**GENERAL**

This form is provided to promote the successful and consistent implementation of the software baseline (SWBL) requirements of [STD-342-100](http://engstandards.lanl.gov/ESM_Chapters.shtml#esm21), *LANL Engineering Standards Manual, Chapter 21, Software*.

A software baseline (SWBL) is a specification or product that has been formally reviewed and agreed upon, that thereafter serves as the basis for use and further development, and that can be changed only by using an approved change control process (Ref. NQA-1). A software baseline includes the computer program (code and [configuration] data) and the computer program documentation. The computer programs include the computer program code, and as applicable, configuration/data files and support software.

For software that has been approved for use, the SWBL may be considered the information and computer program files that are needed to run the software for a specific application (a complete backup). See attached SWBL example for items that may be listed as part of a SWBL.

If entering sensitive information (e.g., Unclassified Controlled Nuclear Information -UCNI), ensure proper Derivative Classifier/Reviewing Official reviews are performed and appropriate markings applied.

For additional detail on developing a software baseline (SWBL), see *Chapter 21, SOFT-GEN.*

LANL personnel: Endeavor to use Chapter forms as-is and report issues and improvement ideas to the Chapter 21 POC. POC may authorize other methods equivalent to chapter forms in writing.

LANL subcontractors must use Chapter forms to satisfy Chapter requirements for SSC software. For Non‑SSC software, subcontractors may either use their own forms or integrate, adapt, and reformat the forms; either approach is acceptable so long as key functions, data, and approvals are retained.

**header**

| **Field** | **Entry Information** |
| --- | --- |
| Software Name | Enter the name of the software in the upper right hand corner of the header as shown in the example form (e.g., Software Baseline for CBT). |
| SWBL No. | Enter the document number assigned to the SWBL. The number follows that of the SRLM’s document control/records management process. For software used in the operation of existing or new LANL facilities, use the numbering scheme and process specified in [AP-341-402](https://coe.lanl.gov/APs/default.aspx), *Engineering Document Management in Operating Facilities,* e.g.,SWBL-03-0216-1234. *The* [*CoE SharePoint Document Numbering Site*](https://coe.lanl.gov/APs/DocNum/SitePages/Home.aspx) *currently supplies the final, unique, sequential number for the string.* |
| Rev. | Enter the SWBL revision number. Initial approved issue of the software baseline is 0.  |

**1.0 software INFORMATION**

| **Field** | **Entry Information** |
| --- | --- |
| 1.1 | Enter the name and version of the software. |
| 1.2 | Enter the two-digit Technical Area (TA) number(s) where the software is used. If used sitewide, enter 99. |
| 1.3 | Enter the facility number(s) where the software is used. Follow AP-341-402 conventions for utilities, multiple, etc. (*e.g., if multiple, enter MULT…)* |
| 1.4 | Enter the facility name(s) where the software is used. |
| 1.5 | Enter the software identification number (SWID). The SWID should be the same SWID as on the Form [2033](http://int.lanl.gov/tools/forms/numerical.shtml). Keep SWID the same through minor revisions, and most major revisions unless the major revision is so different that the SRLM wishes to obtain a new SWID. SWIDs are obtained in accordance with [AP-341-402](https://coe.lanl.gov/APs/default.aspx), *Engineering Document Management in Operating Facilities.* Ensure the SWID is part of the SWBL and subsequent software documentation. |
| 1.6 | For SSC software, enter the equipment identification (CLI) number associated with the software per [ESM Chapter 1](http://engstandards.lanl.gov/ESM_Chapters.shtml#esm1), Section 200 (e.g., 03-0216-HVAC-BAS-1). For Non-SSC software, enter NA. |
| 1.7 | As applicable, identify the safety basis documents (e.g., Documented Safety Analysis; Safety Analysis Document) and controls therein that the software supports. Provide section references. If not applicable, indicated NA. |

