrivInc</i> subdirectory should contain header files that are private to the segment -- viewing these for any reference (call, pointer to, etc.) to a directory structure outside the &lt;segment_name&gt; directory will identify attempts to access external segments.</li> <li>2. Segment passes this item is all accesses to external segments are through public or approved APIs.</li> </ol>
145.	<b>Item 7-35</b> [no reference]				<p>[All Segments] <b>No more than 25% of the segment's accesses to COE-component segments is through private APIs.</b></p> <ol style="list-style-type: none"> <li>1. Reference 8-19 findings if available.</li> <li>2. If segment uses just Win32 API this item is N/A.</li> <li>3. Review the segment documentation, including the requirements document and the SDD, to determine the number of accesses to COE-component segments.</li> <li>4. Review the documentation to identify any private APIs provided by the segment.</li> <li>5. Segment passes this item if no more than 25% of the accesses to COE-component segments are through the private APIs , rather than the Win32 APIs or COE public APIs.</li> </ol>
146.	<b>Item 6-62</b> [no reference]				<p>[All Segments] <b>If the COE provides functions required by the segment, at least 50% of the functions required are provided by the COE and not by duplicative code in the segment.</b></p> <p>During operation of the segment, review functionality provided by segment, if more then 50% of the segments functionality duplicates functionality provided by the COE components and common support segments then the item fails.</p>
147.	<b>Item 7-13</b> [5.4.4, p. 5-41; 5.2.1, p. 5-15; 6.3.3.2, p. 6-16]				<p>[All Segments] <b>Global and local data owned by the segment are located underneath \$DATA_DIR as described in Chapter 5 for UNIX and as described in Chapter 6 for NT.</b></p> <ol style="list-style-type: none"> <li>1. Review directory structure to see that static data files are located under Segment Drive:\&lt;h or Program Files&gt;\&lt;segment name&gt;\data. And that dynamic data files are located under: Data Drive:\data\[local or global]\&lt;Segment Prefix&gt;\data</li> <li>2. If segment complies with above steps and there are no discrepancies, segment passes step.</li> </ol>
148.	<b>Item 6-53</b> 3.2.1.2, Item 10, p.3-16; 9.1.1, p. 9-3]				<p>[All Segments] <b>The segment includes an API test suite that exhaustively exercises all APIs provided by the segment.</b></p> <ol style="list-style-type: none"> <li>1. The test suite (data sets, etc.) Should be part of the delivered documentation and software provided to CM. It should include test cases for executing the API tests based on the provided test data.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					2. Segment passes item if the test suite demonstrates the exercise of all provided APIs.
149.	<b>Item 8-13</b> [3.2.2.2, p. 3-20]				<p>[Database Segments only] <b>A test database is provided together with test procedures to verify correct installation of the database and associated roles, and to verify correct operation of constraints defined in the database.</b></p> <p>1. Self explanatory -- all information should be provided in the delivered documentation and media (diskettes/tapes, etc.). Run test procedures against test database and record result and compare to functionality described in documentation.</p> <p>2. Segment passes item if the test procedures verify correct installation of the database and associated roles, and correct operation of constraints defined in the database.</p>
150.	<b>Item 8-18</b> [3.2.2.2, p. 3-20; 5.8.1, p. 5-144]				<p>[All Segments] <b>The segment includes a set of test data for verifying correct segment operation.</b></p> <p>1. Exercise segment as described in documentation. All information should be provided in the delivered documentation and media (diskettes/tapes, etc.).</p> <p>2. Segment passes item if test data supports testing of all functionality provided by the segment.</p>
151.	<b>Item 6-54</b> [9.5 p.9-12]				<p>[All Segments] <b>The segment includes man pages, help files, or HTML-format pages, for all APIs that are to be distributed with the Developer's Toolkit.</b></p> <p>1. Check to see if the \h or \Program Files\ &lt;segment_name&gt;\data\help directory is there and if any files are provided under it for the APIs.</p> <p>2. Segment passes item if help files of HTML-files for all APIs are present.</p>
152.	<b>Item 5-12</b> [3.1.1, p. 3-3; 3.1.2, p. 3-4 <for COTS and Abbreviated Segmented COTS segments>; 3.1.3, p. 3-5 <for Patch segments>; 3.1.4 p. 3-5 <for COE Kernel>;				<p>[All Segments] <b>The segment conforms, in its VERSION descriptor, to the COE version numbering scheme.</b></p> <p>1. Review the Version segment descriptor file at: <b>c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\Version</b></p> <p>2. Segment version number should be identified per reference.</p> <p>3. Segment passes if online results comply with references and there are no discrepancies.</p> <p><b>Note:</b> Segment version numbers consist of a sequence of 4 digits, separated by decimal points, of the form a.b.c.d where each of the digits have a specific meaning. Read the reference to understand the meaning of each position -- and compare the version sequence number to any/all previous version sequence numbers for the same segment to determine if the convention has been followed. COTS and Abbreviated segmented COTS segment version numbers should be of the format "a.b.c.d/ &lt;COTS software version #&gt;" Pathes are 1.0.0.0.P1.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	5.5, Item 21, p. 5-60; 5.5.1.12, p. 5-68]				
153.	<b>Item 5-91</b> 3.1.1, p. 3-3; 3.1.2, p. 3-4 < for COTS and Abbreviated Segmented COTS segments>; 3.1.3, p. 3-5; 3.1.4 p. 3-5; 5.5, p. 5-55; 5.5.1.12, p. 5-68				<p>[All Segments] <b>The VERSION descriptor has been updated from the previous release in accordance with the requirements specified in Chapter 5. (This does not apply to the initial release of the segment.)</b></p> <ol style="list-style-type: none"> <li>Review the Version segment descriptor file at: c:\&lt;h or Program Files&gt;\&lt;segment name&gt; \SegDescrip\Version</li> <li>Segment version number should be identified per reference.</li> <li>Documentation search results should be consistent with results found online. If documentation is incorrect, document a note.</li> <li>Segment passes item if online results comply with reference and there are no discrepancies.</li> </ol> <p><b>Note:</b> Segment version numbers consist of a sequence of 4 digits, separated by decimal points, of the form a.b.c.d where each of the digits have a specific meaning. Read the reference to understand the meaning of each position -- and compare the version sequence number to any/all previous version sequence numbers for the same segment to determine if the convention has been followed. COTS and Abbreviated segmented COTS segment version numbers should be of the format "a.b.c.d/ &lt;COTS software version #&gt;"</p>
154.	<b>Item 6-63</b> [3.1.1 p. 3-4]				<p>[All Segments] <b>API backwards compatibility conforms to the <u>version numbering scheme</u> described in chapter 3.</b></p> <ol style="list-style-type: none"> <li>Review the Version segment descriptor file at: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\Version</li> <li>Segment version number should be identified per reference. If the segment is being released for the first time, the step is N/A.</li> <li>Segment passes item if online results comply with reference and there are no discrepancies.</li> </ol> <p><b>Note:</b> Segment version numbers consist of a sequence of 4 digits, separated by decimal points, of the form a.b.c.d where each of the digits have a specific meaning. Read the reference to understand the meaning of each position -- and compare the version sequence number to any/all previous version sequence numbers for the same segment to determine if the convention has been followed. COTS and Abbreviated segmented COTS segment version numbers should be of the format "a.b.c.d/ &lt;COTS software version #&gt;"</p>
155.	<b>Item 5-99</b> [5.4.6, pg. 5-47]				<p>[Patch Segment Only] <b>If a patch segment, it follows the patch segment naming convention.</b></p> <ol style="list-style-type: none"> <li>Review the Version segment descriptor file at: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\SegName</li> <li>Segment name should be identified per reference: &lt; SegDir &gt;.P&lt;Patch Number&gt;.</li> <li>Segment passes item if online results comply with reference and there are no discrepancies.</li> </ol>
156.	<b>Item 5-79</b> [6.2, #4, 6-9]				<p>[All Segments] <b>(NT) The segment's executable descriptors use the .EXE extension for compiled executables and .BAT for batch files.</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<ol style="list-style-type: none"> <li>1. Review the SegDescrip directory contents at: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip</li> <li>2. Make sure that all of the following segment descriptor files contain the .exe or .bat file extension, if the files are provided: PREINSTALL, POSTINSTALL, DEINSTALL, PreMakeInst see if they are all .exe or .bat files. Check Analyzer final reports for each drive, examine 32 bit PE format files, all files should be DLL or EXE.</li> <li>3. If the file extensions are provided for all these files in the SegDescrip directory, segment passes item.</li> </ol>
157.	<b>Item 6-16</b> [6.5.2, p. 6-24]				<p>[All Segments] (NT) <b>The segment uses filename extensions in accordance with standard Windows usage (*.TXT for ASCII file, *.DLL for dynamic link libraries, etc.)</b></p> <ol style="list-style-type: none"> <li>1. Review file name extensions of all files under c:\&lt;h or Program Files&gt;\&lt;seg_name&gt; to ensure extensions are provided and to ensure they match usage (e.g., .txt files should be readable in DOS editor, etc.). Compare to common extensions provided on page 243 of <i>The Windows Interface Guidelines for Software Design</i>.</li> <li>2. Segment passes item if extension usage is consistent with <i>The Windows Interface Guidelines for Software Design</i>.</li> </ol>
158.	<b>Item 5-59</b> [5.3, pg. 5-21; 5.4.3, p. 5-36; 5.4.4, p. 5-39; 5.4.8, p. 5-52; 3.2.1.1, p. 3-12 (related information only)]				<p>[COE Component Segments Only] <b>All executables and other public symbols use the segment prefix unless otherwise approved by the DII COE Chief Engineer. (Certain legacy segments may be “grandfathered” by the DII COE Chief Engineer. COTS products cannot generally conform to this requirement. Public symbols within COTS products for which there is no choice are exempted.)</b></p> <ol style="list-style-type: none"> <li>1. Check naming of all files in all subdirectories under the c:\h\COE\Comp directory to see if the appropriate segprefix is used to name all executables and public symbols. <ol style="list-style-type: none"> <li>1. COE PARENT segprefix should be used in all file names under Scripts, bin, and data subdirectories in the COE directory.</li> <li>2. ensure each file name uses the appropriate COE CHILD segprefix in the Scripts, bin, and data subdirectories of each COE CHILD segment.</li> </ol> </li> <li>2. If segment follows naming conventions or an Air Force Chief Engineer approved waiver, segment passes item.</li> </ol>
159.	<b>Item 8-5</b> [5.3, p. 5-21; 5.4.3, p. 5-36; 5.4.4, p. 5-39; 5.4.8, p. 5-52; 3.2.1.1, p. 3-12 (related information only)]				<p>[All Segments] <b>All public symbols are named with the segment prefix naming convention.</b></p> <ol style="list-style-type: none"> <li>1. Check the Analyze Drive-report1.doc for all new registry entries for the segprefix. Note: the registries naming conventions dictate many registry key names.</li> <li>2. Check the new environment variables created for the segprefix in the c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\ENVI_delt.txt file.</li> <li>3. If segment follows naming conventions, segment passes item.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
160.	<b>Item 8-16</b> [5.3, pg. 5-21; 5.4.3, p. 5-36; 5.4.4, p. 5-39; 5.4.8, p. 5-52; 3.2.1.1, p. 3-12 (related information only)]				<p>[All Segments except COTS] <b>Except for COTS products, all executables and public symbols are named <i>segprefix_name</i>, where <i>segprefix</i> is the assigned segment prefix.</b></p> <ol style="list-style-type: none"> <li>Reference finding on item 8-5. Check the Analyze Drive-finalrpt1.doc for all new files for use of the segprefix use in executables.</li> <li>Segment passes item if all executables and public symbols (where commercial naming conventions allow) start with the segment prefix.</li> </ol>
161.	<b>Item 5-16</b> [6.5.2, p. 6-24; 6.7, p. 6-31; 6.7.5, p. 6-34]				<p><b>(NT) The segment supports UNC filenames.</b></p> <ol style="list-style-type: none"> <li>Item does not need to be evaluated if Logo test results provided.</li> <li>From Logo handbook v3D, section 6.8.</li> </ol> <p><b>Required:</b>                      Your application must support the Universal Naming Convention (UNC). UNC paths allow logical connections to network devices without the need to specifically reference a network drive letter. Your application does not need to be network-aware per se, but it does need to work seamlessly in a network environment. The system must be able to locate the network server and path with the UNC name even over a modem connection. Supporting UNC does <i>not</i> mean that the application is disallowed from presenting network drive letters to users. It merely means that the user must have the option of using only the UNC path name.</p> <hr/> <p><b>Note:</b> An LFN is 260 characters, which in general includes 3 bytes for "&lt;driveletter&gt;:\", 255 bytes for the filename+extension, and 2 bytes for the null terminator. A UNC path has 2 bytes for "\" instead of 3 bytes for "&lt;driveletter&gt;:\", and the path may not include an extension (filetype).</p> <p>Run the segment if you can save files, save a test file, UNC's must do the following:</p> <ul style="list-style-type: none"> <li>Test the following list of file names, which should save to the hard disk as indicated. Then open the file using segment:</li> </ul> <p><i>If you type...</i>  <i>It should be saved as</i></p> <pre>                       server\share one\folder three\file                       server\share one\folder three\file.ext                 </pre> <ol style="list-style-type: none"> <li>Segment passes item if the UNC in the format <code>  server\share\folder three\file</code> is saved to a remote system as</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p><a href="#">\\server\share\folder three\file.ext</a> and then can be opened by entering <a href="#">\\server\share\folder three\file.ext</a>.</p>
162.	<p><b>Item 6-15</b> [6.5.2, p. 6-24; 6.7, Item 9, p. 6-31; 6.7.5, Item 2, 6-33]</p>				<p><b>(NT) The segment supports long filenames.</b></p> <ol style="list-style-type: none"> <li>Item does not need to be evaluated if Logo test results provided.</li> <li>From Logo handbook v3D section 6.8.</li> </ol> <p><b>Note:</b> An LFN is 260 characters, which in general includes 3 bytes for "&lt;driveletter&gt;:\", 255 bytes for the filename+extension, and 2 bytes for the null terminator. A UNC path has 2 bytes for "\\\" instead of 3 bytes for "&lt;driveletter&gt;:\", and the path may not include an extension (filetype).</p> <p><b>Required:</b> If your application saves files that are exposed to the user, your application must support LFNs with all of the following required features:</p> <ul style="list-style-type: none"> <li>Users must be able to enter names of 255 characters, including all uppercase and lowercase standard characters, embedded spaces, embedded periods, etc.</li> <li>Leading and trailing spaces must be stripped by the Save As command. To test this, enter a name with leading and trailing spaces, such as "####This is a test###", retrieve the file, and then make sure the spaces are deleted.</li> </ul> <hr/> <p><b>Note:</b> Here and throughout this handbook, the number sign (#) indicates a spacebar space.</p> <ul style="list-style-type: none"> <li>Question marks anywhere in the file name must prevent the file from being saved. No error message needs to be displayed.</li> <li>The characters within the quotation marks " + , ; = [ ] " must be supported anywhere in the name, including leading and trailing. These should not cause any error conditions. (Note: support for leading and trailing periods has been dropped from the Logo requirements.)</li> </ul> <p><b>Required:</b> If a file name is fully exposed in Windows Explorer, it must be a fully supported LFN. Applications are allowed to use "labeling schemes" in which a user is saving, for example, a report type or a game state, without actually creating a file that is exposed to the user in Windows Explorer.</p> <p><b>Required:</b> The application must use LFNs for displaying all documents and data files in the shell, in title bars, in dialog boxes and controls, and with icons.</p> <p><b>Required:</b> You must test your LFN functionality on Windows NT FAT, NTFS, and compressed NTFS partitions</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p><b>To test whether the segment product properly handles Long File Names:</b></p> <p>LFNs must do the following:</p> <ul style="list-style-type: none"> <li>• Allow plus signs, commas, semicolons, equal signs, and square brackets anywhere.</li> <li>• Not save leading or trailing spaces. You can test for this by typing “###test###” or similar text in the “Save As” dialog box. (In this section, the number sign (#) indicates a spacebar space.) The program should strip the spaces and add an extension, returning the file name “test.ext”.</li> <li>• Not save question marks.</li> <li>• Support 255 characters (including the path and extension).</li> <li>• Test the following list of file names, which should save to the hard disk as indicated:</li> </ul> <p>2. Segment passes item if the four files in the table below are typed and saved as illustrated.</p> <p><i>If you type...</i>  <i>It should be saved as</i></p> <p>“test”  “test.ext”</p> <p>“ test”  “test.ext”</p> <p>“test “  “test.ext”</p> <p>“test123456789123456789#;##,##=#[#]”  “test123456789123456789#;##,##=#[#].ext”</p> <p>Note: Go back and complete items 6-17-31-33.</p>
163.	<b>Item 6-19</b> [Appendix F: F-1.5, p. F-7; F-3.5, p. F-19]				<p>[Database segments only] <b>Neither Informix nor Oracle Public Synonyms are used.</b></p> <p>1. The segment should reference the database (call for data) using the full owner.table.data-element convention rather than any other method of short name, alias, or public synonym. This can be checked by reviewing scripts under the \install subdirectory for the segment.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					2. Segment fails this item if public synonyms are implemented.
