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1.0 PURPOSE, SCOPE AND APPLICABILITY

This section describes the “how, when, and who” for inventorying software. See Table 21.5-1 for a summary of this section. See Chapter 21 applicability in SOFT-GEN.

2.0 KEY DEFINITIONS AND ACRONYMS

See SOFT-GEN for key definitions and acronyms.

3.0 SSC SOFTWARE INVENTORY

- A. How. Inventory **safety** SSC software in the LANL Institutional-level safety software inventory in accordance with [QPA-DO-FSD-001](#), *LANL Safety Software Inventory Procedure*. **Non-safety** SSC software is not required to be inventoried.

Note: See ESM Chapter 21, SOFT-GEN and Form [2033](#) to determine if the software is safety software.

- 1. Provide required information, namely:
 - a. Software name,
 - b. Description,
 - c. Version identifier,
 - d. Category,
 - e. Software Risk Level (SRL),
 - f. Application,
 - g. Software Responsible Line Manager (SRLM), and
 - h. Other information as required by [QPA-DO-FSD-001](#).

Table 21.5-1 SOFT-INV Section Summary								
(This table is a summary only and does not include all requirement details. See text for details.)								
Activity No.	SQM Activity	Software Type ¹		Implementation Detail			P1040 R9 Ref. Section	ESM Ch. 21 Ref. ⁵
		Safety	Non-Safety	How	When ²	Who ^{3,4}		
1. For <u>SSC</u> Software								
1	Inventory safety software	R	-	<ul style="list-style-type: none"> Provide safety software inventory information Inventory safety software Per QPA-DO-FSD-001, <i>LANL Safety Software Inventory Procedure</i> 	<ul style="list-style-type: none"> Provide SSC software inventory information per ESM Chapter 1, Z10 submittal schedule Inventory as soon as practical after approval for use Revise as needed to ensure the inventory is complete and accurate 	<ul style="list-style-type: none"> Design Agency provides safety SSC software inventory information in PEL for designed and acquired software; see SOFT-GEN for Subcontractor responsibilities (D) SRLM inventories safety software (D) 	3.3.7	SOFT-GEN, 3 SOFT-INV, 3
1. For <u>Non-SSC</u> Software								
1	Inventory safety and non-safety software	R	R	<ul style="list-style-type: none"> Inventory safety software in the Institutional-level safety software inventory per QPA-DO-FSD-001, <i>LANL Safety Software Inventory Procedure</i> ES-Div: Inventory safety and non-safety software in the Non-SSC software inventory as required by desk instruction (future); provide Form 2033 to ESSC with request to inventory 	<ul style="list-style-type: none"> Inventory as soon as practical after approval for use Revise as needed to ensure the inventory is complete and accurate 	<ul style="list-style-type: none"> Design Agency provides safety SSC software inventory information in PEL for designed and acquired software; see SOFT-GEN for Subcontractor responsibilities (D) SRLM inventories software (D) ESSC supports ES Non-SSC software inventory additions/changes (S) 	3.3.7	SOFT-GEN, 3 SOFT-INV, 4

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Table 21.5-1 SOFT-INV Section Summary (This table is a summary only and does not include all requirement details. See text for details.)								
Activity No.	SQM Activity	Software Type ¹		Implementation Detail			P1040 R9 Ref. Section	ESM Ch. 21 Ref. ⁵
		Safety	Non-Safety	How	When ²	Who ^{3, 4}		
Notes: ¹ See SOFT-GEN and Form 2033 to determine if software is safety software or non-safety software. R = Required; “-“ = Not required. ² “When” specifies when the activity must be performed. ³ D = Develop or execute. S = Support. ⁴ SRLM = Software Responsible Line Manager. ESSC = Engineering Services (ES) Software Coordinator as indicated on the ES Division Office (ES-DO) website . See SOFT-GEN (e.g., flow diagram) for assistance in identifying the SRLM. ⁵ Ref. = ESM Chapter 21 section name and subsection number (e.g., Section SOFT-GEN, Subsection 3, Software Identification and Determination).								

5 Section SOFT-INV: Inventory

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Note: Do not enter classified information into the inventory.

2. Provide changes to the inventory to ensure completeness and accuracy.
 3. Subcontractors that provide SSC software to LANL must provide minimum required SSC Safety Software inventory information as part of the Project Equipment List (PEL) or via other submittal per ESM Chapter 1, Section Z10.
 4. If LANL has access to and/or configuration control of SSC safety software other than through replacement of the SSC¹, then it must be inventoried on the Institutional-level safety software inventory.
 5. SSC safety software may be inventoried as a software collection. For example, there may be various software elements – control system executable, Human Machine Interface (HMI) software, field element embedded software – associated with a gas handling process control system software. The software may be inventoried as one item, the gas handling process control system software. Note that the various software elements must be baselined and under configuration management per SOFT-GEN.
- B. When. Inventory SSC safety software as soon as practical after it is approved for use and as needed to ensure the inventory is complete and accurate. Provide inventory information in accordance with the PEL or other submittals schedule per ESM Chapter 1, Section Z10.
- C. Who. Design Agency provides safety SSC software inventory information in PEL for designed and acquired software; see SOFT-GEN for Subcontractor responsibilities. The SRLM² is responsible for inventorying safety SSC software.

4.0 NON-SSC SOFTWARE INVENTORY

- A. How.
1. Inventory **safety** Non-SSC software in the Institutional-level safety software inventory in accordance with [QPA-DO-FSD-001](#).
 - a. Subcontractors: Safety Non-SSC software used by a subcontractor and prescribed or otherwise controlled by LANL or DOE (e.g., toolbox codes) must be inventoried. The Subcontractor shall provide the minimum required safety software information to inventory such software in the institutional-level safety software inventory.
 2. ES-Div: Follow the ES-Div inventory process (e.g., future desk instruction), e.g., inventory **safety and non-safety** Non-SSC software in the Engineering Services (ES) Non-SSC software inventory as specified by the ES Software Coordinator (ESSC). *Guidance: As applicable, the SRLM should indicate whether the software is simple and easily understood software used in SSC designs (see definitions). The SRLM should provide the Form 2033 to the ESSC if not previously provided. See the [ES Division website](#) for ESSC*

¹ Includes LANL service contracts where suppliers may upgrade/flash new software on SSCs.

² The activity may be delegated however the responsibility is retained by the SRLM.

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contact information (e.g., ES-Software@lanl.gov) and the ES Non-SSC software inventory.

- Note:** As described in the SOFT-MAINT, the software should not be used unless it is listed on the ES inventory or otherwise approved for use (SWAU). The listing of the software on the ES inventory is the primary method to communicate SWAU.
- B. When. Inventory Non-SSC software (both safety and [for ES-Div] non-safety) concurrent with SWAU and as needed thereafter to ensure completeness and accuracy.
 - C. Who. The SRLM is responsible for inventorying Non-SSC safety software (*for ES-DIV, with support from the ESSC*).