CMMS Field Dictionary

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1.0 Usage

A. This document supersedes AP-341-404, Master Equipment List Attachment A (per VAR-10424).

B. Screen Name column is what's shown on the CMMS panel label; CMMS's actual field name that will appear on reports and work orders may differ until the program is changed.

C. RED text indicates that LANL CoE requires this data if it is applicable to item. The minimum data required by the CMMS to create a record is somewhat less and not relevant to this standard.

D. This document references other Chapter 1 200-series sections on equipment numbering and labelling (e.g., 200, 210, 220, and 230) in multiple places. For brevity, only the Section number is given.

2.0 CMMS Field Descriptions (main fields)

Screenshots of the main CMMS D031 panel (screen) appear at the end of this document. The order of fields/descriptions herein generally follows D031 initially; fields following those are present in other CMMS panels.

<table>
<tr><th>Screen Name
Red = Required
(Max. Characters)</th><th>CMMS Field Description</th><th>CMMS Panel</th></tr>
<tr><td>Facility
(3)</td><td>ID of the Facility Operations Directorate as assigned by Maintenance and Site Services (MSS) e.g., F01, F02, etc. This ID is not part of the SSC's technical baseline and should not appear on such documents or labels. FOD boundaries and thus structure ownership can change over time, but now is:
<table>
<tr><th>CMMS FOD</th><th>Scope</th><th>FOD Assigned</th></tr>
<tr><td>F01</td><td>TA-55</td><td>TA55-DO</td></tr>
<tr><td>F02</td><td>CMR</td><td>TA55-DO</td></tr>
<tr><td>F03</td><td>Weapons Facilities Operations (WFO)</td><td>WFO-DO</td></tr>
<tr><td>F04</td><td>Los Alamos Neutron Science Center (LANSCE)</td><td>LFO-DO</td></tr>
<tr><td>F05</td><td>those Chemistry & Waste Facilities at TA-54 managed by LANL (not N3B) – RANT, WCCRF</td><td>TA55-DO</td></tr>
<tr><td>F06</td><td>Science and Technology Operations</td><td>STO-DO</td></tr>
<tr><td>F07</td><td>Institutional Facilities</td><td>UI-DO</td></tr>
<tr><td>F08</td><td>Utilities</td><td>UI-DO</td></tr>
<tr><td>F09</td><td>TA-21 (currently managed by N3B)</td><td>N/A</td></tr>
<tr><td>F10</td><td>Chemistry & Waste (RLUOB, RLWTF, TWF, TLW, etc.)</td><td>TA55-DO</td></tr>
</table></td><td>D030</td></tr>
<tr><td>Unit
(6)</td><td>Technical Area and Building number joined together to form a six number field. Example: Enter TA-16, Building 205 as 160205
This is used in CMMS but may be omitted from each component's identification in design documents and facility procedures if the TA and Building are identified on the document (e.g., title block of drawing, header or title of procedure). Utilities and other items not associated with a building typically use 0000 for the building number or use FD0000 for the string (e.g., valves in roadway/lawns/mobile equip). If no single TA use 990000.</td><td>D030</td></tr>
<tr><td>Operating System ID
(6)</td><td>A grouping of related Systems. Choose acronym from Section 210, System List.
Note: The Opsys is the higher-level system in the 2-level system hierarchy (System ID being the other), per the Section 220 system boundaries. [Ex: VNT-HVAC-FE, where the VNT would be the Opsys.]</td><td>D030</td></tr>
<tr><td>Room # (was Division)
(20)</td><td>Usually the room number where the item is located (example: 101), but could be corridor, wing, outside (OUT), basement room (e.g., B0003). For mobile equipment, use ALL. Room is the screen label but Division is currently the actual field title in the CMMS and will appear on reports and work orders until updated.</td><td>D030, D031</td></tr>
<tr><td>Area
(8)</td><td>Part of the hierarchy but optional; use if needed. TA55 may use for associated glovebox in the future. Most existing data is better captured elsewhere. Examples: BANDELIE, LACEFGEN, VAULT.</td><td>D030</td></tr>
</table>