164.	<b>Item 5-57</b> [5.4.8 pg 5-52]			√	[COE Component Segments Only] <b>The segment has been authorized as a DII COE component segment by the DISA Chief Engineer.</b>  1. This item is normally N/A as the Air Force normally does not evaluated component segments. 2. Review the SegName segment descriptor file: c:\<h or Program Files>\COE\Comp\<segment >\SegDescrip\ SegName 3. Look for \$KEY keyword. Proper use of this keyword constitutes approval. 4. Segment passes item if approval is found.
165.	<b>Item 1-1</b> [1.2.1, p. 1-6 (Related Information); 1.6, Items 11 and 14, p. 1-17,18]			✓	[COE Operating Systems Only] <b>The operating system and associated software conform to the following standards from the JTA:</b>  (a) ISO 9445-1:1996, Information Technology - Portable Operating System Interface for Computer Environment (POSIX) - Part 1: System Application Program Interface (API) [C Language], as profiled by FIPS 151-2:1994. (b) IEEE 1003.1g:1996 Draft, POSIX - Part 1: System Application Program Interface (API) Amendment 2: Protocol Independent Interfaces (Sockets) [C Language].  Used only by DISA for operating system kernel evaluation
166.	<b>Item 1-2</b> [(Related Information) 9.1.2, p. 9-4]			✓	[COE Operating Systems Only] <b>Unless approved by the DII COE Chief Engineer, the operating system supports the System API for FIPS 119 (Ada95).</b>  Used only by DISA for operating system kernel evaluation.
167.	<b>Item 1-3</b> [(Related Information only) 8.1.1, p. 8-2]			✓	[COE Operating Systems Only] <b>The operating system is configured to support DCE through the use of Remote Procedure Calls (RPCs).</b>  Used only by DISA for operating system kernel evaluation.
168.	<b>Item 1-4</b> [6.7.11, p. 6-36; 5.5.2.3 p. 5-62 (Both provide Related Information Only)]			✓	[COE Operating Systems Only] <b>The operating system is configured to support TCP/IP protocols.</b>  Used only by DISA for operating system kernel evaluation.
169.	<b>Item 1-5</b> [5.5.2.3 p. 5.62]			✓	[COE Operating Systems Only] <b>The operating system is configured to support udp broadcasts.</b>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	(Related Information Only)]				Used only by DISA for operating system kernel evaluation.
170.	<b>Item 1-6</b> [No reference]			✓	[COE Operating Systems Only] <b>The operating system is configured to support SLIP and PPP.</b>  Used only by DISA for operating system kernel evaluation
171.	<b>Item 2-6</b> [No reference]			✓	[COE Operating Systems Only] <b>The operating system supports sockets, including Berkeley sockets (for UNIX) and WinSockets 2.0 (for NT).</b>  Used only by DISA for operating system kernel evaluation
172.	<b>Item 2-5</b> [6.7.4, p. 6-33]				[All Segments] (NT) <b>NT is configured to use the NTFS file system for files stored on hard disks. (Note: NT uses the FAT file system for floppy diskettes and CDFS for CD-ROMs. Such usage is generally transparent to applications. However, NTFS is required on the hard disk for security reasons.)</b>  <ol style="list-style-type: none"> <li>1. Open Windows NT Explorer. Select the drive partition (usually "c:") on which Windows NT is loaded (c:\winnt directory must exist). Select File-Properties.</li> <li>2. Review the c: drive partition properties to see that NTFS is the file system used with NT.</li> <li>3. If confirmed, segment passes item.</li> </ol> Note: Intent is pre-built systems delivered with the segment installed must have NTFS formatted partitions.
173.	<b>Item 3-1</b> 5.5.2.22, pg 5-126; 5.10.4, pg 5-156]				[All Segments] <b>If extensions to the operating system as configured for the COE are required, all such extensions have been identified and documented. This includes the configuration of all operating system resources including the amount of shared memory required, the number of semaphores, the message queue size, etc.</b>  <ol style="list-style-type: none"> <li>1. Review documentation to see if an NT sub-system or like operating system extension is installed with the segment, like POSIX.</li> <li>2. Review file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt for operating system level registry entries changed during the segments installation and operation.</li> <li>3. Documentation search results should be consistent with results found online. If documentation is incorrect, document a note.</li> <li>4. Segment passes if online results comply with reference and there are no discrepancies.</li> </ol>
174.	<b>Item 3-2</b> [2.1.2, p. 2-12 (related information)]				[All Segments] <b>The operating system configuration required by the application does not decrease or conflict with any system resources as already configured for the COE. The application may increase system resource configurations, but not decrease them.</b>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<ol style="list-style-type: none"> <li>1. Review file <code>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt</code> for operating system level registry entries changed during the segments installation and operation.</li> <li>2. Segment passes item if results show an increase in system resource configurations but no decreases from default values.</li> </ol>
175.	<b>Item 5-47</b> [5.2, p. 5-12]				<p>[All Segments] <b>The Segment uses relative pathnames for files within the Segment.</b></p> <ol style="list-style-type: none"> <li>1. Review segment descriptor files <code>\h\Segprefix\SegDescriptor</code> for hard coded directory and files references.</li> <li>2. Install to the Segment drive (D:) segments installation and operation. (normally hard coded names are addressed to the system drive so installing to another drive will cause name related errors to show up).</li> <li>3. Segment passes item if results show that relative pathnames are used.</li> </ol>
176.	<b>Item 6-36</b> [5.2, p. 5-12]				<p>[All Segments] <b>If the segment uses absolute pathnames to reference files outside the segment, it is able to determine the absolute path at runtime. For UNIX segments, the segment is able to handle symbolic links that are themselves symbolic links.</b></p> <ol style="list-style-type: none"> <li>1. See item 5-47, check for external file name references.</li> <li>2. Segment passes item if during the exercise of the segment short cuts and UNC's that are used are successfully resolved at runtime.</li> </ol>
177.	<b>Item 5-24</b> [4.2.8, p. 4-21]				<p>[All Segments] <b>Segments are not tied to a particular server name (i.e., The segment does not hardcode a server name.)</b></p> <ol style="list-style-type: none"> <li>1. If a client application or the segment requires/sends information from/to an external source, verify that the server name or IP address can be set from the GUI or can be set in the registry or a private .INI file.</li> <li>2. Segment passes item if no evidence of hard coded server names is found.</li> </ol>
178.	<b>Item 5-18</b> [5.5.2.3 p. 5-70]				<p>[All Segments] <b>If ports are required, they have been identified and documented in the COEServices segment descriptor.</b></p> <ol style="list-style-type: none"> <li>1. Examine the segment's COEServices section of the SegInfo descriptor file.  <code>cd /h/&lt;SegDirName&gt;/SegDescrip</code>            where <code>&lt;SegDirName&gt;</code> is the segment's home directory under <code>/h</code>  <code>more +/COEServices SegInfo.</code></li> <li>2. Look for the section and the \$SERVICES keyword in this section. Note if ports are identified and documented in this file.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					3. Port numbers in the range 2000-2999 are reserved for COE segments. Segments should avoid creating sockets with port numbers less than 1000 since these are generally reserved for operating system usage. 4. Review documentation for port or RPC requirements. 5. Segment passes item if required ports are identified and documented in the COEServices segment descriptor.
179.	<b>Item 5-84</b> [3.2.1.1, p. 3-11; Appendix E (related information only)]				<p>[All Segments] <b>The ports, UIDs (UNIX), and RPC addresses being used are those assigned at segment registration time.</b></p> <p>1. Determine from registration database which ports, and RPC addresses are used by segment and permit access to those addresses by adding to baseline configuration; open the designated ports via Control Panel, Network applet, Protocols tab, TCP/IP Protocol properties, Advanced button, Enable Security/Configure button, TCP ports. Existing ports configured to permit use by segments prior to adding segment specific ports are listed below, no UDP ports are permitted in the baseline configuration.</p> <ul style="list-style-type: none"> <li>• 20 FTP Data</li> <li>• 21 FTP Control</li> <li>• 23 Telnet</li> <li>• 53 domain</li> <li>• 115</li> <li>• 137 netbios-ns (netbios name service)</li> <li>• 138 netbios-dgm (netbios Datagram service)</li> <li>• 139 netbios-ssn (netbios Session service)</li> <li>• 143 imap (Internet Message Access Protocol)</li> <li>• 177</li> <li>• 194 irc (Internet relay chat)</li> <li>• 222</li> <li>• 2701</li> <li>• 8080</li> <li>• 11101</li> </ul> <p>2. To identify which ports the segment uses, review the contents of the \$Services keyword beneath the [COEServices] segment descriptor in the SegInfo file: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\ SegInfo. Ports should be the same as those assigned at registration time.</p> <p>3. Segment passes item if no operational problems are encountered while exercising the segments functionality that uses the ports or addresses.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
180.	<b>Item 5-17</b> [5.5.2.3, p. 5-70; 5.10.9, p. 5-159 (related information only)]				<p>[All Segments] <b>The segment does not rename well defined ports (e.g., ftp, ping), or declare new port names which have the same port number as well-defined ports.</b></p> <ol style="list-style-type: none"> <li>1. Check the Drive-finalrpt1.doc for changes to the <code>..\WINNT\system32\drivers\etc\services</code> file segment's source code and supporting configuration and runtime files for the use of hardcoded port assignments. Compare baseline services file in the COE_Eval_Tools directory</li> <li>2. Check the operating system configuration files, such as <code>/etc/services</code>, to ensure that the segment installation procedures made no changes to port assignments.</li> <li>3. Segment passes item if no well defined ports, as listed in the <code>\winnt\system32\drivers\etc\services</code> file, are used for another use then designated for or renamed by the segment.</li> </ol>
181.	<b>Item 3-3</b> [5.5.2.3, p. 5-70; 5.10.9, p. 5-159 (related information only)]				<p>[All Segments] <b>The application does not use hardcoded port assignments and is not sensitive to specific ports other than well-known port assignments (e.g., ftp, ping). If the application uses network services, including standard services such as ftp and ping as well as its own private services, it retrieves the standard service port number(s) by service name.</b></p> <ol style="list-style-type: none"> <li>1. Check delivery letter attachments for comments.</li> <li>2. Check SegInfo <b>COEServices Segment Descriptor</b> or \$SERVICES entry for a port -- see ref. Section 5.5.2.3 for format.</li> <li>3. Check the operating system configuration files, such as <code>/etc/services</code>, to ensure that the application installation procedures made no changes to port assignments.</li> <li>4. Reference results from item 5-84.</li> <li>5. Segment passes if no port assignments, other then ports listed in the <code>\winnt\system32\drivers\etc\services</code> file are found to be hardcoded, meaning not be configurable by the user or administrator.</li> </ol>
182.	<b>Item 5-52</b> [5.10.9, p. 5-159; 5.5.2.11, p. 5-98,102]				<p>[All Segments] <b>The segment only listens on assigned ports, only registers assigned RPC addresses, and for UNIX, only adds assigned system UIDs.</b></p> <ol style="list-style-type: none"> <li>1. Reference findings in item 5-84 to identify what ports, RPCs and UIDs segment uses. PORTS: See if the [COEServices] Descriptor is used. Its purpose is to identify ports to be used by the segment. RPCs: Remote Procedure Calls – RPCs are identified by using the \$OBJUUID and \$UUID keywords of the [DCEServerDef] segment descriptor. See if they are used.</li> <li>2. Next, run port scanner in <code>C:\COE_Eval_Tools</code> directory; see if segment monitors only the designated ports.</li> <li>3. Segment fails if any unregistered ports are monitored/serviced by the segment.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
183.	<b>Level 2-7</b> [8.4, pg., 8-35 # 10 (related information only)]				[All Segments] <b>The application is able to operate properly in an environment where other applications are performing UDP broadcasts.</b>  1. Review documentation. Default GCCS-AF configuration does not have any UDP ports/addresses open. If segment uses UDP install second segment that uses UDP, opening only the required ports/addresses. 2. Segment passes item if it uses no discrepancies are noted during segments evaluation.
184.	<b>Item 3-4</b> [no reference]			√	[All Segments] <b>If the application uses ftp, it can operate in an environment where only anonymous ftp is available.</b>  No evaluation for this item, scheduled for deletion.
185.	<b>Item 3-12</b> [8.1.1, p.8-2 (related information only)]			√	[All Segments] <b>If using RPCs, the application is compatible with the RPC mechanisms supported by the DCE version supplied by the COE.</b>  No DCE versions are supported in COE on NT.
186.	<b>Item 7-31</b> [8, p. 8-1; Appendix A, A-1.1, p. A-2; A-1.2, p. A-3]			√	[All Segments] <b>If the application uses DCE services, only the DCE interfaces defined by the DCE version supported by the COE are used to access those services.</b>  No DCE versions are supported in COE on NT.
187.	<b>Item 8-9</b> [6.7, Item 2, p. 6-31]				[All Segments] <b>(NT) The segment uses common control and dialog functions from Windows NT.</b>  1. Determine if segment uses a graphics user interface. If not, item is not applicable. 2. Go to c:\<h or Program Files>\<segment name>\bin directory 3. For every .exe file, right-click and select QuickView. Review file contents for referenced common functions. Note findings. 4. If both are not found with all files of bin sub-directory, contact developer. If so, see if the segment uses common dialog functions from development environments such as Powerbuilder. If so, segment passes item.