**2.0 Software BASELINE - Documents**

| **Field** | **Entry Information** |
| --- | --- |
| 2.1 | Enter the document number of the document that must be controlled as part of a baseline. Examples include software design requirements, instructions for computer program use, test plans, documents that describe the system hardware configuration necessary to run the software, etc. Obtain and enter the number in accordance with the SRLM’s document control records/management system. Include revision number.***Note***: It is not necessary to reenter safety basis documents identified in Field 1.7. |
| 2.2 | Enter the document title. |
| 2.3 | Enter a description of the document. |
| 2.4 | Enter the location of the files. If attaching the files to the SWBL, enter the attachment name and attach electronic copies of the document files (e.g., on a compact disc or other media). Ensure the file names match the names listed in the SWBL.***Note***: Methods other than attaching the files (e.g., hyperlinking to documents in an electronic data management system [EDMS]), including a screenshot of the file location etc., may be used as long as they conform to the governing document control/records management process and ensure file confidentiality, integrity and availability/retrievability. For Read Only SSC computer programs that cannot be obtained, indicate that the computer program file location is within the SSC and/or the associated SSC spare part. |

**3.0 Software BASELINE – Computer programs**

| **Field** | **Entry Information** |
| --- | --- |
| 3.1 | Enter or attach (e.g., screenshot of the file directory) the computer program name, revision, file extension (e.g., exe) of the computer program that must be controlled as part of the baseline. If the file date is part of the revision number/unique file identifier, then include the file date. If the file date is not part of the unique file identifier (e.g., some file dates change when copied even when no changes to the file are made), then do not include the file date.Include the computer program code files and as applicable, configuration files and support software. Examples include source files, object files, database files, etc.  |
| 3.2 | Enter the computer program description. Describe what it does/how it supports the overall use of the software. |
| 3.3 | Enter the location of the files. If attaching the files to the SWBL, enter the attachment name and attach electronic copies of the computer program files (e.g., on a compact disc or other media). Ensure the file names match the names listed in the SWBL. See note in 2.4 for alternate methods. |

**4.0 prepared by/reviewed by/approved by**

| **Field** | **Entry Information** |
| --- | --- |
| 4.1 | Enter the SWBL preparer’s (SO) name, Z number, organization, signature, and date. For assistance in determining the SO, see SOFT-GEN Appendix C: *SO and SRLM Decision Diagram for FAC-COE.* |
| 4.2 | Review and if acceptable, approve by entering SRLM name, Z number if applicable, organization, signature, and date. For assistance in determining the SRLM, see SOFT-GEN Appendix C: *SO and SRLM Decision Diagram for FAC-COE.* |
| 4.3, 4.n+1… | Add additional reviewers/approvers as required by the SRLM and/or the SRLM’s document control process. Review and as appropriate, approve by entering additional reviewer/approver name, Z number, organization, signature, and date. Enter none or not applicable (NA) if there are no additional reviewers/approvers. |

**5.0 Attachments**

| **Field** | **Entry Information** |
| --- | --- |
| 5.1 | List attachments as appropriate. Enter the attachment number. |
| 5.2 | Enter the attachment title. |

**6.0 REVISIONS**

| **Field** | **Entry Information** |
| --- | --- |
| 6.1 | Enter the SWBL revision number and update the revision number in the form header. |
| 6.2 | Enter the date of the SWBL revision. |
| 6.3  | Enter a summary description of the SWBL change and the reason for the change. |

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| **1.0 software INFORMATION** |
| 1.1 Software Name and Version: | Combustible Material Tracker (CBT) Software, V5.2 |
| 1.2 TA No.: | 03 | 1.3 Facility No.:  | 2333 | 1.4 Facility Name:  | Nonproliferation Security Facility (NSF) |
| 1.5 SWID: | 03-2333-0047 | 1.6 Equipment ID: | NA |
| 1.7 Software Description: |
| The software is used as a tool to track combustible material as part of the NSF combustible material tracking system. |
| 1.8 Safety Basis Document(s) and Control(s) Supported: |  |