Screen Name Red = Required (Max. Characters)	CMMS Field Description	CMMS Panel
System (6)	The system identification acronym. Systems are defined as elements (subsystems, equipment, and/or components) with physical or notional interconnection and collective purpose. See Section 210, System List. **Note:** This is the second level within the 2-level OpsSys/System hierarchy [Ex: VNT-HVAC-FE, where HVAC would be the system-level.] Note: Field tags may use System alone (preferred) or OpSys and System	D030
ML (was Class) (6)	The management level: ML1, ML2, ML3, or ML4. "TBD–Requires Engr. Review" is also a choice, only use where absolutely necessary. The ML must be based on management level determination performed per AP-341-502, Management Level Determination. **NOTE: ML is the screen label but Class is the actual field title in the CMMS and will appear on reports and work orders until updated.**	D030, D031
Equipment (Type) (6)	A more general category of equipment. Acronym from Section 230. Equipment Type is the higher–level category of the 2-level approach (Subtype being the lower level). Type examples: VALVE, PUMP. Types are qualified by Facility, meaning MSS-WC must add Types needed to drop-downs based on request.	D030
Equipment Sub-Type (4)	Equipment Sub-Type is the lower–level category of the 2-level approach (Subtype being the lower level). Examples: check valve=CV, vacuum pump=PV. Acronym from Section 230. Sub-Types are qualified by Type, meaning only those Sub-Types associated with the Type will be in the drop-down.	D030
Equipment ID (or Number) (15)	This is an alphanumeric code that ensures a unique identification string for each item (equipment or component), normally a concatenation of Sub-Type and a unique sequence number, usually with a hyphen between. It is captured in the right-hand (unlabeled) CMMS Equipment or Component field. See Section 200. (Ex. FE-001).	D030
Component Type (6)	Components of equipment should be added to the associated Equipment when information on them warrants capture, including when they need separate PMs/history or have a lower ML level. An example would be a PRV on a compressor. The acronyms are same as those for Equip Type from Section 230. See Section200 itself for more discussion on components.	D030
Component Subtype (4)	Choose the Component Subtype acronym from Section 230.	D030
Component ID (or Number) (15)	A concatenation of Component Sub-Type and a sequence number in a similar manner to the Equipment Number. (Example: MO-001, which is the motor of exhaust fan number 1). Refer to Section 200.	D030
Property Group (4, but limit to 1)	Choose P (Programmatic), R (Real Property), or U (Utilities). P is for equipment that directly supports a programmatic/scientific mission. R is for structures and equipment that supports facilities. U is for equipment and infrastructure maintained by Utilities.	D030

Screen Name Red = Required (Max. Characters)	CMMS Field Description	CMMS Panel
PEG (4) + (20)	Property equipment group. PEG allows one to associate multiple equipment items, even if they are in different Systems. A pulldown. Examples: VSS (vital safety system), PSS (pressure safety system). Usage: PSS in the left-hand field and P00065 (the PSID, 6 characters without hyphen) in the right-hand field.	D030
Location (Region, ID, Seq'ce) (3) + (8) + (6)	Not used at LANL, but for commercial transmission & distribution utilities and customer tracking.	D030 D550
Equipment-Component-Tag (30)	Exactly what is shown on the item's field label, if present (a few items cannot be practically labeled). It is imperative that they match because MEL realignment circa 2019-20 caused some MEL data to change while field labels stayed the same; if the tag field and tag itself match sufficiently then configuration management is maintained.	D030
Eq-Comp Alt-Tag (30)	A place to capture previous label information, what's on a second label, or the pressure safety ID (PSID; in addition to PEG field above). For existing CMMS items whose ID string data was affected by the circa 2019-20 realignment, the new (realigned) IDS should be entered here.	D030
(Equipment/Component) Name (65)	Enter descriptive data for identifying equipment/component.	D030
Equipment Name (Additional Name) (65)	Normally unused but available to capture additional item information not appropriate for elsewhere.	D030
Location Description (65)	Describe the location of item. Note: Brief location information can also be integrated into the Equipment Number field if desired, see Section 200.	D030
Client ID (12) + (20)	Not used at LANL, may be associated with Location (Region-ID-Sequence) above.	D030
(Equipment) Status (20) + (8)	Equipment status may be: ▪ Design – new equipment not yet fully operational; this allows creation of work orders and history capture. ▪ Active – equipment is available for service. ▪ Inactive – equipment is waiting to be removed/decommissioned/ deconstructed, therefore no maintenance activities are required. <u>And these, which cannot be tied to a work order:</u> ▪ Retired – non-functioning/inoperable and waiting to be removed. ▪ Removed – equipment is disassembled and removed. Removed equipment is maintained in MEL for historical information. ▪ Deleted – Used when a new item entry is made mistakenly. The 8-character field captures the date of last status change.	D030
Operating Status (20) + (~8) + (~6)	Automatically populated by CMMS based on status chosen above.	D030