188.	<b>Item 5-56</b> Logo Handbook 6.2.2. Using the Registry				[All Segments] <b>(NT) The segment's registry entry points to the segment's current location on disk.</b> 1. From the Logo Handbook v3D. Review registry for the following path information: In addition to the above requirements, the following behaviors are strongly recommended with regard to registry usage: • Applications should provide the following set of information in the registry. This information will be used by the

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments																																						
					<p>Add/Remove Programs Control Panel to provide a central place for information about the application.</p> <ul style="list-style-type: none"> <li>The registry values in the table below should be written under the following key:  HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\Current Version\Uninstall\NameofApplication  Note the following example of registration information for a Windows NT application:</li> </ul> <table border="1"> <tr> <td>Name of Value</td> <td></td> </tr> <tr> <td>Type</td> <td></td> </tr> <tr> <td>Contains</td> <td></td> </tr> <tr> <td>DisplayName</td> <td></td> </tr> <tr> <td>REG_SZ</td> <td>Sample Application</td> </tr> <tr> <td>UninstallPath</td> <td></td> </tr> <tr> <td>REG_EXPAND_SZ</td> <td>%SYSTEMDRIVE%\Program Files\Sample\uninstall.exe</td> </tr> <tr> <td>ModifyPath</td> <td></td> </tr> <tr> <td>REG_EXPAND_SZ</td> <td>%SYSTEMDRIVE%\Program Files\Sample\modify.exe</td> </tr> <tr> <td>InstallLocation</td> <td></td> </tr> <tr> <td>REG_EXPAND_SZ</td> <td>%SYSTEMDRIVE%\Program Files\Sample</td> </tr> <tr> <td>InstallSource</td> <td></td> </tr> <tr> <td>REG_EXPAND_SZ</td> <td>A:\</td> </tr> <tr> <td>DisplayVersion</td> <td></td> </tr> <tr> <td>REG_SZ</td> <td>1.0a</td> </tr> <tr> <td>VersionMajor</td> <td></td> </tr> <tr> <td>DWORD</td> <td>1</td> </tr> <tr> <td>VersionMinor</td> <td></td> </tr> <tr> <td>DWORD</td> <td></td> </tr> </table>	Name of Value		Type		Contains		DisplayName		REG_SZ	Sample Application	UninstallPath		REG_EXPAND_SZ	%SYSTEMDRIVE%\Program Files\Sample\uninstall.exe	ModifyPath		REG_EXPAND_SZ	%SYSTEMDRIVE%\Program Files\Sample\modify.exe	InstallLocation		REG_EXPAND_SZ	%SYSTEMDRIVE%\Program Files\Sample	InstallSource		REG_EXPAND_SZ	A:\	DisplayVersion		REG_SZ	1.0a	VersionMajor		DWORD	1	VersionMinor		DWORD	
Name of Value																																											
Type																																											
Contains																																											
DisplayName																																											
REG_SZ	Sample Application																																										
UninstallPath																																											
REG_EXPAND_SZ	%SYSTEMDRIVE%\Program Files\Sample\uninstall.exe																																										
ModifyPath																																											
REG_EXPAND_SZ	%SYSTEMDRIVE%\Program Files\Sample\modify.exe																																										
InstallLocation																																											
REG_EXPAND_SZ	%SYSTEMDRIVE%\Program Files\Sample																																										
InstallSource																																											
REG_EXPAND_SZ	A:\																																										
DisplayVersion																																											
REG_SZ	1.0a																																										
VersionMajor																																											
DWORD	1																																										
VersionMinor																																											
DWORD																																											

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>1</p> <p>Publisher REG_SZ Sample Corp</p> <p>ProductID REG_SZ 111-111-111</p> <p>RegOwner REG_SZ Test User</p> <p>RegCompany REG_SZ Test Company</p> <p>HelpTelephone REG_SZ 1-800-555-5555</p> <p>HelpLink REG_EXPAND_SZ %SYSTEMDRIVE%\Program Files\Sample\sample.hlp</p> <p>URLUpdateInfo REG_SZ <a href="http://sample.com/sampleapp/update.html">http://sample.com/sampleapp/update.html</a></p> <p>URLInfoAbout REG_SZ <a href="http://sample.com/sampleapp/default.html">http://sample.com/sampleapp/default.html</a></p> <p>2. Segment passes item if HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Uninstall[ProgramName]&lt;SegmentPrefix&gt; \InstallLocation points to segments current location on disk.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
189.	<b>Item 5-75</b> [5.5.2.4, p. 5-72; 5.5.2.5, p. 5-78]				<p>[All Segments] <b>The segment Community and Comm.deinstall (if applicable) descriptors have been fully tested to ensure that they correctly make the changes indicated, and that they do not inadvertently destroy settings that may have been made by another segment.</b></p> <ol style="list-style-type: none"> <li>1. Review the contents of the [Community] and [Comm.deinstall] segment descriptors in the SegInfo file:</li> <li>2. <code>c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\SegInfo</code></li> <li>3. If both of these keywords are not used, this step is N/A.</li> <li>4. If the [Community] descriptor is used but not the [Comm.deinstall] descriptor, check to see if segment is a permanent segment &lt;with no Deinstall segment descriptor file&gt;. If Deinstall segment descriptor file is present and [Community] descriptor is used but not the [Comm.deinstall] descriptor, segment fails this step.</li> <li>5. If both are used &lt;or if only [Community] descriptor is used with a permanent segment&gt;, examine contents of the [Community] segment descriptor. Ensure the \$APPEND keyword is used to add to community files, rather than \$DELETE or \$REPLACE. If developers choose to use \$DELETE or \$REPLACE, then they should ensure that they delete or replace only those entries to a community file that their segment would have added.</li> <li>6. If [Community] descriptor is used to make changes to the registry, then segment fails step because [Registry] descriptor should be used. – [Community] descriptor is to be used only as a last resort when not other segment descriptor will support.</li> <li>7. From the lower left corner, select Start-Programs-Command Prompt to get a DOS window. MAXIMIZE the DOS window size and type: <code>c:\GO_COMPARE</code> to review script documentation &lt;sized to fit in the maximized window&gt;.</li> <li>8. Then, from <code>c:\</code> prompt, type, using the segment's sheet of [Community] segment descriptor- affected files &lt;developed in &gt;:</li> <li>9. <code>c:\COMPARE &lt;APPLICATION NAME&gt; &lt;SEGMENT PREFIX&gt; DEINSTAL &lt;[Community] descriptor-affected file name&gt;</code> carefully using the documentation. If necessary, refer to , Step 4 to ensure you correctly type application name. The command creates an analysis-results file called <code>DELTA&lt;[Community] descriptor-affected file name&gt;</code> in directory: <code>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\DEINSTAL\EvalData</code> --This script compares the reversed file back to the BASELINE-copied file (in ) of the same name.</li> <li>10. Repeat this command for each [Community] descriptor-affected file. Open each analysis-results file associated with each affected file in the location specified above. Ensure that each analysis-results file states “no differences encountered”. If differences are only “commented out” lines in the file, segment does not fail item because COEInstaller will not remove comment lines. If any other differences are found, segment fails item.</li> </ol>
190.	<b>Item 5-50</b> [5.2, p. 5-12; 5.4.2, p. 5-35; 9.3, p. 9-8]				<p>[All Segments] <b>The segment completely separates the development environment from the runtime environment, and no development environment tools, scripts, or other executables are required at runtime.</b></p> <ol style="list-style-type: none"> <li>1. The development environment must be separate from the runtime environment -- I&amp;RTS Section 6.2 provides a brief discussion. Review the directory structure for a \lib or \include directory, if found review files for development environment files. Review \bin directory for Powerbuilder (.pb files), or other development environment runtime files.</li> <li>2. Segment fails this item if any development files are found.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
191.	<b>Item 8-15</b> [Appendix A: A-1.1, p. A-2; Appendix F]				[All Segments] <b>The segment uses only the DBMS provided by the COE.</b>  Segment passes item if it uses no DBMS or one of the DBMS's distributed as part of the COE.
192.	<b>Item 1-16</b> [No reference]				[All Segments] <b>If an RDBMS is used, it supports FIPS-127-2 SQL queries.</b>  1. Applies to all segments that must access a Relational database, whether the RDBMS is a segment of the application or not -- e.g., must know about the database being accessed by any segment. Check delivery letter and attachments (VDD). If the RDBMS not part of segment delivery, check previous/ existing certification of RDBMS (through CM). 2. Segment passes item if the RDBMS used supports FIPS-127-2 SQL queries.
193.	<b>Item 7-26</b> [JTA 2.2.2.1.3]				[All Segments] <b>The segment uses only FIPS-127-2 SQL-defined interfaces to access the RDBMS query services.</b>  1. Reference segment documentation including the DDD to verify that the segment uses only FIPS-127-2 SQL-defined interfaces to access the query services provided by the RDBMS. 2. Segment passes this item if the DBMS is segmented and part of the COE infrastructure and is accessed through routines issued with the DBMS segment.
194.	<b>Item 5-23</b> [4.2.7, p. 4-19]				[All Segments except database segments] <b>Application segments that access databases operate correctly from any COE-compliant platform and are not required to be installed on a database server.</b>  Segment passes item if it does not require to be installed on a database server.
195.	<b>Item 2-14</b> [no reference]				[Database Segments Only] <b>Database updates operate correctly with DBMS security audits enabled.</b>  1. Using test data and test suite provided with segment log into database as a test user and conduct two record updates. Verify updates using DBA account. 2. Segment passes item if, with security audits enabled, updates to records/tables being audited are updated correctly.
196.	<b>Item 2-16</b> [4.0, p. 4-3 note]				[Database Segments Only] <b>Database transactions implement strict two-phase locking to maintain data integrity.</b>  Segment passes item if database transactions implement strict two-phase locking to maintain data integrity.
197.	<b>Item 2-15</b> [4.2.4, p. 4-10; 4.2.9,				[Database Segments Only] <b>The database is recoverable to a consistent state in the event of DBMS server, network or client application failure. This includes both hardware and software failures.</b>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	p. 4-21(both references provide related information only)]				<ol style="list-style-type: none"> <li>Using test data and test suite verify data accuracy after an induced hardware failure (turn off power to server in middle of a table update) and software failure (disconnect server network connection while middle of a table update initiated by a client).</li> <li>Segment passes item if database is recoverable to a consistent state after each induced failure..</li> </ol>
198.	<b>Item 7-30</b> [no reference]				<p>[RDBMS and Data Segments only] <b>The database server segment provides a reload capability and a non-destructive update capability.</b></p> <ol style="list-style-type: none"> <li>Segment passes this item if the RDBMS is a DISA approved COE infrastructure RDBMS.</li> <li>If above item 1 does not apply examine segments data reload capability and non-destructive update capability. Segment passes if both capabilities are implemented.</li> </ol>
199.	<b>Item 3-11</b> [4.1, p. 4-4; 4.2.8, p. 4-21]				<p>[All Segments] <b>The application does not modify the user's DBMS environment as established by the DBMS COE-component segment.</b></p> <ol style="list-style-type: none"> <li>Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt</li> <li>Review contents of <b>Hd_delt.txt</b> file, examining what files get modified in installation. There should be no files modified in the previously loaded DBMS COE-component segment directory structure. If any are found, segment may fail 5-100, 6-10, or 5-13, etc.</li> <li>Focus search for modifications to files that contain DBMS environment variables. Also, search registry section.</li> <li>If any modifications to these files are found, segment fails step.</li> <li>Segment passes if no environment variable-containing files/ registry keys of the DBMS COE-component segment are modified.</li> </ol>
200.	<b>Item 5-37</b> [no reference provided]				<p>[Database &lt;or Software&gt; Segments Only] <b>Operations that set or redirect the user's DBMS environment variables take place only within the application's execution space.</b></p> <p>Segment passes item if it passes above checklist item 3-11.</p>
201.	<b>Item 5-33</b> [5.9.1.2.2, p. 5-149]				<p>[RDBMS and Data Segments only] <b>Scripts are provided for the DBA's use to add, modify, and remove user privileges. These scripts are documented and the documentation is submitted to the SSA with the segment.</b></p> <ol style="list-style-type: none"> <li>These scripts are normally provided under /h/&lt;segment_name&gt;/bin or /h/&lt;segment_name&gt;/install. This information should be provided in the System Administrator's Manual (SAM) to show the user how to use these scripts after the database has been installed. If not, then it should be written up as a note.</li> <li>Segment passes this item if scripts for the DBA are provided and documented.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
202.	<b>Item 5-35</b> [5.6.3.1, #7, p. 5-139]				<p>[RDBMS and Data Segments only] <b>Grants are not made to public or general purpose users (e.g. Oracle's PUBLIC user).</b></p> <ol style="list-style-type: none"> <li>Grants (access to the database and data tables in the database) should only be given to the profiles/groups established by the database segment -- not to individual userids. This can be checked by reviewing the grant (add_user) scripts normally found in the database server segment of the application under /h/&lt;segment_name&gt;/ bin or /h/&lt;segment_name&gt;/install directories to ensure that the userid provided to run the scripts is attached to a profile or group name -- and that the add_user script does not invoke another sqlplus script that establishes grants for the userid to the database.</li> <li>Segment passes item if no grants are made to public or general purpose users.</li> </ol>
203.	<b>Item 6-21</b> [4.3.6, p. 4-37 (related information only); 5.6.3.1, Item 7, p. 5-139; Appendix F: F-2.3.8, p. F-13; F-3.3.6, p. F-18]				<p>[RDBMS and Data Segments only] <b>Grants are made to database roles/groups, not user accounts or general-purpose users (e.g., Oracle's PUBLIC user).</b></p> <ol style="list-style-type: none"> <li>Grants (access to the database and data tables in the database) should only be given to the profiles/groups established by the database segment -- not to individual userids. This can be checked by reviewing the grant (add_user) scripts normally found in the database server segment of the application under /h/&lt;segment_name&gt;/Scripts to ensure that the userid provided to run the scripts is attached to a profile or group name -- and that the add_user script does not invoke another sqlplus script that establishes grants for the userid to the database.</li> <li>Segment passes item if all grants are made to database roles/groups and not specific user accounts or general purpose users.</li> </ol>
204.	<b>Item 7-24</b> [4.2.5.3, p. 4-17; 4.3.6, p. 4-37 (both provide related information only); 5.6.3.1, Item 7, p. 5-139]				<p>[RDBMS and Data Segments only] <b>Database roles/groups are specific to application privileges, not general purpose.</b></p> <ol style="list-style-type: none"> <li>All roles/groups created by the database segment must be unique to the application -- check the post_install to ensure that all roles/groups are attached or are dependent on the segment -- further check the deinstall to ensure all roles/groups are removed.</li> <li>Review documentation delivered with the segment and/or at segment registration to determine if the segment defines roles. (Ideally, roles should be defined with the \$ROLES keyword in the Database section of the SegInfo descriptor file.)  <p style="margin-left: 40px;">Using this information, examine the system tables in the appropriate database segments to identify the roles that are defined.</p> <p style="margin-left: 40px;">ORACLE: <i>select * from DBA_ROLES</i></p> <p style="margin-left: 40px;">SYBASE: <i>select * from sysroles</i></p> </li> <li>Segment passes item if application privileges are assigned to database roles/groups and not general purpose users accounts.</li> </ol>
205.	<b>Item 5-27</b> [4.3.1.2, p. 4-22; 5.6.3.1, p. 5-138]				<p>[RDBMS and Data Segments only] <b>Database owner accounts do not have database administrator privileges.</b></p> <ol style="list-style-type: none"> <li>The post_install should have a statement (near the end) such as revoke dba from &lt;owner_name&gt;:. Check the post_install.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>Additionally, sign-on to the RDBMS (e.g., sqlplus /) and check the dba status.</p> <p>2. Segment passes item if database owner accounts do not have database administrator privileges.</p>
206.	<p><b>Item 5-39</b> [4.3.6 p. 4-38]</p>				<p>[Database Segments only] <b>Application-level permissions are not granted to DBA accounts or to database roles used for DBMS administration.</b></p> <p>1. Review the data dictionary to verify that application-level privileges have not been granted.</p> <p>ORACLE:</p> <pre>select * from DBA_ROLES select * from DBA_ROLE_PRIVS select * from DBA_SYS_PRIVS select * from DBA_TAB_PRIVS select * from ROLE_ROLE_PRIVS select * from ROLE_SYS_PRIVS select * from ROLE_TAB_PRIVS select * from SESSION_PRIVS select * from SESSION_ROLES</pre> <p>SYBASE:</p> <pre>select * from sysprotects select * from sysloginroes select * from sysroles</pre> <p>2. Segment passes item if segment level permissions are not granted to DBA accounts or to DBMS administration roles.</p>
207.	<p><b>Item 5-36</b> [5.6.3.1, #7, p. 5-139]</p>				<p>[RDBMS and Data Segments only] <b>Only the owner and the DBA are able to administer grants.</b></p> <p>1. This can be checked to ensure that only the DBA (oradba, etc) or sysadmin (not root) can run the grant scripts under /h/&lt;segment_name&gt;/Scripts -- and that only the dba userid and the owner userid can accomplish a sqlplus &gt;grant= statement in sqlplus. If any other userid can do either of these (exclude root) then the intent of this section is not met.</p> <p>2. Review the data dictionary to verify that only the owner and the DBA have grant authority.</p> <p><b>ORACLE:</b> select * from DBA_ROLES select * from DBA_ROLE_PRIVS</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<pre>select * from DBA_SYS_PRIVS select * from DBA_TAB_PRIVS select * from ROLE_ROLE_PRIVS select * from ROLE_SYS_PRIVS select * from ROLE_TAB_PRIVS select * from SESSION_PRIVS select * from SESSION_ROLES</pre> <p><b>SYBASE:</b></p> <pre>select * from sysprotects select * from sysloginroles select * from sysroles</pre> <p>3. Segment passes item if only the owner and the DBA are able to administer grants.</p>
208.	<b>Item 6-28</b> [4.3.7.3 p. 4-41]				<p>[RDBMS and Data Segments only] <b>Database roles that span multiple database segments are defined in their own segments.</b></p> <ol style="list-style-type: none"> <li>1. Review documentation delivered with the segment and/or at segment registration to determine if the segment defines roles. (Ideally, roles should be defined with the \$ROLES keyword in the Database section of the SegInfo descriptor file.)</li> <li>2. If the segment references external objects, they should be described following the \$REFERENCES keyword or the \$ACCESSES keyword.</li> <li>3. Using this information, examine the system tables in the appropriate database segments to be sure that the roles used are defined in their own segments.</li> </ol> <p>ORACLE: <i>select * from DBA_ROLES</i></p> <p>SYBASE: <i>select * from sysroles</i></p> <p>4. Segment passes item if database roles that span multiple database segments are defined in their own segments</p>
209.	<b>Item 5-30</b> [5.9.1.3, p. 5-150]				<p>[Database Segments only] <b>Segments do not modify the core DBMS instance's configuration provided by the DII COE, but may use it as a template to create other DBMS instance segments.</b></p> <ol style="list-style-type: none"> <li>1. Review the scripts residing under the install directory of the database segment. Verify that the scripts start the database in its maintenance mode.</li> <li>2. Applies to all database segments in that the intent is to use the common database to the application's data -- and the intent is that the data will be loaded into the existing RDBMS instance that provides common data for the application..</li> <li>3. Check with the developer and segment sponsor if the DB segment is attempting to load to a unique instance of a RDBMS --</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					ensure that it must be unique -- and that <i>there is absolutely no common, available RDBMS</i> instance into which it ca be loaded. 4. Segment passes item does not modify the core DBMS instance's configuration provided by the DII COE.
