

Importing Maintenance Items and Defects

CAMP Integration


Reference	Revision	Date
TL-UGD-CMP-002	1.2	21st July 2022

Overview

This functionality is designed for operators that use CAMP as the primary source of upcoming maintenance items for an aircraft. The **Due List** from CAMP is then imported into the Tech Log to both drive the aircraft serviceability widgets and provide a list of upcoming items. This section provides details on how the integration works.

Note that there is no return path from Tech Log. If a Maintenance Item is created within the Tech Log Web Dashboard, or as a Maintenance Action when raising a Defect, we do not have a mechanism to transfer them back to CAMP.

Within the Tech Log Web Dashboard, Maintenance Items are marked according to their source. In this example, the items marked with a yellow icon and the word CAMP have been imported from the CAMP Due List, while the blue/TrustFlight labelled items were created directly within the Tech Log application.

<input type="checkbox"/>	OOP  Airframe, Maintenance Procedure for Outflow Valve (OFV)	 TrustFlight Created: 2021-04-27
<input type="checkbox"/>	SCH  Airframe, Battery cap check	 TrustFlight Edited in: TrustFlight
<input type="checkbox"/>	SCH  Airframe, DETAILED INSPECTION OF CREW OXYGEN MASKS	 CAMP Imported: 2022-01-06
<input type="checkbox"/>	SCH  Airframe, LUBRICATION OF AILERON POWER CONTROL UNITS (PCUS)	 CAMP Imported: 2021-09-29
<input type="checkbox"/>	SCH  Airframe, RESTORATION (OVERHAUL) NO. 2 LIFE RAFT	 CAMP Imported: 2021-11-15

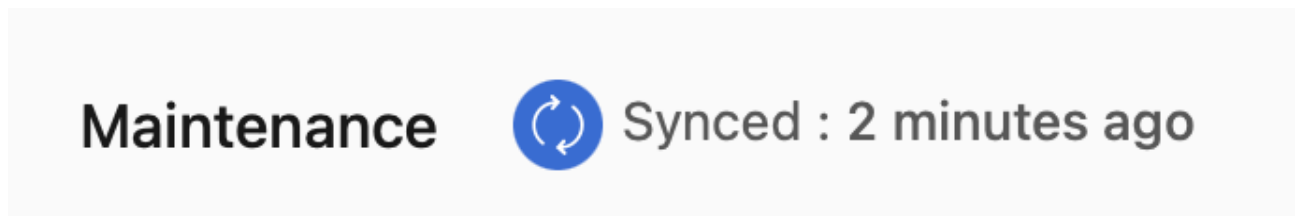
Types of Maintenance Items

All **Due List** Items in CAMP will be imported as **Maintenance Items** in the Tech Log system. These include **Life Limited**, **Scheduled** and **Out of Phase**.

Defects (referred to as **Discrepancies** within CAMP) are also imported from CAMP, however these will always be imported without following the Review/Approval flow (see **Reviewing Imported Items** below).

Importing Frequency

Each aircraft that has an enabled CAMP integration will automatically attempt to synchronise every 3 hours. You can confirm the last successful sync time, and trigger a manual sync from the Maintenance List. Simply click the blue icon to request a sync:

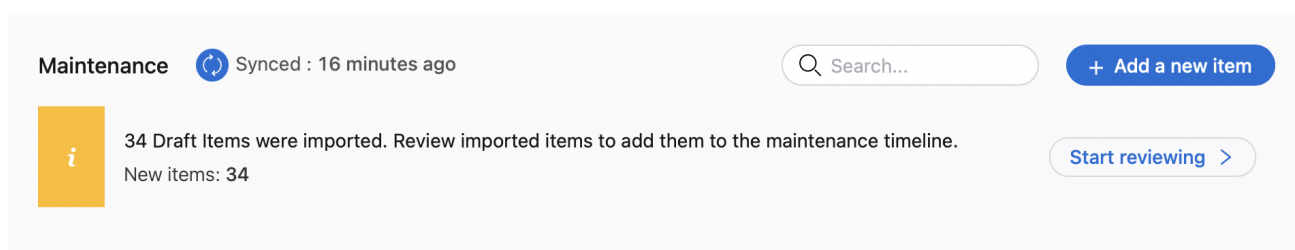


A new aircraft added to the CAMP Integration will be detected by the Tech Log application at the next automatic sync. After this point, the blue sync icon will appear for the aircraft and allow you to trigger manual syncs in the future. If this does not happen, please [Contact Support](#).