<table>
<tr><th>Screen Name
Red = Required
(Max. Characters)</th><th>CMMS Field Description</th><th>CMMS Panel</th></tr>
<tr><td>Safety Classification
(3)</td><td>The safety functional classification (relates to ML).
<table>
<tr><th>Use…</th><th>…when</th></tr>
<tr><td>SC (safety class)</td><td>ML-1</td></tr>
<tr><td>SS (safety significant)</td><td>ML-2</td></tr>
<tr><td>SAF (safety)</td><td>ML-3 for nuc/rad safety</td></tr>
<tr><td>MS (mission support)</td><td>ML-3 for mission support reasons</td></tr>
<tr><td>GS (general service)</td><td>ML-4</td></tr>
</table>
Use SAF if SSC was determined to be ML-3 based on nuclear or rad safety. E.g., AP-341-502 r6 ML-3 Criteria 1, 2 or 5:
1. Is the SSC Active AND identified as an Other Hazard Control (OHC) or defense-in-depth (DID) control in the Hazards Analysis (HA) tables of a Safety Basis Document?
2. Is the SSC Passive AND identified as an OHC or DID control in the HA tables of a Safety Basis document for providing a barrier between the facility worker and the hazard (e.g., radioactive material, chemical exposure)?
5. For a Less than Hazard Category 3 (<HC-3) nuclear facility or accelerator facility, can the failure of the SSC result in a Radiological release?
Use MS for all other ML-3 (e.g., Criteria 3, 4, 6-8, or 10).</td><td>D031</td></tr>
<tr><td>Maintenance Program Code
(1) + (32+)</td><td>There are 9; choose all that apply; only the first 5 print on work package. B= Builder Managed Equipment; C=Crane Inspection; E = Elevator Inspections; G = Above Ground Storage Tank; H = Heat Generating Device; I= Lightning Protection Inspections; L = Life Safety Inspections; R = Relief Device Inspection; V= Pressure Vessel Inspections</td><td>D031</td></tr>
<tr><td>Crit Safety Eng Control</td><td>Y (Yes), if the Criticality Safety Evaluation designates as controlled; otherwise N (No). NOTE: Critical Safety Eng Control is the screen label but Critical-Equipment is the actual field title in the CMMS and may appear on reports and work orders until updated.</td><td>D031</td></tr>
<tr><td>Seismic Cat
(3)</td><td>Historically, this was the performance category of the item, e.g., PC-1, PC-2, PC-3 (legacy terminology). For new equipment or new determinations, enter the IBC 1604.5 RC designation (I–IV as Arabic; e.g., RC2) or, for HC 1–3 nuclear facilities, enter the NPH NDC category (1–3) with limit state (A–D), thus e.g., N1A, N1B, N2B. See STD-342-100, Engineering Standards Manual, Chapter 5 (Section I regarding crosswalks) for discussion; if the seismic category is unknown, consult with a structural engineer.</td><td>D031</td></tr>
<tr><td>Q Level
(1)</td><td>Quality level. May be used for quality risk level (QRL) per P840-1 Procurement Quality designation in the future (e.g., 1, 2, or 3).</td><td>D031</td></tr>
</table>