210.	<b>Item 5-34</b> [5.9.2, p. 5-151]				[RDBMS and Data Segments only] <b>The segment does not modify another segment's database schema.</b>  <ol style="list-style-type: none"> <li>For each database application segment, review segment documentation to determine if the SHADE Chief Engineer has approved any requests for inter-database rules or constraints involving the segment under certification.</li> <li>For all database segments referenced by the application segment under certification, extract the segment schema object names from the data dictionary (e.g., DBA_OBJECTS view in Oracle or sysobjects table in Sybase).</li> <li>Do a Find <i>for the words</i>, <i>alter</i>, <i>index</i>, <i>insert</i>, <i>update</i>, and <i>delete</i> in <i>/h/&lt;SegDirName&gt;/install/*</i> where <i>&lt;SegDirName&gt;</i> is the segment's home directory under <i>/h</i>.</li> <li>Search each database application segment script for the segment under certification for <i>alter</i>, <i>index</i>, <i>insert</i>, <i>update</i>, or <i>delete</i> keywords that reference objects in the referenced segment's data dictionary.</li> <li>Look at <i>afterload\hddelt.txt</i> file use hard drive snapshot tool to determine if changes were made to schema files in other segments.</li> <li>Segment passes item if it does not modify any other segment's database schema.</li> </ol>
211.	<b>Item 5-22</b> [4.2.7, p. 4-19]				[RDBMS and Data Segments only] <b>Application segments are separate from their corresponding database segment.</b>  Segment passes this item if segment under evaluation is packaged separately from the corresponding database segment, fails if the database installation, schema and DBA management scripts are bundled with the segment under evaluation.
212.	<b>Item 5-32</b> [5.9.1.3, p. 5-150]				[RDBMS and Data Segments only] <b>Any modified versions of DBMS COE tools reside with the application's client segment.</b>  <ol style="list-style-type: none"> <li>Review <i>\h&lt;SegDirName&gt;\install</i> for COE tools/scripts.</li> <li>Segment passes if no tools are found or if the tools have been modified to support only the segment under evaluations.</li> </ol>
213.	<b>Item 5-40</b> [5.5.2.9, p. 5-85; 5.4.5, p. 5-44; 4.0, p. 4-1 (related information only)]				[RDBMS and Data Segments only] <b>Database segments are identified as universal, unique, or sharable according to their potential for sharing.</b>  <ol style="list-style-type: none"> <li>Review <i>\h&lt; SegDirName&gt; \SegDescrip\SegInfo</i> for either (but not both) <i>\$\$SCOPE: UNIQUE</i> or <i>\$\$SCOPE: SHARED</i>,</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					then the database is supposed to be unique or shareable as the case may be. 2. Segment passes this item if database is identified as universal, unique or sharable.
214.	<b>Item 7-29</b> [4.2.4, p. 4-11]				[Database Segments only] <b>All constraints and business rules are in the database, not the applications.</b>  1. It may be difficult to determine that rule-based logic is not in the segment software but is created as constraints on database tables/data elements (especially without source code). Further, it is difficult to determine if rule-based logic in the software could or should be moved into database table constraints. Segment passes this item if constraints and business rules are in the database. 2. <b>First check to see if constraints exist on the tables/data elements established by the load of the database segment.</b> If they do, then the intent of this statement is probably met. If any questions still exist, review the reference, and discuss the situation with the developer to determine the thought process they used in establishing software logic versus database constraints -- and the intent of the I&RTS to enhance client-server independence. If all else fails ask the developer. 3. Segment passes item if all constraints and business rules are in the database and not the segment.
215.	<b>Item 7-27</b> [4.3.3, p. 4-25 4.3.4, p.4-27]				[Database Segments only] <b>Data object creation script files follow the specified structure and naming convention.</b>  1. Examine the <i>/h/SegDirName/Scripts</i> directory to determine if the database object creation scripts are organized in accordance with <i>I&amp;RTS</i> paragraph 4.33. 2. Verify that the names of the scripts are the same as the names of the objects they create. 3. Verify that the scripts implement a case statement that executes on an input argument from <i>I&amp;RTS</i> Table 4.1. 4. Verify that a definition script for a table contains constraints, triggers, and indexes for the table. 5. Verify that views, other than authorized legacy views, are created in their own scripts. 6. Verify that rules, stored procedures, packages, and other objects each have their own script. 7. Segment passes this item if above items 2 to 6 verify true.
216.	<b>Item 6-29</b> [4.3 p. 4-22]				[Database Segments only] <b>Data objects and elements follow naming conventions specified in Chapter 4.</b>  Check the database tables, columns, and views to see that naming conventions are followed per reference (Uppercase, meaningful, start with a letter, 1-30 characters except table names (1-26), and not reserved words.)  <b>(Oracle7.3)</b> a) From lower left corner, select Start-Programs-Oracle for Windows NT-Oracle SQL Plus b) Enter <DBA Name>, <DBA Password>, <Database Name>. Select OK.

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>c) At "SQL&gt;" command line prompt, type as the following query:  <b>select table_name, column_name, from dba_tab_columns where owner not in ('SYS','SYSTEM');</b></p> <p>d) Select Enter and view results. Segment passes step if no discrepancies are found per reference.</p> <p><b>(Informix7.2.2)</b> a) From lower left corner, select Start-Programs-Informix Administration Tools-SQL Editor</p> <p>e) At "Server/Database:" dropdown list box at right top of SQL Editor window, navigate to database.</p> <p>f) Enter &lt;Informix User Name&gt; and &lt;Informix User Password&gt;. Then, select individual database.</p> <p>g) In the SQL window, type: <b>select * from systables;</b> Select ? and switch to Results tab. Scroll down list to find out where mission application tables start (after system tables) and note tabid value of last "non-mission application" table. Scroll to end of list and find out where mission application tables end (possibly before a few system tables at the end) and note tabid value of first "non-mission application" table. Note: if there are no system tables at end, delete last "and" phrase from the query below and end query with ";"</p> <p>h) Return to SQL tab and type:  <b>select tablename, colname, from systables, syscolumns where systables.tabid = syscolumns.tabid and systables.tabid &gt; '&lt;tabid before first mission application table&gt;' and systables.tabid &lt; '&lt;tabid after last mission application table&gt;';</b></p> <p>i) Select ? , switch to results tab, and view results. Segment passes step if no discrepancies are found per reference.</p> <p>j) If segment fails step, go to File pulldown menu and select 'Save As Data'. Save query results as:  <b>c:\Seg_Eval\&lt;APP. NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\&lt;SegName&gt;6-29QueryResults.txt</b></p> <p>l) In SQL Editor return to SQL tab, highlight and copy the query text.</p> <p>m) Open the above query results file using Notepad and paste query to top of file. Change font in Notepad to 'Fixedsys'. Format text columns as necessary for readability.</p> <p>n) Add column headers for data as follows. Save and print file:  <b>Table/View Name                      Column Name</b></p> <p><b>(Sybase)</b> a) From lower left corner, select Start-Programs- TBD          (SQL Server) - TBD</p>
217.	<b>Item 6-27</b> [2.1.4, Item 7 description, p.2-26; 2.1.6, Item 3, p. 2-34; 3.2.2.1, p. 3-19(all above provide related information only); 4.3.4.2, p.4-28]				<p>[Database Segments only ] <b>The segment either implements DOD 8320 data standards, or has an approved plan for doing so. (The migration plan must be coordinated with the DII COE Chief Engineer for any data fields that are part of Universal or Shared data segments. Data fields that are part of a Unique data segment do not require DII COE Chief Engineer approval.)</b></p> <ol style="list-style-type: none"> <li>Determine if the segment data objects are in the DoD Data Model (DDM). If data items are in the DoD Data model, they are, by default, standardized IAW DoD 8320 guidance and segment passes item.</li> <li>If data items are not in the DDM and there is not an Air Force Chief Engineer approved plan in documentation to implement</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					the standards, segment fails item.
218.	<b>Item 7-28</b> [2.1.4, Item 7 description, p.2-26; 2.1.6, Item 3, p. 2-34; 3.2.2.1, p. 3-19 (all above provide related information only); 4.3.4.2, p.4-28]				<p>[Database Segments only] <b>The data objects contained within a database segment are standardized according to DOD 8320 guidance.</b></p> <p>Determine if the data objects are in the DoD Data Model (DDM). If data items are in the DoD Data model, they are, by default, standardized IAW DoD 8320 guidance and segment passes item. If not, segment fails item.</p>
219.	<b>Item 8-12</b> [4.3.4.2, p. 4-28]				<p>[Database Segments only] <b>Data elements are chosen from Joint standards and use the data type, field width, and units of measure prescribed in the standard.</b></p> <p>1. Review developers input to Evaluation Questionnaire on data element standards. Segment passes this item if where all possible data elements are derived from a Joint standard and use the data type, field width, and units of measure from the standard. Note: To verify this, use the DoD CIM 8001 and 8001.M documentation for standard naming conventions and logical database modeling. The GCCS core database (not to include the GSORTS data set in the GCCS Oracle instance) complies with DoD standards.</p> <p>2. A dump or review of the database data dictionary and developer documentation may assist in determining compliance with this requirement -- also a copy of the database logical/physical models will assist. This will be time consuming and labor intensive process if documentation is not provided/available. All needed information (e.g., data tables, data element name/type/size, relationships from constraints, etc) can be obtained from the database itself using script files.</p> <p>3. Segment passes item if data elements were chosen from Joint standards and use the data type, field width, and units of measure prescribed in the standard.</p>
220.	<b>Item 7-22</b> [3.2.2.2, p. 3-20; 4.3.4, p. 4-27]				<p>[Database Segments only] <b>Data objects within the segment do not duplicate those already contained in available Universal database segments.</b></p> <p>1. Review item 6-29 findings for naming conventions. Review developers in put to Evaluation Questionnaire on data standards and if SHADE was used in the data schema design.</p> <p>2. Segment passes this item if data objects do not duplicate those already contained in available Universal database segments.</p> <p>Note: If any object table or constraint is duplicated, it will be found as an error in the post_install log for the database &lt;only if both are present&gt;-- that is the new table name will already exist and not load for the new owner. Check the installation log for</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					errors.
221.	<b>Item 7-25</b> [2.1.2.5, p. 2-15; 4.3.4, p.4-27]				<p>[Database Segments only] <b>The segment does not duplicate any data available from the SHADE repository, except for performance reasons, unless approved by the DII COE Chief Engineer.</b></p> <ol style="list-style-type: none"> <li>For all database segments referenced by the application segment under certification, extract the segment schema object names from the data dictionary (e.g., DBA_OBJECTS view in Oracle or sysobjects table in Sybase).to determine if the segment duplicates (same meta data but different name) any other data available from the SHADE repository.</li> <li>If duplicate data is identified in step two that is not documented in step 1, examine the segment descriptor files to determine if DII-COE Chief Engineer approval has been obtained. more +/KEY /h/SegDirName/SegDescrip/SegInfo/Direct</li> <li>Segment passes this item if there is no duplicate data from the SHADE repository, unless approved by the Air Force COE Chief Engineer.</li> </ol>
222.	<b>Item 8-14</b> [2.1.2.5, p. 2-15; 4.3.4, p.4-27]				<p>[Database Segments only] <b>The segment does not duplicate any data already maintained in the SHADE repository or the COE-based target system, unless for performance reasons and only as approved by the DII COE Chief Engineer.</b></p> <p>The objective is to eliminate duplicate data and have distributed data accessible to all application segments.</p> <ol style="list-style-type: none"> <li>Reference findings in item 7-25.</li> <li>Examine on-line database and documentation vs SHADE. For all database segments referenced by the application segment under certification, extract the segment schema object names from the data dictionary (e.g., DBA_OBJECTS view in Oracle or sysobjects table in Sybase).</li> <li>Review the data sets in the segment database against the known data sets of certified database -- if duplication (especially in table name, data element, etc.) exist, then consider that this requirement is not met until the developer and segment sponsor (government sponsor/user of the segment) can determine that the data needed (duplicated) is not and will not become accessible to them -- <i>if duplication is found but is allowed because of operational considerations then a comment in the final report must highlight this finding.</i></li> <li>If duplicate data is identified in step two that is not documented in step 1, examine the segment descriptor files to determine if DII-COE Chief Engineer approval has been obtained. more +/KEY /h/SegDirName/SegDescrip/SegInfo/Direct</li> <li>Segment passes this item if there is no duplicate data from the SHADE repository or the COE-based target system, unless approved by the Air Force COE Chief Engineer.</li> </ol>
223.	<b>Item 6-30</b> [4.3.4 p. 4-27]				<p>[Database Segments only] <b>Definitions for schema components are provided in the DBMS data dictionary.</b></p> <ol style="list-style-type: none"> <li>Locate data dictionary on-line. Look for it in contents of Database Description Document, if provided.</li> <li>Determine per below if definitions are provided in database dictionary comments are for all database schema components:</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>data stores, tables, elements (columns), views, constraints, stored procedures and triggers. If constraints are turned off, this fact must be noted in the Release notes.</p> <p><b>(Oracle)</b></p> <p>a) From lower left corner, select Start-Programs-Oracle for Windows NT-Oracle SQL Plus</p> <p>b) Enter &lt;DBA Name&gt;, &lt;DBA Password&gt;, &lt;Database Name&gt;. Select OK.</p> <p>c) At "SQL&gt;" command line prompt, type the following commands and queries:</p> <pre> <b>spool c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\&lt;SegName&gt;6-30QueryResults.txt</b> ...&lt;to begin collecting in a file "all that follows"&gt; <b>select table_name, comments from dba_tab_comments where owner not in ('SYS','SYSTEM');</b> <b>select table_name, column_name, comments from dba_col_comments where owner not in ('SYS','SYSTEM');</b> <b>GET DATA ON CONSTRAINTS, STORED PROCEDURES AND TRIGGERS.</b> <b>spool off</b> ...&lt;to "turn off" spooling capability&gt; </pre> <p><b>(Informix)</b></p> <p>a) From lower left corner, select Start-Programs-Informix Administration Tools- Command Line Utilities</p> <p>b) At prompt, type: <b>dbaccess &lt;database name&gt; c:\Informix\etc\xpq4_is.sql</b></p> <p>c) Let command execute, the close Command Line Utilities application.</p> <p>d) From lower left corner, select Start-Programs-Informix Administration Tools-SQL Editor</p> <p>e) At "Server/Database:" dropdown list box at right top of SQL Editor window, navigate to database.</p> <p>f) Enter &lt;Informix User Name&gt; and &lt;Informix User Password&gt; and select individual database.</p> <p>g) In SQL data entry window, type:</p> <pre> <b>select table_name, remarks from tables where table_schema not in ('informix');</b> <b>select table_name, column_name, remarks from columns where table_schema not in ('informix');</b> </pre> <p>h) If any records are returned segment fails step. Go to File pulldown menu and select 'Save As Data'.</p> <p>i) Save query results as:</p> <pre> <b>c:\Seg_Eval\&lt;APP. NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\&lt;SegName&gt;6-30QueryResults.txt</b> </pre> <p>j) In SQL Editor return to SQL tab, highlight and copy query.</p> <p>m) Open the above query results file and paste query to top of file. Format for readability.</p> <p>k) Line up columns in file and add column headers for data as follows:</p> <pre> <b>Table Name      Column Name      Column Type (3=float,4=small float,</b> <b>5=decimal,8=money)</b> </pre> <p>l) If any records are returned, segment fails step. Print out results and attach to test report.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>(Sybase) a) From lower left corner, select Start-Programs- TBD (SQL Server) - TBD</p> <p>3. Review results in spooled file. If comments are missing on any table, column, view or other schema component, segment fails item.</p> <p>4. If segment fails item, print out query results to attach to test report.</p> <p>SYBASE: <i>select *from syscomments</i></p>
224.	<p><b>Item 6-23</b> [4.3.4.2, page 4-28; Appendix F, p. F-23]</p> <p><b>Item 6-23</b> [4.3.4.2, page 4-28; Appendix F, p. F-23]</p> <p>(cont.)</p>				<p>[Database Segments Only] <b>Data elements do not use machine-dependent data types.</b></p> <p>1. Check the database tables to see the data element types.</p> <p><b>(NT) (Oracle7.3)</b></p> <p>a) From lower left corner, select Start-Programs-Oracle for Windows NT-Oracle SQL Plus b) Enter &lt;DBA Name&gt;, &lt;DBA Password&gt;, &lt;Database Name&gt;. Select OK. c) At “SQL&gt;” command line prompt, type as the following query: <b>select table_name, column_name, data_type from dba_tab_columns where owner not in ('SYS','SYSTEM') and data_type not in ('CHAR','VARCHAR2','LONG','DATE','RAW','LONG RAW','ROWID','MLSLABEL');</b> d) Select Enter and view results.</p> <p><b>(NT) (Informix7.2.2)</b> a) <i>ONLY IF NOT ALREADY DONE IN A PREVIOUS STEP, COMPLETE STEPS a) THROUGH c).</i> <i>OTHERWISE GO TO STEP d).</i> From lower left corner, select Start-Programs-Informix Administration Tools-Command Line Utilities b) At prompt, type: <b>dbaccess &lt;database name&gt; c:\Informix\etc\xpg4_is.sql</b> c) Close Command Line Utilities application. d) From lower left corner, select Start-Programs-Informix Administration Tools-SQL Editor e) At “Server/Database:” dropdown list box at right top of SQL Editor window, navigate to database. f) Enter &lt;Informix User Name&gt; and &lt;Informix User Password&gt;. Then, select individual database. g) In the SQL window, type: <b>select * from systables;</b> Select ? and switch to Results tab. Scroll down list to find out where mission application tables start (after system tables) and note tabid value of last “non-mission application” table. Scroll to end of list and find out where mission application tables end (before a few system tables at the end) and note tabid value of first “non-mission application” table. h) Return to SQL tab and type: <b>select tablename, colname, coltype from systables, syscolumns where coltype in ('3','4','5','8') and systables.tabid =</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments																											