| **2.0 software baseline – documents** |  |
| --- | --- |
| 2.1 Document Number (including revision) | 2.2 Document Title | 2.3 Document Description |
| SWDS-15-03-NSF-0001 | CBT Software Data Sheet (SWDS) | Documents software-specific information to supplement ESM Chapter 21 |
| SWRS-15-03-NSF-0002 | CBT Software Requirements Specification | Requirements document |
| SWTM-15-03-NSF-0003 | CBT Software Requirements Traceability Matrix | Traceability document that traces requirements from the SRS through the software lifecycle. |
| SWRL-15-03-NSF-0004 | CBT Software Risk List (Register) | Listing and ranking of risks for the software throughout its lifecycle. |
| SWHA-15-03-NSF-0005 | CBT Software Hazard Analysis | Hazard analysis of software and integrated software/hardware system. |
| SWDD-15-03-NSF-0006 | CBT Software Design Document | Software design. Includes system configuration including associated hardware and facility interfaces and key support software configuration |
| SWTP-15-03-NSF-0007 | CBT Software Acceptance Test and In-Use Test Plan | Test plan document that describes acceptance and in-use tests. |
| SWTR-15-03-NSF-0008 | CBT Software Acceptance Test Report | Describes acceptance test results and acceptance. |
| SWMM-15-03-NSF-0009 | CBT Software Maintenance Manual | Detailed technical manual for software subject matter expert (SME) to use for troubleshooting and maintaining the software. |
| SWUM-15-03-NSF-0010 | CBT Software User Manual | User manual. Includes general instructions for use, including limitations. |
| AP-15-03-NSF-0007 | CBT Software Administrative Procedure | Administrative procedure that integrates the software into the facility day-to-day operations. |
| SWLI-15-03-SNF-1110 | CBT Software License/License Key | License and license key required to use the software |
| 2.4 Document file location: |
| [Attachment 1: CBT SWBL-15-03-2332-0234 Document Files](http://int.lanl.gov/org/padops/adnhho/science-technology-operations/training/ta-03-2322.shtml). |

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| **3.0 software baseline – computer programs** |  |
| 3.1 Computer Program File/Folder Name (including revision) | 3.2 Computer Program Description |
| CBT 1.02.exe | Primary executable computer program that provides overall system function |
| CBT Master Database 1.2. mdb | The primary database of material. |
| Microsoft Windows XP Professional SP1.1 | Off the shelf (OTS) support software that is the operating system on client computers. |
| Microsoft Server 2003 R2 Folder | OTS support software that is the operating system on computer servers. |
| Microsoft Access Database 2000 SP1.01 Folder | OTS support software that provides data storage on servers and client computers. |
| Microsoft Outlook 2013 SP1.0 Folder | OTS support software that provides email notifications of transactions. |
| 3.3 Computer program file location:  |
| [Attachment 2: CBT SWBL-15-03-2332-0234 Computer Program Files](http://int.lanl.gov/org/padops/adnhho/science-technology-operations/training/ta-03-2322.shtml). |

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| **4.0 PREPARED BY/REVIEWED BY/APPROVED BY** |
| 4.1 Prepared By – Software Owner (SO), *(Name, Z number, Organization, Signature and Date):* |
| Tom Thompson, 143987, NEN-2, 10/1/2015 |
| 4.2 Reviewed and Approved By – Software Responsible Line Manager (SRLM), *(Name, Z number, Organization, Signature and Date):* |
|  Michael Bradley, 114987, NEN-2, 10/2/2015 |
| 4.3 Reviewed and Approved By – Others as required by SRLM, *(Name, Z number, Organization, Signature and Date):* |
| None Required by SRLM (Not Applicable) |

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| **5.0 ATTACHMENT lIST** |
| 5.1 Attachment No. | 5.2 Attachment Title |
| 1 | [CBT SWBL-15-03-2332-0234 Document Files](http://int.lanl.gov/org/padops/adnhho/science-technology-operations/training/ta-03-2322.shtml) |
| 2 | [CBT SWBL-15-03-2332-0234 Computer Program Files](http://int.lanl.gov/org/padops/adnhho/science-technology-operations/training/ta-03-2322.shtml) |

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| **6.0 revisions** |
| 6.1 Revision | 6.2 Date | 6.3 Change Description and Reason for Change |
|
| 0 | 10/02/2015 | Original Issue |
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