Screen Name Red = Required (Max. Characters)	CMMS Field Description	CMMS Panel
Uniquely Tracked Commodity (UTC)	This is a CMMS feature used little/none at LANL, though useful for items that move location but need history (e.g., of calibration or use) such as relief valves, motors, etc. In addition to allowing definition of functional slots (component location identifiers) as equipment and component items, Work Management supports the tracking of serial numbered pieces of equipment by providing the UTC. Maintenance history can be tracked by slot as well as by a serialized piece of equipment (UTC). A bill of material may be developed to identify the parts required for either a UTC or an equipment/component for which a manufacturer and model number have been identified.	D034 D071
Parameters (20) (only required as indicated on next page or elsewhere)	These are used to capture details such as make, model, operating parameters, and drawing numbers. Users may enter data in any available parameter field or utilize templates that have the fields generally associated with a type or subtype of equipment. Examples of templates: Elevator (Hydraulic); Elevator (Traction); Fire Protection; Generic; Pressure Vessel Some generic parameters are listed on the input spreadsheet (*Att. 2)*; more specific templates are available in a separate Section 200 attachment (*Att. 3*)	D071

3.0 Popular Parameters

A comprehensive parameter listing is attached to Section 200.

Field Name	Field Description (on CMMS D071 panel)
Note: The MEL upload worksheet provides columns to capture most/all the following additional data. Except as noted, this information is not required; however, it should be provided if known. *This will enhance the ability to maintain and track history as well as assist in procurement of items.* All parameter fields are 20 characters maximum.	
Capacity/Pressure/Temperature	A parameter important to criticality safety, pressure safety, other matters.
Key Operating Parameters	The key operating parameters of the item, e.g., vibration, temperature, pressure, level, voltage, etc. Enter normal readings and high/low alarm trigger points, as applicable.
Install Date	Date of installation.
Manufacturer	The name of the item manufacturer.
Model	The item model number.
Owner (Group)*	Owner of the item. Available directly and on the Generic parameter template. Used for pressure safety program, etc.
Part Number/Serial Number	The part number of the item.
Pressure System ID (PSID)	The Pressure System ID, e.g., P01234 or P0123. This can be in addition to the primary place, the Property Equipment Group's right-hand field.
Property Number	Assigned property number if present.
Reference Documentation	Reference documents e.g., drawing, procedures, SDD, etc.
Serial Number	The serial number of the item
Setpoint	The set point of the pressure relief or other device
Vendor	The name of the item vendor

* The Owner field is required for pressure safety items—along with any additional fields required by other pressure safety policies (e.g., ESM Ch. 17 or P101-34 Pressure Safety or its associated functional series documents). Owner is the SME, POC, or contact that coordinates the overall operation, maintenance, design (code compliance), documentation, and/or construction associated with of a pressure system. At time of writing, P101-34 and ESM Chapter 17 identify this assignment at "system owner".
Guidance: Use of all relevant parameters on the templates for pressure regulating valves, pressure vessels, and pressure safety valves is encouraged (see CMMS Parameters Workbook attached to Section 200).

4.0 CMMS Screenshots

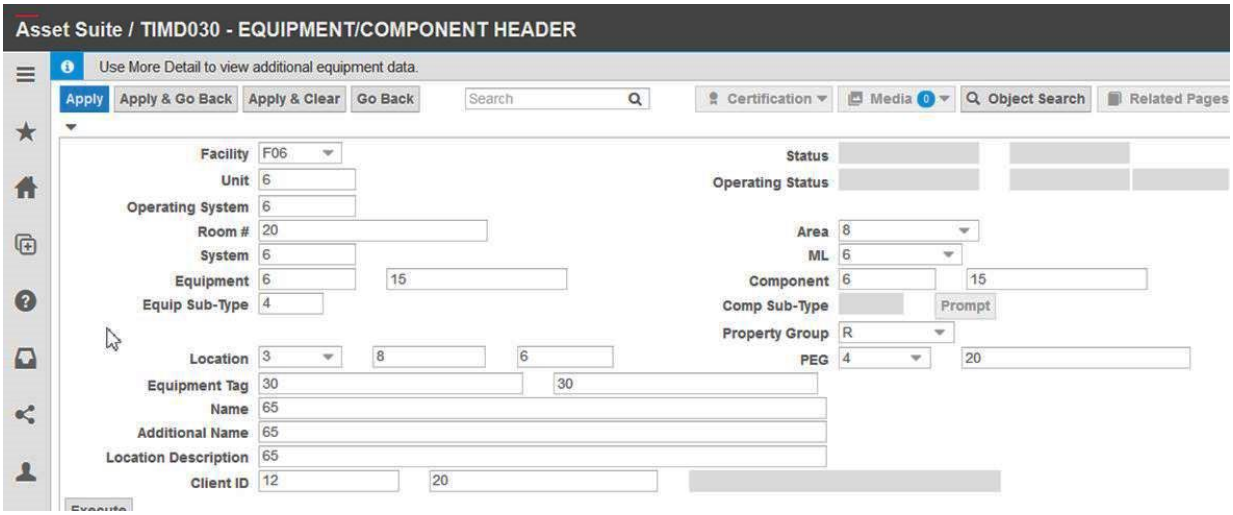

Figure 200-Att1-1: TIM D030 "Equipment/Component Header" Screen showing Field Layout and Character Lengths (CMMS AS9)