					<p><b>systcolumns.tabid and systables.tabid</b> &gt; '&lt;tabid before first mission application table&gt;' and <b>systables.tabid</b> &lt; '&lt;tabid after last mission application table&gt;';</p> <p>i) Select ? , switch to results tab, and view results.</p> <p>j) If any records are returned segment fails step. Go to File pulldown menu and select 'Save As Data'.</p> <p>k) Save query results as:  <b>c:\Seg_Eval\&lt;APP. NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\&lt;SegName&gt;6-23QueryResults.txt</b></p> <p>l) In SQL Editor return to SQL tab, highlight and copy query.</p> <p>m) Open the above query results file and paste query to top of file. Format for readability.</p> <p>n) Line up columns in file and add column headers for data as follows:  <b>Table Name      Column Name      Column Type (3=float,4=small float, 5=decimal,8=money)</b></p> <p>o) Print file and attach to test report.</p> <p>(NT) (Sybase) a) From lower left corner, select Start-Programs- &lt;please e-mail approach to <a href="mailto:warehamj@slidell.disa.mil">warehamj@slidell.disa.mil</a> &gt;</p> <p>2. If Segment uses the following machine dependent data types, segment fails step:</p> <table border="0"> <thead> <tr> <th><u>Sybase</u></th> <th><u>Informix</u></th> <th><u>Oracle</u></th> </tr> </thead> <tbody> <tr> <td>float (p)</td> <td>DEC</td> <td>FLOAT</td> </tr> <tr> <td>double precision</td> <td>DECIMAL coltype = 5</td> <td>FLOAT(b)</td> </tr> <tr> <td>real</td> <td>DOUBLE PRECISION</td> <td>NUMBER(*,#) -- where * is any digit and # is any positive integer.</td> </tr> <tr> <td></td> <td>FLOAT(n) coltype = 3</td> <td></td> </tr> <tr> <td></td> <td>SMALLFLOAT coltype =4</td> <td></td> </tr> <tr> <td></td> <td>MONEY(*,#) -- where * is any digit and # is any positive integer. coltype = 8</td> <td></td> </tr> <tr> <td></td> <td>NUMERIC(*,#) -- where * is any digit and # is any positive integer.</td> <td></td> </tr> <tr> <td></td> <td>REAL</td> <td></td> </tr> </tbody> </table> <p>3. (Oracle only) If segment fails step, perform the following to print out query results to attach to test report.  From the "SQL&gt;" command line prompt, type:</p> <p>A. SPOOL c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\ AFTRLOAD\&lt;SegName&gt;6-23QueryResults.txt      ...&lt;to begin spooling to a file "all that follows"&gt;</p> <p>B.      L      ...&lt;to list "just executed" query&gt;</p> <p>C.      /      ...&lt;to reexecute query&gt;</p> <p>D. SPOOL OFF      ...&lt;to "turn off" spooling capability&gt;</p>	<u>Sybase</u>	<u>Informix</u>	<u>Oracle</u>	float (p)	DEC	FLOAT	double precision	DECIMAL coltype = 5	FLOAT(b)	real	DOUBLE PRECISION	NUMBER(*,#) -- where * is any digit and # is any positive integer.		FLOAT(n) coltype = 3			SMALLFLOAT coltype =4			MONEY(*,#) -- where * is any digit and # is any positive integer. coltype = 8			NUMERIC(*,#) -- where * is any digit and # is any positive integer.			REAL	
<u>Sybase</u>	<u>Informix</u>	<u>Oracle</u>																														
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	REAL																															

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
225.	<b>Item 5-28</b> [5.9.2, p.5-151]				<p>[Database Segment only] <b>Separate segments are provided to create required database dependencies. These segments are executed by the owning database(s).</b></p> <ol style="list-style-type: none"> <li>1. Review \h\<segdirname&gt;\segdescrip\seginfo [requires]="" descriptor.<="" file="" li=""> <li>2. Segment passes this item if required data support is listed in the requires descriptor. The segment fails this item if the data or scripts to install the data into an RDBMS is included in the segment.</li> </segdirname&gt;\segdescrip\seginfo></li></ol>
226.	<b>Item 6-25</b> [5.4.5, p. 5-44; 5.4.12, p. 5-53; 5.5.2.9, p. 5-81; 5.9.2 p. 5-151]				<p>[Database Segment Only] <b>External object dependencies are listed under the Database descriptor.</b></p> <ol style="list-style-type: none"> <li>a. Review the SegInfo segment descriptor file at: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\ SegInfo.</li> </ol> <ol style="list-style-type: none"> <li>1. Locate the required [Database] Segment Descriptor section in SegInfo file. Contents should comply with references.</li> <li>2. Documentation search results should be consistent with results found online. If documentation is incorrect, document a note.</li> <li>3. Segment passes if online results comply with references and there are no discrepancies.</li> </ol>
227.	<b>Item 6-24</b> [4.3.7, p 4-38; 5.9.2, p. 5-151]				<p>[Database Segments only] <b>The segment does not create data objects in other segments except through documented inter-database dependencies (e.g., triggers) and published APIs.</b></p> <ol style="list-style-type: none"> <li>1. Review \h\<segdirname&gt;\install be="" c:\&lt;h="" create="" databases.="" dependencies="" documented="" external="" file<="" files&gt;\&lt;segment="" for="" in="" li="" must="" name&gt;\segdescrip\="" notes="" or="" program="" release="" scripts="" that="" the="" triggers=""> <li>2. Segment passes is item if no data objects are created in other segments or if there are, then the dependencies are documented and executed through published APIs.</li> </segdirname&gt;\install></li></ol>
228.	<b>Item 5-38</b> [4.3.7.1, p. 4-40]				<p>[Database Segments only] <b>No indices are created on another segment's database tables.</b></p> <ol style="list-style-type: none"> <li>1. Review \h\<segdirname&gt;\install create="" external="" for="" indices,="" li="" look="" references="" scripts="" tables.<="" that="" to=""> <li>2. For each database application segment, review segment documentation to determine if the SHADE Chief Engineer has approved any requests for inter-database rules or constraints involving the segment under certification.</li> <li>3. For all database segments that are referenced by the application segment under certification, extract the segment schema object names from the data dictionary (e.g., DBA_OBJECTS view in Oracle or sysobjects in Sybase).</li> <li>4. Search each database application segment script for the segment under certification for <i>index</i> keywords that reference objects other than those in the referenced segment's data dictionary.</li> </segdirname&gt;\install></li></ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					5. Segment passes this item if no indices are created on another segment's database tables.
229.	<b>Item 6-49</b> [no reference]				<p><b>(NT) The segment does not use polling as a synchronization technique.</b></p> <ol style="list-style-type: none"> <li>1. Review questionnaire for response to this question. Ask developer if polling of resource was used.</li> <li>2. Segment passes this item if polling of resource (data , hardware) was not done.</li> </ol>
230.	<b>Item 5-45</b> [no reference identified]				<p>[All Segments except data segments] <b>The segment is launched from the same desktop provided with the COE.</b></p> <p>Segment passes this item if the segment can be launched from an icon on the Desktop, or Quick Lunch Toolbar or Start\Programs menu.</p>
231.	<b>Item 5-71</b> [5.10.6, p.5-157; 5.5.2.20, pg. 5-119; 5.5.2.20.2, p.5-123 (related information only)]				<p>[All Segments] <b>The segment describes all background processes, if any, through the Processes descriptor. (If the product is a COTS product that starts its own background processes instead of using the Processes descriptor, the processes started must be documented in the Software Version Description Document or its equivalent, and a waiver granted by the Chief Engineer.)</b></p> <ol style="list-style-type: none"> <li>1. Review the SegInfo segment descriptor file at: c:\&lt;h or Program Files&gt;\&lt;segment name&gt;\SegDescrip\ SegInfo</li> <li>2. Locate the optional [Processes] Segment Descriptor section in SegInfo file.</li> <li>3. Contents should comply with reference in column 2 if segment uses any background processes. Valid SegInfo file Processes descriptor keywords to identify process types are: <ul style="list-style-type: none"> <li><b>\$ BOOT</b> -- specify a list of processes to launch at &lt;hardware&gt; boot time.</li> <li><b>\$BACKGROUND</b> -- specify a list of background processes. &lt; should be listed under Task Manager Processes Tab&gt;</li> <li><b>\$PERIODIC</b> -- specify a list of background processes to run at some specified interval. &lt;This type of process is detectable by the above procedure but only momentarily at the specified interval.&gt;</li> <li><b>\$PRIVILEGED</b> -- specify a list of processes to run in privileged (i.e., "root") mode (<i>UNIX only</i>)</li> <li><b>\$RUN_ONCE</b> -- specify a list of "one-shot" processes to run the next time the system is started, but only the next time the system is started and never again thereafter &lt;find in registry&gt;</li> <li><b>\$SESSION</b> -- specify a list of login session processes. &lt;This type of process is detectable by the above procedure but only momentarily during session login.&gt;</li> <li><b>\$SESSION_EXIT</b> -- specify a list of processes to run prior to terminating a login session&lt;This type of process is detectable by the above procedure but only momentarily during session logout.&gt;</li> </ul> </li> <li>4. Evaluate Registry section of c:\ Seg_Eval\&lt;mission application&gt;\&lt;segment prefix&gt;\AFTRLOAD\HDDelt.txt vs. what is</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>described under the Processes Descriptor. REVIEW the Run or RunOnce keys underneath CurrentVersion.</p> <p>5. Review c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\services_delt.txt Determine what processes are used by the segment, ensure they are documented correctly in the segment's SegInfo segment descriptor file.</p> <p>6. SegInfo file Processes (Services) descriptor contents should be consistent with analysis findings. If Processes descriptor contents include processes, which cannot be verified, consider the results of the examination.</p> <p>7. Segment passes this item if procedure results comply with Processes descriptor contents and there are no discrepancies.</p>
232.	<p><b>Item 5-81</b>                      [5.10.6, p.5-157;                      5.5.2.20, pg. 5-119;                      5.5.2.20.2, p.5-123                      (related information only)]</p>				<p>[All Segments] <b>The cognizant DOD Chief Engineer has granted prior approval for background, boot, RunOnce, and periodic processes.</b></p> <p>Reference item 5-71, for background process installed by the segment.</p> <p>1. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt, review for entries under the following keys:</p> <p style="padding-left: 40px;">HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services                      HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Run                      HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\RunOnce                      HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\RunOnceEx</p> <p>2. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\SERVICES5.TXT, for services installed by segment.</p> <p>3. Within NotePad from the window upper left corner, select Search – Find... and type "Run". Repeatedly perform the search of Hd_delt.txt file, examining the registry entries in the file where the Run RunOnce or RunOnceEx keys underneath CurrentVersion get added/modified by the segment.</p> <p>4. Segment passes this item if any Services, Run, RunOnceEx, or RunOnce keys are found, and included in the documentation and has matching written approval from the Chief Engineer.</p>
233.	<p><b>Item 5-78</b>                      [5.10.6, p.5-157;                      5.5.2.20, pg. 5-119;                      5.5.2.20.2, p.5-123                      (related information only)]</p>				<p>[All Segments except COTS Segments] <b>Unless a COTS segment, the segment uses the Processes descriptor to create boot time processes. It does not directly set the Run or RunOnce keys underneath CurrentVersion but relies upon the installation tool to do so.</b></p> <p>1. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\ Hd_delt.txt</p> <p>2. Within NotePad from the window upper left corner, select Search – Find... and type "Run". Repeatedly perform the search</p>



## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>new registry entries referencing file locations, (may be some).</p> <ol style="list-style-type: none"> <li>Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT REFIX&gt;\AFTRLOAD\EvalData\ Envir_delt.txt check for environment variables that reference file locations (should be none). Also, check for changes in the PATH with addition of segment directories.</li> <li>Segment passes item if no anomalies are found.</li> </ol>
237.	<b>Item 5-1</b> [5.5.2.12 p. 5-103; 5.8.5 p. 5-145; 2.2.1, p.2-37]				<p>[All Segments] <b>For COE-component segments, if the segment provides a command-line mode or feature, prior approval has been granted by the DII COE Chief Engineer. The \$CMDLINE keyword is used in the Direct segment descriptor to indicate command-line access is provided.</b></p> <ol style="list-style-type: none"> <li>Exercise segment, if possible. Attempt to find and use a command line mode or feature in the segment. Then, continue. This includes being able to launch cmd.exe, Run, or a UNIX subsystem shell from within the segment.</li> <li>Review file contents at /h/&lt;segment name&gt;/SegDescrip/SegInfo. Check to see if [Direct] Segment Descriptor is used in the file. Then check to see if the \$CMDLINE keyword is used beneath it in that section. Any use of the descriptor and keyword should be consistent with documentation findings.</li> <li>Look for use of the \$KEY keyword associated with the \$CMDLINE. Proper use of the \$KEY keyword with this keyword constitutes approval.</li> <li>Results found in documentation should match what is online. If documentation is does not match, develop a note.</li> <li>The segment fails this item if:                             <ol style="list-style-type: none"> <li>Command line mode is found without \$CMDLINE keyword use</li> <li>Direct descriptor with \$CMDLINE keyword is found online without \$KEY or written approval.</li> </ol> </li> </ol>
238.	<b>Item 5-2</b> [5.5.2.12 pg 5-103; 5.8.5 pg 5-145; 2.2.1, p.2-37]				<p>[All Segments] <b>For mission-application segments, if the segment provides a command-line mode or feature, prior approval has been granted by the Chief Engineer. The \$CMDLINE keyword is used in the Direct segment descriptor to indicate command-line access is provided.</b></p> <ol style="list-style-type: none"> <li>Note results of above item 5-2.</li> <li>The segment fails if:                             <ul style="list-style-type: none"> <li>Command line mode is found without \$CMDLINE keyword use</li> <li>Direct descriptor with \$CMDLINE keyword is found online without \$KEY or written approval.</li> </ul> </li> </ol>
239.	<b>Item 5-3</b> [5.8.5, p. 5-145]				<p>[All Segments] <b>The segment does not provide a “back door” access to a command-line prompt. If a command-line mode is available, it is through a known, documented approach for all authorized users and not through some hidden,</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	(related information only)]				<p><b>undocumented approach.</b></p> <ol style="list-style-type: none"> <li>Note results of above items 5-2 and 5-3.</li> <li>During the use of the segment, if the user can call cmd.exe or other command line equivalent like a UNIX shell subsystem from with in the segment and the approach is undocumented the segment fails this item.</li> </ol>
240.	<b>Item 7-4</b> [5.8.5, p. 5-145]				<p>[All Segments] <b>Entering a command line mode requires the operator to enter a password and forces execution of the system login process.</b></p> <ol style="list-style-type: none"> <li>Enter command line mode if available. This does not include Run or Cmd.exe as these are external to the segment under evaluation and are run under the current users authority only. Make note of system time_____. You will need it later to support evaluation of checklist item 8-1 below.</li> <li>Check previous test outputs -- if the segment permits access to a command line (Xterm window, UNIX subsystem) then the user must login to the shell/command line.</li> <li>If login is not required, then segment fails this item. If no login occurs check to see if the current users account and password are automatically passed to the to platform providing the Xterm or UNIX subsystem. Check system configuration and documentation, if this occurs the segment passes this item.</li> </ol>
241.	<b>Item 8-1</b> [5.8.5, p. 5-145]				<p>[All Segments] <b>Entry to and exit from the command-line mode causes an entry into the system audit logs that specifies the date, time, and user involved.</b></p> <ol style="list-style-type: none"> <li>If entry in command line mode was not possible per above item 7-4 then this item is N/A.</li> <li>If possible to launch a command line from with in the segment then review the Event log. Ensure there is an entry in the log for entry made into the command mode in item 7-4.</li> <li>Segment passes this item if the Event Viewer shows a log entry for startup of command line mode in item 7-4 and the entry contains the date, time and user information.</li> </ol>
242.	<b>Item 7-5</b> [5.4.7, p. 5-49; 5.5.2.24, p. 5-128; 5.8.1, p. 5-144]				<p>[All Segment Types except Aggregate ] <b>The segment does not contain features with multiple security levels, unless an aggregate segment.</b></p> <ol style="list-style-type: none"> <li>Review the segment documentation to determine if the segment contains features with multiple security levels. Also, review segment security classification guide and look for mixing of different classifications of data within the segment when exercising it.</li> <li>If multiple security levels with in the segment are discovered, determine segment type as stated after \$Type keyword in SegName segment descriptor file. Find SegName file at:</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					c:\<h or Program Files>\<segment name>\SegDescrip\SegName 3. If multiple levels of security are found in the segment and it is not an Aggregate segment, then segment fails item.