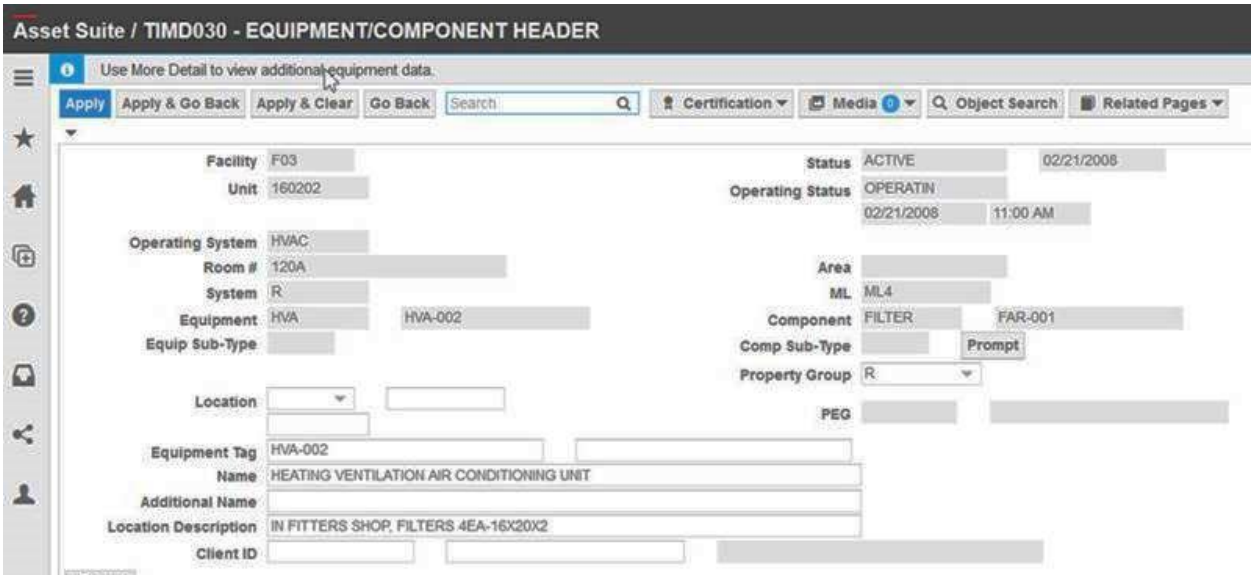

Figure 200-Att1-2: TIM D030 "Equipment/Component Header" Screen showing Field Usage Examples