243.	<b>Item 8-2</b> [5.3, P. 5-21; 5.8.3, p. 5-144]				[All Segments] <b>Information written to the audit log includes the segment prefix.</b>  1. If the segment writes to its own log file(s) and it is the only segment that writes to the log file then this item is N/A. The intent is that the segment putting an entry into a shared log file is clearly identified. 2. Check documentation to determine if the segment writes to one or more of the standard Event logs (Application, System, Security) or if an aggregate segment that maintains shared log files for the parent and child segments. If entries are written to one of the Event logs or shared logs – determine the cause of an entry and setup a test to create the cause/effect. Accomplish the test to make an entry be written to the appropriate log file. For standard OS log files check the Event Viewer to ensure the entry contains the Segment prefix: [use the following menu selections] Start, Programs, Administrative Tools (Common) – Event Viewer 4. The segment passes the item if the segment prefix is part of the log entry.
244.	<b>Item 8-3</b> [5.8.9, p. 5-146]				[All Segments, except RDBMS driven segments] <b>The segment does not mix restricted and unrestricted data files in the same directory.</b>  1. The reference is to segments with data files. For: a. Static data under the .\<segment_name>\data, b. Dynamic data with local scope under Data Drive\data\local\segment_name\data, c. Dynamic data with global scope under Data Drive\data\global\segment_name\data, 2. If segment data files are to be accessed world-wide (meaning not just locally but across network by other like applications) then data should be setup into two sub-directories to separate the “world accessible” data from local access/proprietary data. The delivered documentation should describe the segment adequately enough to determine if this circumstance should occur -- if it does, then check ./data directory and ensure that the data\local and data\global sub-directories have been set up. 3. Segment passes this item if data files with the same scope are in the proper data directory.
245.	<b>Item 3-9</b> [Appendix A, A1-3; 6.0, p. 6-1; 6.1.2, bullet 5, p.6-6]				[All Segments] <b>The application uses a commercially licensed Windows NT that is the same version as used by the COE. or higher.</b>  The segment passes this item if it installs and runs under Windows NT 4. The segment fails this item if it must be installed on Windows NT 3.51 or an earlier version (can not be installed on Windows NT 4).

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
246.	<b>Item 5-101</b> [5.4.3, p. 5-36]				<p>[All Segments] <b>The segment does not create copies of executables from other segments. (There are rare instances where this may be required to create a patch segment. Such exceptions require the prior approval of the Chief Engineer.)</b></p> <p>1. Review PreInstall and PostInstall script files for copy or xcopy command and where the source file is outside the segments directory structure. If present, review documentation for approval from Chief Engineer to create copies of executables. Segment passes item if no discrepancies are found.</p>
247.	<b>Item 5-42</b> [7.3.1, p. 7-6]				<p>[Web-Attributed Segments] <b>The segment provides a notification to “disadvantaged” users if they are using a browser that does not support the features provided by the segment.</b></p> <p>1. Exercise the segment using the COE standard version of Netscape and Internet Explorer. Find out what kind(s) of file formats and display capabilities the segment uses, including audio, video, use of frames, etc.                  2. In exercise of web segment, attempt to access a web page and/or hyperlink that requires each of these types of formats.                  3. If the segment is able to handle each type format, gracefully (even if it is unable to play audio), segment passes item. If a browser is does not display or provide functionality for the segment with no notification, segment fails item.</p>
248.	<b>Item 5-8</b> [3.2.1.1, p. 3-12 (related information only); 6.5.1, p. 6-23; 6.5.2, p. 6-24; 6.7.5, p. 6-33]				<p>[All Segments] <b>All directory and filenames contain only printable, non-blank, standard ASCII characters.</b></p> <p>1. Check the new files section of the Analyzer generated final reports for each partition.                  2. If any segment created directory or filenames containing non-printable ASCII characters or blank spaces the segment fails this item. Blank spaces in OS default named directories like “Program Files” do not apply to this item.</p>
249.	<b>Item 8-6</b> [3.2.1.1, p.3-12 (related information only)]				<p>[All Segments] <b>All directory and file names begin with an alphanumeric character.</b></p> <p>1. Check the new files section of the Analyzer generated final reports for each partition.                  2. Segment passes item if all created directory and filenames start with an alphanumeric character.                  Note: Alphanumeric means: Consisting of both alphabetic (A-Z) and numerical symbols (0,1,...9)</p>
250.	<b>Item 4-16</b> [6.7, p. 6-31; 6.7.5, 6-33; 6.7.11, p. 6-36;				<p>[All Segments] <b>(NT) The segment is able to handle UNC filenames.</b></p> <p>1. Item does not need to be evaluated if Logo test results provided.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	6.5.2, p. 6-24]				<p>2. If segment does not have a UI option to open or save files then this item in N/A.</p> <p>3. Using segment UI create and then save the file to (<a href="#">\\ServerName\MyShare Point\FileName</a>) . Open the same file by typing in (<a href="#">\\ServerName\MyShare Point\FileName</a>). If the segment can save and reopen file using the UNC, segment passes item.</p>
251.	<b>Item 2-11</b> [6.3.1, p. 6-12; 6.3.2, p. 6-13 (both references provide related information only)]				<p>[All Segments] <b>(NT) If the target system is configured to use Microsoft domains and workgroups, the application can operate correctly in such an environment.</b></p> <p>1. Review documentation for target environment (Domain or Workgroup). Configure system to meet environment. If the segment worked correctly during testing -- e.g., there are no documented problems in this area like opening and closing files with a UNC (item 4-16)-- then it is able to operate in the designated environment. If no environment is designated the GCCS default of Workgroups will be used.</p> <p>2. Segment passes item if no discrepancies are found related to accessing external resources.</p>
252.	<b>Item 7-1</b> [5.8.8, p. 5-146; 5.8.9, p. 5-146]				<p>[All Segments] <b>The segment does not place any temporary files in the system maintained temporary directory that are sensitive to alteration, deletion, or disclosure to unauthorized users.</b></p> <p>1. The \temp directory is empty prior to operation of segment. Examine \temp directory for files, if any are found check per above step. If any files are found, examine file permissions.</p> <p>2. Segment passes this item if files containing sensitive data do not have full or change authorization to the Groups, Everyone, Guests or Domain Guests.</p>
253.	<b>Item 7-2</b> [5.8.8, p. 5-146; 5.8.9, p. 5-146]				<p>[All Segments] <b>If the segment creates files that are sensitive to alteration or deletion by unauthorized users, they are not placed in any directory where such users have write access, and those files do not have write permissions set for such users.</b></p> <p>1. Examine all segment directories for all files containing sensitive information.</p> <p>2. Segment passes this item if directory containing the sensitive files do not have full or change authorization to the Groups, Everyone, Guests or Domain Guests.</p>
254.	<b>Item 7-3</b> [5.8.9, p. 5-146; 5.8.9, p. 5-146]				<p>[All Segments] <b>If the segment creates files which are sensitive to disclosure to unauthorized users, they are not placed in any directory where users have such access.</b></p> <p>1. Examine all segment directories for all files containing sensitive information that cannot be disclosed to unauthorized users. Contact developer/government program manager POC if necessary.</p> <p>2. Segment passes this item if directory containing the sensitive files do not have any permission set for the Groups, Everyone,</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					Guests or Domain Guests.
255.	<b>Item 3-14</b> [No reference]				<p>[All COTS Attribute Segments] <b>Configuration changes made to COTS products, if any, do not render inoperable any features normally available with the COTS product. All configuration changes must be backward compatible.</b></p> <p>1. Check the post_install and Installation Procedures to determine if any configuration modifications are made to COTS products during their installation. If modifications were made, the COTS product will have to be tested to determine if it renders any normally available features inoperable.</p> <p>2. Segment passes this item if configuration changes were made and no features normally available are made inoperable.</p>
256.	<b>Item 1-7</b> [6.1.2, p.6-6 (for Abbreviated and fully segmented COTS segments)]				<p>[All Segments] <b>Custom device drivers added to support program-unique requirements, if any, do not interfere with native capabilities of the operating system nor do they cause a violation of other mandated standards for the operating system or network.</b></p> <p>1. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt</p> <p>2. Review contents of Hd_delt.txt file, examining registry entries affected by the segment.</p> <p>3. Determine if segment uses any custom device drivers as noted in registry changes.</p> <p>4. If no custom device drivers are used, step is N/A.</p> <p>5. If segment is launch able and if custom device drivers are used, exercise segment and operating system to determine if there is any apparent impact of using the device. If there is inference with native capabilities of the OS or mandated standards like the Logo Program, segment fails item.</p>
257.	<b>Item 5-46</b> 2.1.4, #1, p. 2-22; 1.6, #17 <Appendix (capital letter) I of that document>, 1-18]				<p>[All Segments] <b>The desktop is configured in accordance with the <i>User Interface Specifications for the DII.</i></b></p> <p>1. From UIS Appendix I: The segment complies with (or has an approved migration plan to comply with) DII specifications for:</p> <ul style="list-style-type: none"> <li>• Integration with the desktop in section 15.2.</li> <li>• Color, font and application icon design in appendix E.</li> </ul> <p>The application is represented by its own application icon on the desktop. The application (and any associated files or folders) is visible on the desktop only if users are permitted to access to the application.</p> <p>The application determines the constraints for movement and deletion of the data and objects it creates, with users allowed to perform these actions if they have permission to do so. The application cannot affect the availability of other applications on the desktop. However, the application can disable desktop functions that do not apply to or are not allowed for the application or the data it owns.</p> <p>The icons provided by the application are designed so that the icon images can be rendered legibly in multiple sizes and in color, gray-scale, and monochrome environments.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>2. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT REFIX&gt;\AFTRLOAD\EvalData\ Hd_delt.txt, do a search for "All Users". If found examine for deletion of a file or folder.</p> <p>3. Segment passes this item if the segments user interface, if there is one, is accessible from an icon that is installed on the desktop, quick launch tool bar, or Start button - Programs menu and does not delete any icons or menu options for the All Users account.</p>
258.	<p><b>Item 1-13</b> [1.6, # 17, p. 1-18; 2.1.4, p. 2-22]</p>				<p>[All Segments] <b>The application complies with the style of the native GUI. (See GUI compliance requirements in the <i>User Interface Specifications for the DII.</i>)</b></p> <ol style="list-style-type: none"> <li>Item does not need to be evaluated if Logo test results provided.</li> <li>From UIS Appendix I. <ul style="list-style-type: none"> <li>The application complies with the minimum DII requirements for style implementation in section 1.5.3. <ul style="list-style-type: none"> <li>The hotspot of the pointer shall indicate the locus of user input with the pointing device.</li> <li>The location cursor shall indicate the locus of user input from the keyboard.</li> <li>Only one window shall have input focus at any time and can accept keyboard input.</li> </ul> </li> </ul> </li> </ol> <p>Window management operations shall be governed by parent-child relationships within the window family.</p> <ul style="list-style-type: none"> <li>The application complies with (or has an approved migration plan to comply with) DII specifications for: <ul style="list-style-type: none"> <li>Input devices in section 2.0.</li> <li>User-computer interaction in section 3.0.</li> <li>Window management in section 4.0.</li> <li>Menus in section 5.0.</li> <li>Controls and combination controls in sections 6.0 and 7.0.</li> <li>Function keys and keyboard mapping in appendix A and B.</li> <li>Action vocabulary and graphics in appendix C and D.</li> </ul> </li> </ul> <p>3. Segment passes this item if all GUI interface(s) use Java, HTML, the MFC libraries and/or Win32 APIs. Segment fails this item if during use/exercise of the segment; the segment user interface does not meet the above requirements and does not have an approved migration plan.</p>
259.	<p><b>Item 3-19</b> [6.7.8, p. 6-35]</p>				<p>[All Segments] <b>(NT) At a minimum, the application supports SVGA resolutions.</b></p> <ol style="list-style-type: none"> <li>Item does not need to be evaluated if Logo test results provided.</li> <li>While segment is running to determine that super Video Graphics Array (SVGA) or greater resolution is supported.</li> <li>Start Paintbrush. From the Image menu, then choose Attributes.</li> <li>Select Inches, and then replace the values for Width and Height with 1.0 (1-inch high by 1-inch wide). Select Pels. The number in the Width and Height boxes represent your video resolution in dots per inch or Pels. 96 by 96 or greater is SVGA.</li> <li>Segment passes item if the GUI, maps and other user interface functionality are provided on screen per the Users manual with</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					the resolution set at 800 by 600 or greater.
260.	<b>Item 3-20</b> [6.7, p. 6-31]				<p>[All Segments] (NT) <b>At a minimum, the segment supports 16x16, 32x32, and 64x64 icons.</b></p> <ol style="list-style-type: none"> <li>Item does not need to be evaluated if Logo test results provided.</li> <li>Open Explorer and display the \&lt;segment directory&gt;\bin directory and files. <ul style="list-style-type: none"> <li>Select Views and Large Icons option examine displayed segment specific icons.</li> <li>Select Views and Small Icons option examine displayed segment specific icons.</li> <li>Select Views and Details option examine displayed segment specific icons.</li> </ul> </li> <li>Perform same steps for data files created by the segment.</li> <li>Segment passes item if all segment icons change resolution successfully.</li> </ol>
261.	<b>Item 7-19</b> [6.7, p. 6-31]				<p>[All Segments] <b>The Segment supports cut and paste between GUI-based segments through the use of a shared clipboard.</b></p> <ol style="list-style-type: none"> <li>Item does not need to be evaluated if Logo test results provided.</li> <li><i>Cut</i> and <i>Paste</i> should be under the application "EDIT" menu bar. If so, highlight text from a screen text box or editable text/picture; select <i>cut</i>, and the highlighted section should be removed. Iconize the application down and select Microsoft Word icon. Once Word is open, click the mouse in the window and select <i>Paste</i> from the "EDIT" menu bar.</li> <li>Enter is text or a picture into Word then cut and paste into the segment.</li> <li>Segment passes is the selected items are successfully cut and pasted between the segment under evaluation and Word. Note: Another application besides Word will be used if Word does not use the cut items format.</li> </ol>
262.	<b>Item 7-21</b> [6.7.9, p. 6-35]				<p>[All Segments] (NT) <b>The segment uses TrueType fonts.</b></p> <ol style="list-style-type: none"> <li>Item does not need to be evaluated if Logo test results provided.</li> <li>Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT REFIX&gt;\AFTRLOAD\EvalData\ Hd_delt.txt, do a search for "fonts" and "TTF", examine to see if any new fonts were the installed into the font directory, "\winnt\Fonts" to verify that they are type ".TTF".</li> <li>Segment passes item if installed fonts are type .ttf.</li> </ol> <p>Intent is that the segments user in the editable and/or printable screens can use existing fonts on the system.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
263.	<b>Item 8-11</b> [6.7.10, p. 6-35]				<p>[All Segments] <b>(NT) The segment uses the Windows print dialog box for selecting printer configuration parameters.</b></p> <ol style="list-style-type: none"> <li>Item does not need to be evaluated if Logo test results provided.</li> <li>Segment passes item if when selecting a printer in the application, a Windows NT common print dialog box should be displayed (rather than an application unique dialog box).</li> </ol>
264.	<b>Item 5-20</b> [5.4.1, p.5-28]				<p>[All Segments] <b>The segment uses the window manager provided by the COE (dtwm<sup>3</sup> for UNIX, Windows NT window manager for NT platforms)</b></p> <ol style="list-style-type: none"> <li>Item does not need to be evaluated if Logo test results provided.</li> <li>Review the Appendix B completed by the developer, transfer response to here. Review against responses to programming language used and process running under the Task Manager.</li> <li>Segment passes this item if no discrepancies are found.</li> </ol>
265.	<b>Item 5-19</b> [1.6, # 17, p. 1-18; 2.1.4, p. 2-22]				<p>[All Segments] <b>The segment is fully compliant with the style of the native GUI (see compliance requirements in the <i>User Interface Specifications for the DII.</i>)</b></p> <ol style="list-style-type: none"> <li>From UIS Appendix I: <ul style="list-style-type: none"> <li>The segment is fully compliant with level 1 style specifications. See above item 1-13 results.</li> <li>The segment complies with (or has an approved migration plan to comply with) DII specifications for: <ul style="list-style-type: none"> <li>Window design in section 8.0.</li> <li>Common secondary windows in section 9.0.</li> <li>Map windows in section 10.0.</li> </ul> </li> </ul> </li> <li>Segment passes this item if all GUI interface(s) use Java, HTML, the MFC libraries and/or Win32 APIs; and if the segment contains map(s) they meet UIS section 10 or has an approved migration plan.</li> </ol>
266.	<b>Item 6-8</b> [1.6, # 17, p. 1-18; 2.1.4, p. 2-22]				<p>[All Segments] <b>The segment is either completely compatible with the <i>User Interface Specifications for the DII</i> (and for NT, the windows interface guidelines) or has minimal deviations that have been approved by the Chief Engineer.</b></p> <ol style="list-style-type: none"> <li>From UIS Appendix I: <ul style="list-style-type: none"> <li>The segment is fully compliant with level 5 style specifications.</li> <li>The segment complies with (or has an approved migration plan to comply with) DII specifications for:</li> </ul> </li> </ol>

<sup>3</sup> With the present I&RTS release, a commercial CDE product provides the desktop. Thus, dtwm replaces mwm from the previous I&RTS. There should not be any impact to any segment that presently works under mwm.