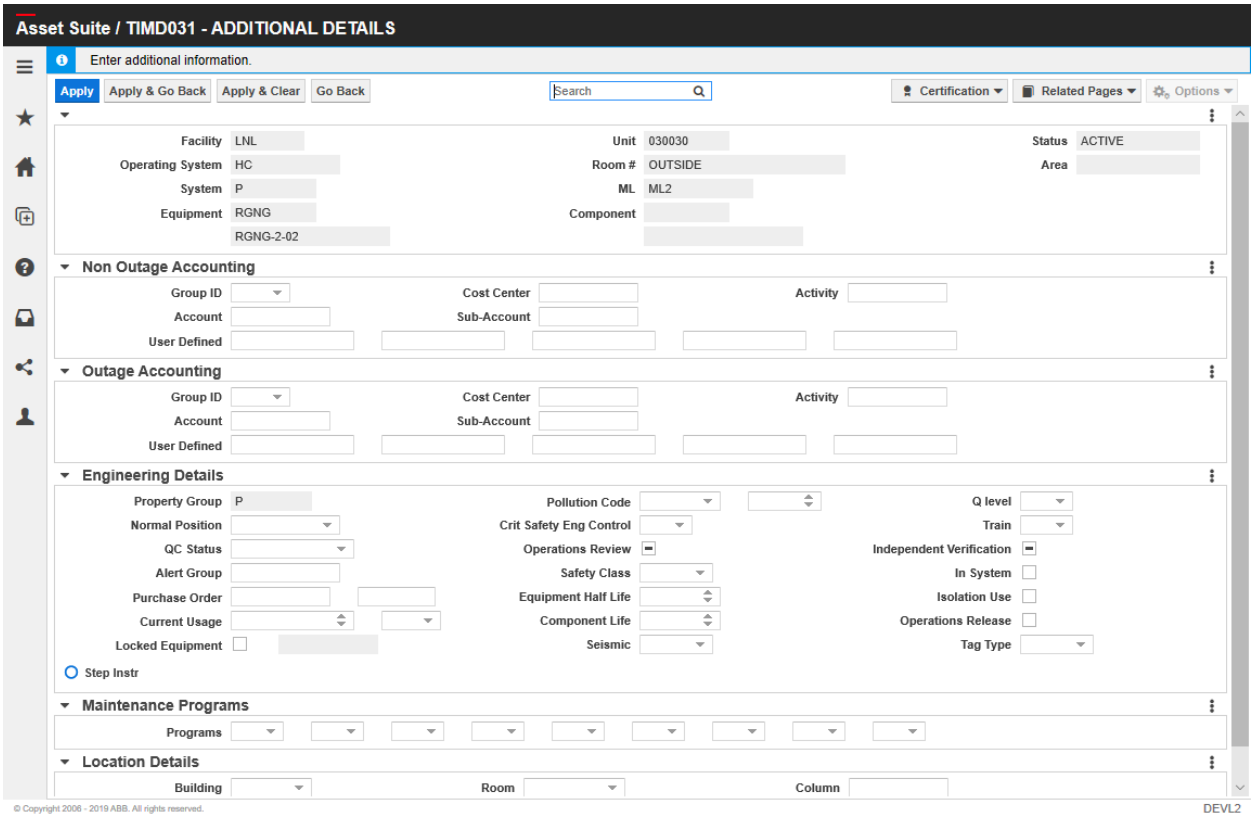

Figure 200-Att1-3: TIM D031 "Additional Details" Screen

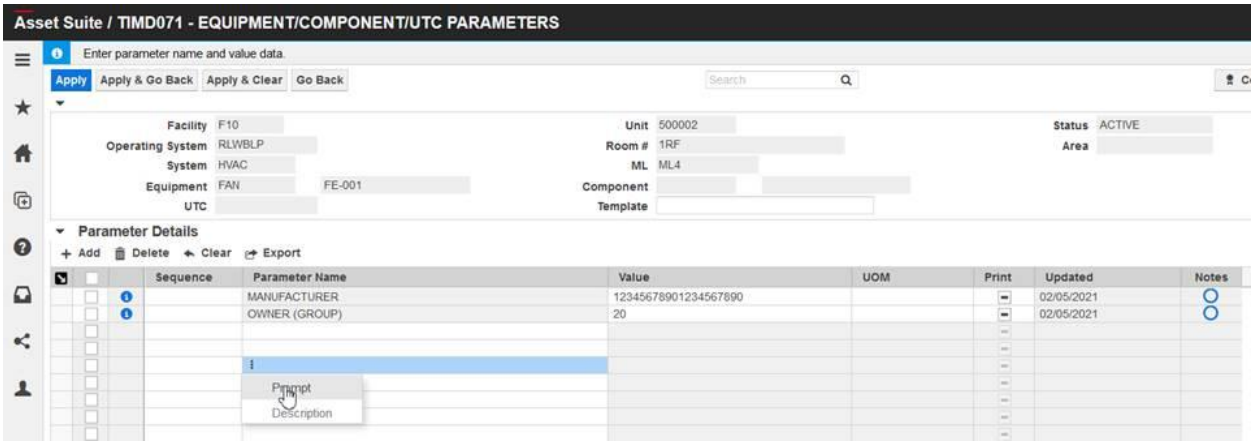

Figure 200-Att1-4: TIM D071 "Equipment/Component/UTC Parameters" Screen