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<ul style="list-style-type: none"> <li>○ User support resources in section 11.0.                             <ul style="list-style-type: none"> <li>▪ Context-sensitive help provides contextual information about individual objects in the window with focus. If the application supports this form of help, it is available by invoking Help mode. At a minimum, a DoD-developed application provides access to user documentation in a browser window using the Web and online documentation services provided by the COE.</li> </ul> </li> <li>○ Information presentation in section 12.0.                             <p>The application uses the following formats when presenting date and time information:<sup>4</sup></p> <p>Date is displayed as YYYYMMDD, where YYYY is the year, MM is the month, and DD is the day, or as DD MMM YYYY, where DD is the day, MMM is the month, and YYYY is the year. In the former format, year, month, and day are all digits, and leading zeros are included as needed. In the latter format, month is indicated in capital letters, and leading zeros are included as needed.</p> <p>Time is displayed as HHMM[SS]Z, where HH is the hour of a 24-hour day, MM is the minute, SS (optional) is the second, and Z is the time zone (Zulu is the default). The application provides users with the option to select other time zones as required. Leading zeros are included as needed. If desired, the application can include colons and/or spaces as part of the output format to improve readability.</p> <p>Date/Time Group is displayed as DDHHMMZ MMM YYYY, where DD is the day, HH is the hour, MM is the minute, Z is the time zone (Zulu is the default), MMM is the month, and YYYY is the year. Month is indicated in capital letters, and leading zeros are included as needed.</p> <p>The application uses the following formats when presenting latitude and longitude information:</p> <p>Latitude is displayed as D{D}H, where D (one or two characters) is the degrees of latitude and H is the hemisphere (N for North, S for South), or as DD{MM{SS}}H, where DD is the degrees of latitude, MM is the minutes of latitude (optional), SS is the seconds of latitude (optional, but can only be given if minutes of latitude is provided), and H is the hemisphere (N for North, S for South).</p> <p>Longitude is displayed as D{D{D}}H, where D (one, two, or three characters) is the degrees of longitude and H is the hemisphere (E for East, W for West), or as DDD{MM{SS}}H, where DDD is the degrees of longitude, MM is the minutes of longitude (optional), SS is the seconds of longitude (optional, but can only be given if minutes of longitude is provided), and H is the hemisphere (E for East, W for West).</p> <p>If the application presents latitude and longitude together, latitude should precede (either above or to the left of ) longitude. The application should use the appropriate symbols for degrees, minutes, and seconds as part of the output format to improve readability.</p> </li> </ul>

<sup>4</sup> The date/time formats have been updated for Year 2000 compliance.

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<ul style="list-style-type: none"> <li>○ [Web attribute Segments Only] Information presentation in Web applications in section 14.0 If the applet creates a window that is separate from the browser, it is labeled as such (e.g., “Untrusted Java Applet Window”) and supports window management functions in accordance with specifications in section 4. If the application uses an applet to display interface components such as menus and controls, they are implemented according to specifications in sections 5, 6, and 7 and are arranged according to window design rules in section 8. The application is tested to ensure that it downloads and executes correctly with different browsers and platforms.</li> </ul> <p>2. Segment passes this item if the GUI meets all the above requirements or has an approved migration plan.</p>
267.	<b>Item 8-8</b> [1.6, # 17, p. 1-18; 2.1.4, p. 2-22]				<p>[All Segments] <b>The segment is fully compliant with the <i>User Interface Specifications for the DII</i> and for NT, the <i>Windows Interface Guidelines for Software Development</i>.</b></p> <p>1. See results of items 1-13, 5-19, 5-46 and 6-8 above. 2. Segment passes this item if items 1-13, 5-19, 5-46 and 6-8 are not rated false and all GUI interface(s) use Java, HTML, the MFC libraries and/or Win32 APIs.</p>
268.	<b>Item 5-41</b> [7.2.1, p. 7-6; 7.3.2 p. 7-7]				<p>[Web attribute Segments Only] <b>The segment supports HTML 3.2 and complies with style specifications (see the <i>User Interface Specifications for the DII</i>) for Web applications.</b></p> <p>Segment passes this item if the segment successfully provides all HTML based functionality using Netscape Navigator 4.5.</p>
269.	<b>Item 3-10</b> [6.7, p. 6-31]				<p>[All Segments, except web and COTS Segments] (NT) <b>Unless a COTS segment, the segment uses only Win32 APIs to access Windows routines.</b></p> <p>1. Item does not need to be evaluated if Logo test results provided. 2. Examine Analyzer final report for 16 bit files 3. Segment passes this item if no 16 bit files are recorded on the reports.</p>
270.	<b>Item 3-16</b> [6.7 pg 6-31, #7]				<p>[All Segments] (NT) <b>If the application is a COTS product that uses 16-bit APIs, there is no 32-bit alternative.</b></p> <p>1. Item does not need to be evaluated if Logo test results provided. 2. Reference item 3-10 above, if no 16 bit API (16 bit files) used, item is N/A. 3. If a 16 bit file is installed then a 16 bit API is probably used, documentation should indicate that no 32 bit API alternative exists. Contact developer and review Platform SDK for 32 bit alternate. 4. If a 16 bit API is used per above step and documentation supports and both results are correct per reference, segment passes item.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
271.	<b>Item 6-50</b> [6.7, p. 6-31]				<p>[All Segments] <b>(NT) The segment does not use MS-DOS API functions.</b></p> <ol style="list-style-type: none"> <li>Item does not need to be evaluated if Logo test results provided.</li> <li>See results of item 3-10 above for 16 bit code, DOS functions are written in 16 bit code only. While the segment is running call up the Task Manager and look for NTVDM.exe, MS-DOS functions require the NTVDM.EXE process to be executing.</li> <li>If the process does not appear, segment passes step. If process appears, coordinate with developer to determine cause. Use of a 16 bit API does not necessarily mean MS DOS functions are being used. If cause is determined to be use of MS DOS functions, segment fails item.</li> </ol> <p>Note: Use of MS-DOS style scripts (.BAT or .CMD) by the segment does not constitute use of MS DOS API functions.</p>
272.	<b>Item 6-3</b> [5.8.5, p. 5-145 (related information only)]				<p>[All Segments] <b>Termination of segment execution, whether premature, inadvertent, or intentional does not place the operator at a command-line prompt.</b></p> <ol style="list-style-type: none"> <li>Incorrect termination of the segment must put the user back to the desktop. The user cannot be left in a UNIX subsystem shell where UNIX command scan be executed. The test can be done by incorrectly exiting the segment (&lt;control&gt;Q, &lt;control&gt;D, selecting the upper-left icon button on a subordinate screen to close the application, killing the applicable process)</li> <li>Segment passes this item if terminating the segment using each of the above methods does not put the user at a command-line prompt.</li> </ol>
273.	<b>Item 7-36</b> [6.7, p. 6-31]				<p>[All Segments] <b>(NT) The segment does not duplicate any Windows functions.</b></p> <ol style="list-style-type: none"> <li>Examine SVD and other documentation for descriptions of the functionality provided by the segment. Examine functionality provided during exercise of the segment.</li> <li>Segment passes this item if the segment does not duplicate any identical functionality provided by the Windows operating system components. The OS provided duplicated function must be capable of providing the exact same support with the same implementation scope to be considered a duplicate function.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
274.	<b>Item 7-34</b> [2.1.4, Item 8, p. 2-23]				<p>[All Segments] <b>The segment does not duplicate any functions provided by COE-component segments unless approved by the DII COE Chief Engineer.</b></p> <ol style="list-style-type: none"> <li>1. Reference item 7-36 findings Windows functions are provided by component segments.</li> <li>2. Evaluate segment functionality. Based on tester knowledge of COE component segments, if exercised segment is found to duplicate COE Component segments, it fails step.</li> <li>3. Segment passes this item if the segment does not duplicate any identical functionality provided by the Windows operating system or COE component. The duplicated function must be capable of providing the exact same support with the same implementation scope to be considered a duplicate function.</li> </ol>
275.	<b>Item 8-22</b> [2.1.4, p. 2-22]				<p>[All Segments, <i>Particularly COTS Segments</i>] <b>The segment does not duplicate functionality provided by any other segment unless approved by the DII COE Chief Engineer.</b></p> <ol style="list-style-type: none"> <li>1. Reference findings on item 7-34.</li> <li>2. Evaluate segment functionality. Based on evaluator knowledge of all segments in database (GCCS, GCSS, etc.), if exercised segment is found to duplicate functionality of another segment and is not approved by Air Force Chief Engineer, it fails item. The duplicated function must be capable of providing the exact same support with the same implementation scope of the existing segment to be considered a duplicate function.</li> </ol> <p>Note: The intent is to allow the incorporation of competing COTS and not prohibit it. The product selection is for licensing and maintenance purpose, not the ability to have multiple COTS products available. DISA Example: DBMS supported Oracle, Sybase, SQL Server, Informix.</p>
276.	<b>Item 5-7</b> [2.1.2.1, pg. 2-8]				<p>[All Segments] <b>The segment uses the same COE kernel as provided by the COE and documented in the applicable <i>DII COE Baseline Document</i> for the COE version being used.</b></p> <p>The segment passes this item if it installs without error and provides all designed functionality under the COE kernel installed on the evaluation platform. Installed COE kernel is based on version the segment has based lined on and annotated on the questionnaire.</p>
277.	<b>Item 4-11</b> [1.6, Item 5, p. 1-16]				<p>[All Segments] <b>The segment uses the same COTS configurations as those specified by the applicable <i>DII COE Baseline Document</i> for any COTS product it uses that may also reside on the platform.</b></p> <ol style="list-style-type: none"> <li>1. Open file Analyzer final report files and examine the changed files and registry entry categories.</li> <li>2. Segment passes this item if there are no COTS configuration files or registry changes listed belong to COTS products listed in the <i>DII COE Baseline Document</i>.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
278.	<b>Item 1-10</b> [6.7.11, p. 6-37]				<p>[All Segments] <b>The application, if required, uses only those TCP/IP interfaces provided by the native operating system.</b></p> <ol style="list-style-type: none"> <li>1. Check delivery letter and attachments to confirm. If not stated, coordinate with sponsor/developer to determine TCP/IP standards used.</li> <li>2. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT REFIX&gt;\AFTRLOAD\EvalData\ Hd_delt.txt, do a search for tcp, see if there are any library files or registry entries that may point to a new TCP/IP or Winsock system installed by the segment. If any item found, confirm there is a duplicate TCP/IP interface.</li> <li>3. Segment passes this item if only the native operating system TCP/IP interfaces are used.</li> </ol>
279.	<b>Item 2-8</b> [5.11.3, p. 5-160]				<p>[All Segments] <b>The application does not require any particular hostname conventions nor does it need reserved IP addresses.</b></p> <ol style="list-style-type: none"> <li>1. Check documentation, SegInfo and PostInstall scripts to ensure hostname and/or IP addresses are not created. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT REFIX&gt;\AFTRLOAD\EvalData\ Hosts_delt.txt, for new (not previously existing) hosts and IP addresses.</li> <li>2. Examine installation documentation/procedures for any special hostname conventions or reserved IP addresses.</li> <li>3. Segment passes item if no discrepancies are found.</li> </ol>
280.	<b>Item 1-11</b> [No reference]				<p>[All Segments] <b>The application, if required, uses only those UDP or point-to-point interfaces provided by the native operating system.</b></p> <ol style="list-style-type: none"> <li>1. Check delivery letter and attachments to confirm. If not stated, coordinate with sponsor/developer to determine UDP standards used.</li> <li>2. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT REFIX&gt;\AFTRLOAD\EvalData\ Hd_delt.txt, do a search for udp, see if there are any library files or registry entries that may point to a new UDP system installed by the segment. If any item found, confirm there is a duplicate UDP interface.</li> <li>3. Segment passes this item if only the native operating system UDP interface is used.</li> </ol>
281.	<b>Item 1-12</b> [No reference]				<p>[All Segments] <b>The application, if required, uses only those SLIP or PPP interfaces provided by the native operating system.</b></p> <ol style="list-style-type: none"> <li>1. Check delivery letter and attachments to confirm. If not stated, coordinate with sponsor/developer to determine.</li> <li>2. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT REFIX&gt;\AFTRLOAD\EvalData\ Hd_delt.txt, do a search for tcp, see if there are any library files or registry entries that may point to a new dial up protocol is installed by the segment. If any item found, confirm there it duplicates the SLIP or PPP interface.</li> <li>3. Segment passes this item if only the native operating system SLIP or PPP interfaces are used.</li> </ol>
282.	<b>Item 7-7</b>				<p>[All Segments] <b>The segment does not create files or directories with "full control" permissions for "world" users, except</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	[5.8.9, p.5-146]				<p><b>as authorized by the Chief Engineer.</b></p> <ol style="list-style-type: none"> <li>1. Log in as the system administrator.</li> <li>2. MAXIMIZE the DOS window size and type:: <b>GETAUTH &lt;SEGMENT PREFIX&gt; &lt;PATH&gt;</b> the PATH is the directory structure to check for permissions granted to the groups Everyone, Guest or Domain Guest.</li> <li>3. Execute script for each directory structure. Watch command window, if any lines show on the screen stating <b>PATH perms RWXDPOA</b>, then there are files or directories with Full Control permissions to World users set. Examine the file <b>C:\COE_Eval_Tools\&lt;SEGMENT PREFIX&gt;\permissions.txt</b> for file and directory permissions. Move file to <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT REFIX&gt;\AFTRLOAD\EvalData\</b>.</li> <li>4. Segment passes this item if no files or directories installed by the segment are found with permissions <b>RWXDPOA</b> for groups Everyone, Guest or Domain Guest.</li> </ol>
283.	<b>Item 7-14</b> [5.2.2 p. 5-18; 6.3.3.2, p. 6-16]				<p>[All Segments] <b>Operator-specific data is located underneath /h/USERS as described in Chapter 5 for UNIX and as described in Chapter 6 for NT.</b></p> <ol style="list-style-type: none"> <li>1. This item is intended to ensure that when a user runs a report or other product to a file, the file is stored under the users home PERSONAL directory. To test this, go to create a report and other product (set the current accounts group permissions as required by segment to create a report) -- the segment should open the save file screen to the default directory <b>\winnt\profiles\[account]\Personal\</b> -- if no directory level is provided (e.g., the user simply puts in a filename for the product) then the output should be under this directory.</li> <li>2. Segment passes this item if the save file screen defaults to the accounts \Personal directory.</li> </ol>
284.	<b>Item 8-20</b> [5.4.4, p. 5-37; 5.2.2, p. 5- 17; 6.3.4.2, p. 6-17]				<p>[All Segments] <b>Operator data is located through the appropriate APIs from the Developer's Toolkit documentation for UNIX, and through the appropriate Windows NT API for Windows NT.</b></p> <ol style="list-style-type: none"> <li>1. See findings of item 7-14, item must be true to evaluate item 8-20.</li> <li>2. Segment passes this item if the common save/open files dialog box is used. If it the common OS dialog box is not used ask developer what library/API set was used.</li> </ol>
285.	<b>Item 8-21</b> [5.4.4, p. 5-37; 5.2.2, p. 5- 17; 6.3.4.2, p. 6-17]				<p>[All Segments] <b>The current operator profile is obtained through the appropriate APIs from the Developer's Toolkit documentation for UNIX, and through the appropriate Windows NT API for Windows NT.</b></p> <ol style="list-style-type: none"> <li>1. Go to Control Panel, Display applet, Appearance tab, and click on Active Window Active Title Bar and set to green, then click on Apply button. Go back to segment and resize the active window; see if Title Bar assumes new color.</li> <li>2. Segment passes item if Title Bar changes color. If segment is for night operations only or has valid reason to not allow user to set title bar color then find another standard metrics item that is user specific.</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
286.	<b>Item 6-55</b> [9.1.1, p. 9-2]				<p>[All Segments] <b>The segment has been compiled without the debug option enabled.</b></p> <ol style="list-style-type: none"> <li>In Explorer, right click the primary executable files and do a Quick View. Under Characteristics should be a line: "Debugging info stripped from file in .DBG file." or "Local symbols stripped from file." and "Line number stripped from file." If neither of these is found check with the developer to determine the compiler used and how to determine that debug was not used in the final compile. Indications that the debug option may be enabled include the creation of debug files with the exercise of software.</li> <li>Segment passes this item if the lines in paragraph 1 above are present in the Quick View.</li> </ol>
287.	<b>Item 8-4</b> [5.1.2; p. 5-6 ]				<p>[All Segments] <b>The segment does not use any conventions obsoleted by this document (use of progs vs. bin, use of COMPONENT vs. CHILD, use of ModName and SegType vs. SegName etc.).</b></p> <ol style="list-style-type: none"> <li>Log in as the system administrator.</li> <li>MAXIMIZE the DOS window size and type:: <b>GETOBSOLETE &lt;SEGMENT PREFIX&gt; &lt;PATH&gt;</b> the PATH is the \h directory structure to check for obsolete files, directories and descriptors. Example: <b>GETOBSOLETE AIMNT c:\h\cots\aimnt</b></li> <li>Watch command window, if any lines show on the screen under the below example line, ----- <b>C:\H\COTS\AIMNT\SEGDESCRIP\SEGINFO</b>, then there are obsolete entries. Examine the file <b>C:\COE_Eval_Tools\&lt;SEGMENT PROEFIX&gt;\obsolete.txt</b> for the entries. Move obsolete.txt to <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT REFIX&gt;\AFTRLOAD\EvalData\</b>.</li> <li>Segment passes this item if no files, directories or descriptors installed by the segment are found in the <b>C:\COE_Eval_Tools\&lt;SEGMENT PROEFIX&gt;\obsolete.txt</b> file.</li> </ol>
288.	<b>Item 5-103</b> [5.5, 4 <sup>th</sup> bullet, p. 5-59; 5.5.1.1, p. 5-60; Appendix C-2.12, p. C-11]				<p>[All Segments] <b>For full segmentation segments, the segment does not delete itself via the DEINSTALL descriptor, nor perform any other operations that are handled by the COE installation tools (e.g., undo changes made to community files). This requirement also applies to the "pseudo-segment" created as part of the abbreviated segmentation process.</b></p> <ol style="list-style-type: none"> <li>Open the \h \&lt;segment name&gt;\SegDescrip\DEINSTALL descriptor file and see if the any files under \h\&lt;segment name&gt; are deleted.</li> <li>If the DEINSTALL script is a .exe file, right click on it and use Quick View to gain some insight into its contents.</li> <li>Using COE installation tool descriptions in I&amp;RTS Appendix C, check the segment DEINSTALL script to ensure that it does not use unique code to perform any COE installation tool functions (e.g., removing private files, etc.). If it does not, segment passes item.</li> </ol>
289.	◆				<p>[All Segments] <b>Begin the Segment Deinstallation Process. DEINSTALL ONLY THE SEGMENT UNDER EVALUATION. Perform the following activities as you go.</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<ol style="list-style-type: none"> <li>Delete any Analyze.exe generated documents from the desktop. From Explorer go to the <b>COE_Eval_Tools</b> subdirectory and double click on <b>ANALYZE.EXE</b>, run a Reference on all the drives and registry.</li> <li>Follow Deinstallation Procedures “to the letter” including execution of any DEINSTALL script required by the procedures.</li> <li>If a DEINSTALL script is used, make note below indicating if a privileged user (administrator) account group is used &lt;per segment deinstallation procedure&gt; to execute it.</li> <li>Note completeness/correctness of deinstallation procedures. If an abbreviated segment, uninstall from Control Panel, Add/Remove Programs applet and use COEInstaller to remove SDFs. Note any error messages from the Add/Remove Programs applet.</li> <li>If deinstallation procedures contain ambiguities, generate a note.</li> <li>If input data is needed but is unknown, generate a note.</li> <li>If deinstallation procedures provide incorrect direction, generate a note.</li> <li>If you cannot “figure it out,” generate a note.</li> </ol>
290.	<b>Item 5-5</b> [2.2.1, pg., 2-38; 5.5.1.1, p. 5-60; 5.5.1.4, p. 5-61; 5.5.1.5, p. 5-61; 5.5.2.12, p. 5-105]			√	<p>[All Segments] <b>If privileged user permissions are required during segment installation or removal (e.g., use of the \$ROOT keyword), prior approval has been granted by the Chief Engineer.</b></p> <ol style="list-style-type: none"> <li>\$ROOT and \$KEY descriptors are not implemented yet.</li> <li>If a privileged user (system administrator account group) is used to execute a DEINSTALL script as noted in , Step 1, then the \$ROOT and approval to use it (use of \$KEY keyword or written approval in documentation) are indeed required. \$ROOT and \$KEY keywords would occur under the [Direct] Segment Descriptor in the SegInfo segment descriptor file.</li> <li>Consider results of this step with the results of , Item 5-5.</li> <li>If documentation/approvals do not support installation and/or deinstallation procedures per I&amp;RTS references, note the checklist item failure and document ALL discrepancies of this rather broad checklist step in the test report failure matrix.</li> <li>If documentation/approvals do support installation and/or deinstallation procedures per I&amp;RTS references and:               <ol style="list-style-type: none"> <li>Privileged scripts are used – segment passes step.</li> <li>No privileged scripts are used – step is N/A to segment.</li> </ol> </li> </ol>
291.	◆				<p>[All Segments] <b>After deinstalling segment, obtain deinstallation Hard Drive Snapshot. Perform the following activities:</b></p> <ol style="list-style-type: none"> <li>Create subdirectory <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\ DEINSTAL\</b></li> <li>Capture contents of the COE &lt;De&gt;Installation Log, copy file STAT_LOG at \h\COE\data\local to <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\ DEINSTAL\</b></li> <li>Copy the ANALYZE.EXE generated documents from before the installation of the segment located at <b>c:\Seg_Eval\&lt;APPLICATION NAME&gt;\BASELINE</b> to the Desktop.</li> <li>From Explorer go to the <b>COE_Eval_Tools</b> subdirectory and double click on <b>ANALYZE.EXE</b>, run Evaluate on all the</li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p>drives and registry.</p> <ol style="list-style-type: none"> <li>5. Obtain a DEINSTALL &lt;After Segment Deinstallation&gt; Snapshot of hard drive contents.</li> <li>6. Log on as a system administrator with unrestricted privileges.</li> <li>7. From the lower left corner, select Start-Programs-Command Prompt to get a DOS window. MAXIMIZE the DOS window size and type: <b>c:\GO_SNAP</b> to review script documentation &lt;sized to fit in the maximized window&gt;.</li> <li>8. Then, from c:\COE_Eval_Tools&gt; prompt, type: <b>c:\SNAPSHOT &lt;APPLICATION NAME&gt; &lt;SEGMENT PREFIX&gt; DEINSTALL</b> carefully using the documentation. If necessary, refer to , Step 4 to ensure you correctly type application name.</li> <li>9. Execute script. Select OK when prompted to do so. Close the Sysdiff window by clicking the “X” box in the upper right corner. Select OK when prompted again to do so. Close the DOS window on completion of the script.</li> <li>10. The SnapShot script <i>with the above parameters</i> will: <ul style="list-style-type: none"> <li>- Generate a new directory path for snapshot files: <b>c:\Seg_Eval&lt;APPLICATION NAME&gt;\&lt;SEGMENT_PREFIX&gt;\DEINSTALL.</b> &lt;Select View-Refresh if necessary in WindowsNT Explorer to view the newly created directory.&gt;</li> <li>- Create a Segment Deinstallation snapshot of the complete hard drive contents.</li> <li>- Generate a new directory path to store snapshot evaluation results: <b>c:\Seg_Eval&lt;APPLICATION NAME&gt;\&lt;SEGMENT_PREFIX&gt;\DEINSTALL\EvalData</b></li> <li>- Evaluate the DEINSTALL snapshots against the BASELINE snapshots and place the following files in above directory: <ul style="list-style-type: none"> <li>- Hd_delt.txt -- indicates any changes (the delta) to the complete hard drive (additions, modifications, deletions), including the registry, made since the BASELINE snapshot</li> <li>- aebtdelt.txt – indicates any changes (the delta) in the contents of the autoexec.bat file since the BASELINE snapshot</li> <li>- aentdelt.txt – indicates any changes (the delta) in the contents of the autoexec.nt file since the BASELINE snapshot</li> <li>- cfntdelt.txt – indicates any changes (the delta) in the contents of the config.nt file since the BASELINE snapshot</li> <li>- cfsydelt.txt – indicates any changes (the delta) in the contents of the config.sys file since the BASELINE snapshot</li> <li>- pathdelt.txt – indicates any changes (the delta) in the system path variable since the BASELINE snapshot</li> <li>-USER_GRP_delt.txt – indicates any changes (the delta) in the user and group accounts since the BASELINE snapshot</li> <li>-SERVICES_delt.txt - indicates any changes (the delta) in the installed background services since the BASELINE snapshot</li> <li>-ENVI_del.txt – indicates any changes (the delta) in the system environment variables since the BASELINE snapshot</li> </ul> </li> <li>- Print out file contents of directory:</li> </ul> </li> <li>11. Move the ANALYZE.EXE generated final reports to file <b>c:\Seg_Eval&lt;APPLICATION</b></li> </ol>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
					<p><b>NAME&gt;\&lt;SEGMENT PREFIX&gt;\ DEINSTAL\ EvalData</b></p> <p>NOTE: If the integrated Sysdiff application fails and “error = 32”, then this means that certain files are in use. This error is a good indication that segment-supporting operating system services are started that must be stopped before a snapshot can be taken. Go to Start – Settings – Control Panels – Services. Examine started automatic services that are associated with any installed segment. Stop those services and then take the snapshot. Some trial and error may be required to get the snapshot. Expect to see traces of the actions you take to stop services in the snapshot report. Restart computer immediately after taking the snapshot to get the services restarted. Important: DO NOT MAKE ANY AUTOMATIC SERVICES INTO MANUAL SERVICES.</p> <p>12. Collect, bind, and place Snapshot Evaluation file printouts in the segment folder for use below.</p>
292.	◆				<p>[All Segments] <b>Capture All Segment Installation Output files/logs.</b></p> <p>Copy or move any product (.log, .lis, etc.) (file in \h\COE\data\local\STAT_LOG), files created during deinstallation to <b>c:\Seg_Eval&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\DEINSTAL</b> directory where they can be retained for further analysis, if necessary.</p>
293.	◆				<p>[All Segments] <b>Make DEINSTAL copies of files affected by the [Community] segment descriptor for use in compliance evaluation below.</b></p> <p>1. If there is no [Community] descriptor, make note of this and proceed to the next step.                  2. Otherwise, using the segment’s sheet of [Community] segment descriptor- affected files, copy each file identified to be affected by this segment descriptor from source location to directory:  <b>c:\Seg_Eval&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\DEINSTAL</b></p>
294.	<b>Item 5-96</b> [2.1.4, p. 2-23 # 7]				<p>[All Segments] <b>If removable, the Segment has been tested and confirmed that it can be successfully removed from the system.</b></p> <p>1. Check all log files including the c:\ Seg_Eval&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\ DEINSTAL\COE DEINSTALL LOG.txt file. Determine if there are any indications of an unsuccessful deinstallation. If there are any, segment fails step.                  2. Open file c:\Seg_Eval&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\DEINSTAL\ EvalData\Hd_delt.txt. Review contents of <b>Hd_delt.txt</b> file, examining if any files remain after deinstallation. There should be no segment installed files remaining in the file structure or in the registry after deinstallation of this segment. If any are found to have been added or modified since the BASELINE, segment fails item. Note: Segments may leave user created directories and data files, sharable DLLs, sharable fonts, and sharable registry entries.</p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
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295.	<b>Item 6-17-12</b> [6.3.1. User Experience - Uninstall, p 23]				<p><b>The uninstaller must remove all advertisements and shortcuts placed anywhere in the Start Menus by its installer that are associated with the component that is being removed.</b></p> <ol style="list-style-type: none"> <li>1. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\start_menu_delt.txt., review for shortcuts and advertisements in stalled by segment.</li> <li>2. Openfile c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\DEINSTAL\EvalData\start_menu_delt.txt, examine for changes from baseline to after uninstallation of the segment.</li> <li>3. Segment passes this item if all shortcuts placed in the Start Menus were removed.</li> </ol>
296.	<b>Item 6-17-15</b> [6.3.2. Registry, System & Shared components – Uninstall, p24]				<p><b>The uninstaller must accurately decrement the count on all components your application uses that are installed as shared components.</b></p> <ol style="list-style-type: none"> <li>1. Open file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\ c-report1.doc. Open same corresponding file c-report2.doc on the desktop after uninstallation of the segment. Compare new registry entries or + ref counts made in first report have a corresponding removal or – ref count on the second report.</li> <li>2. Openfile c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\DEINSTAL\EvalData\ c-report1.doc, examine for changes from baseline to after uninstallation of the segment.</li> <li>3. Segment passes this item if no discrepancy from the above sub-steps is noted.</li> </ol>
297.	<b>Item 5-74</b> [5.5.2.4, p. 5-78; 5.5.1.1, p. 5-60 (both provide related information only)]	█ █ █ █ █			<p>[All Segments except abbreviated segments] <b>If not a permanent segment, the DEINSTALL script and Comm.deinstall descriptor have been fully tested to ensure they correctly make the changes indicated and completely restore the system to the state it was in prior to loading the segment.</b></p> <ol style="list-style-type: none"> <li>1. Refer to the above results for assessment of the Comm.deinstall descriptor. If the segment fails item 5-96, then segment fails this item.</li> <li>2. Openfile c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\DEINSTAL\EvalData\Hd_delt.txt and file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\EvalData\Hd_delt.txt. Review contents of both Hd_delt.txt files, examining if any registry entries or changes made to include library ref counts, installed files and directory structures are restored to the state before installation. Segments may leave user created directories and data files, sharable DLLs, sharable fonts, and sharable registry entries.</li> <li>3. Manually evaluate the DEINSTALL script to ensure it does what it is supposed to do.</li> <li>4. Segment passes step if no discrepancies are found with the script or descriptor.</li> </ol>
298.	<b>Item 5-95</b> [no]				<p>[All Segments] <b>Segment installation has been tested through the same installation tools used by site operators. (TestInstall alone does <i>not</i> satisfy this requirement. The COEInstaller tool must be used to load <u>and</u> remove the segment.)</b></p>

## AFCTF SEGMENT - COE COMPLIANCE EVALUATION

Step #	I&RTS Ref.	TRUE	FALSE	N/A	Step Description and Comments
	reference]				<ol style="list-style-type: none"> <li>1. The intent is to ensure that a successful uninstall using the COEInstaller has been accomplished. No files or directories should remain in the \&lt;SEGMENT NAME&gt; directory structure after deinstall.</li> <li>2. Segment passes this item is the segment/SDFs successfully installed during step 52 and successfully deinstalls the complete full segment or abbreviated segment using the COEInstaller.</li> </ol>
299.	<b>Item 4-5</b> [2.1.4, Items 5 and 7, p. 2-23; 5.5.1.1, p. 5-60; 6.2, p.6-10 (all references provide only related information)]				[All Segments except Abbreviated Segmented COTS Segments] <b>For full segmentation segments, the segment can be installed and removed completely through the COE installation tools. If the segment is a “permanent” segment (i.e., it has no DEINSTALL file. See Chapter 5) and is not a candidate for removal, the segment has been tested to ensure that upgrades successfully preserve data files that must be retained during upgrades.</b> <ol style="list-style-type: none"> <li>1. Note the results of step 44 item 4-5. If that step failed, this item fails for the reasons specified above.</li> <li>2. Openfile c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\DEINSTAL\ EvalData\Hd_delt.txt and file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\ EvalData\Hd_delt.txt. Review contents of both Hd_delt.txt files, examining if any registry entries or changes made to include library ref counts, installed files and directory structures are restored to the state before installation. Segments may leave user created directories and data files, sharable DLLs, sharable fonts, and sharable registry entries.</li> <li>3. If an upgrade ensure that use of data files is retained.</li> <li>4. Segment passes item if no discrepancies are found.</li> </ol>
300.	<b>Item 4-6</b> [2.1.4, Items 5 and 7, p. 2-23; 5.5.1.1, p. 5-60; 6.2, p.6-10 (all references provide only related information)]				[Abbreviated Segmented COTS Segments Only] <b>For abbreviated segmentation segments, the segment descriptor files can be installed and completely removed through the COE installation tools while the segment itself can be completely removed using the vendor-provided installation/deinstallation functions. If the segment is a “permanent” segment and is not a candidate for removal, the segment has been tested to ensure that upgrades successfully preserve data files that must be retained during upgrades.</b> <ol style="list-style-type: none"> <li>1. Openfile c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\DEINSTAL\ EvalData\Hd_delt.txt and file c:\Seg_Eval\&lt;APPLICATION NAME&gt;\&lt;SEGMENT PREFIX&gt;\AFTRLOAD\ EvalData\Hd_delt.txt. Review contents of both Hd_delt.txt files, examining if any registry entries or changes made to include library ref counts, installed files and directory structures are restored to the state before installation. Segments may leave user created directories and data files, sharable DLLs, sharable fonts, and sharable registry entries.</li> <li>1. If an upgrade ensure that use of data files is retained.</li> <li>2. Segment passes item if no discrepancies are found</li> </ol>