Reviewing Imported Items

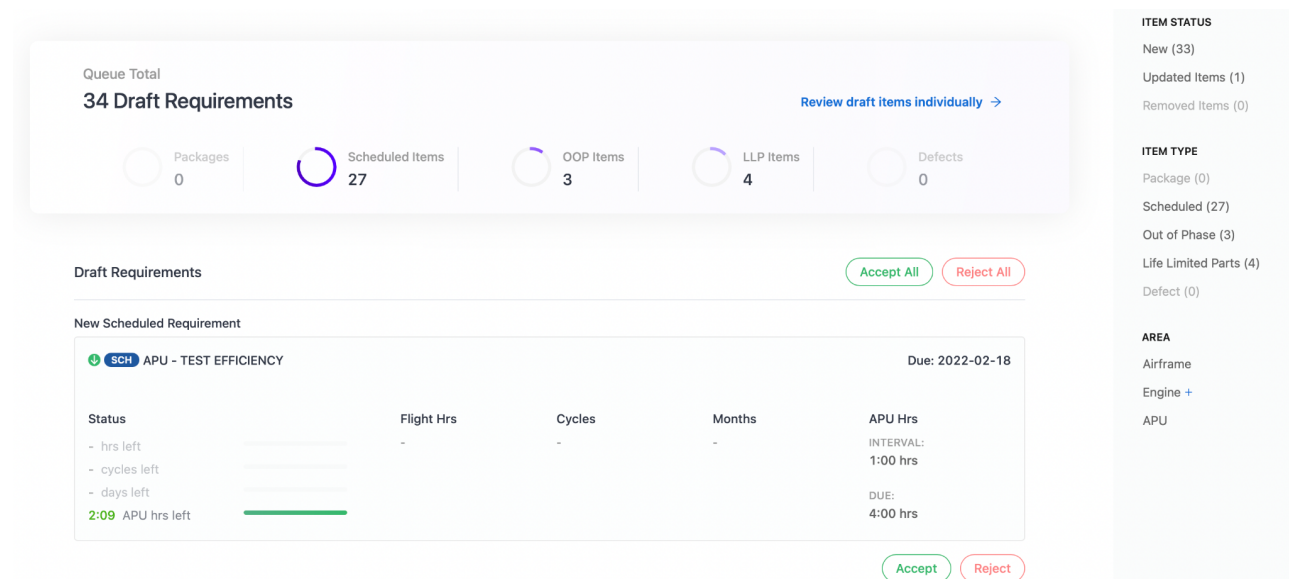
To prevent tasks loading into the Tech Log from CAMP that could render the aircraft unserviceable when it's not desired, the Tech Log Web Application has a feature where new and updated Maintenance Items from CAMP are imported as **Draft** items that do not impact aircraft serviceability, or show in the Maintenance List, until they are approved. To enable or disable this feature, please see **TL-UGD-CMP-001**.

If the feature is enabled, new Maintenance Items will not automatically show in the Maintenance List, instead, you will see a banner such as this when viewing the list. Note that Defects do not follow this flow, they will always automatically be imported from CAMP.



Selecting **Start Reviewing** will launch the workflow to review the imported items. New and Updated items are included in this flow.

New Items



By default, you are presented with a list of all imported items, split into pages each having up to 15 items. From here, you can review each item and either use the **Accept All** or **Reject All** button to accept or reject all items, or **Accept** or **Reject** each item in turn. To reduce the amount of information on the screen, you can also view one item at a time by selecting **Review draft items individually**, or filter to specific item types using the filter options on the right.

Any option that Accepts the item (i.e. using Accept All, or Accept) will cause the item to change from **Draft** status to either **Open** or **Overdue**, depending on whether its limits have been exceeded. An option that Rejects the item, will remove it from the view and make it ineligible for import again. Should a mistake be made at this point and you wish to re-import an item, please [Contact Support](#).

Updated Items

A previously Accepted item where the limits have been changed will show as an **Updated Item** for approval. The limits before the change will show on the left in red, and the new limits that would apply if the change is Accepted will show on the right in green. The changes to the remaining values for each limit are shown in the **Overview** section below the changes.

Update to existing Scheduled Requirement

	SCH APU - TEST EFFICIENCY	SCH APU - TEST EFFICIENCY
Flight Hrs	-	-
Cycles	-	-
Months	-	-
APU Hrs	INTERVAL: 22:00 hrs DUE: 130:00	INTERVAL: 22:00 hrs DUE: 140:00 hrs
Overview	- hrs left - cycles left - days left 128:09 APU hrs left	- hrs left - cycles left - days left 138:09 APU hrs left
Estimated Due	DUE: N/A	DUE: N/A

1 Changes **Accept** **Reject**

As before, selecting **Accept** will apply the updated limits to the existing item, while selecting **Reject** will discard the change and keep only the existing limits.

Removed Items

Due to limitations imposed on the integration by CAMP, no information is provided to Tech Log on why an item is removed from the Due List, only that it is no longer present. In these cases, as we are unable to determine if the item was completed, removed as not applicable, or adjusted to fall outside of the window of time that we are looking within, any items that no longer appear in the due list we receive from CAMP are automatically removed from Tech Log. These do not require approval and will simply cease to show in the Maintenance List. These only apply to items marked with a source of CAMP in the Maintenance List; all other items will remain.

Maintenance Items Processing

Regardless of whether you use the Review/Approval Flow detailed above, or have items automatically approved when they are imported from CAMP, the same processing is applied and is detailed here.

Matching CAMP Items

Due to the way that CAMP provides Due List items to Tech Log, there are some limitations to the importing of items. Specifically, items returned from the CAMP Due List are matched to existing items within the Tech Log Maintenance List, providing that the following applies:

- The existing item has a source of CAMP
- The existing item and Due List item have the same Task Number
- The existing item and Due List item have the same Description
- The existing item and Due List item's limits are within 5 days, cycles, and hours of each other (where limits exist).

Note that these matches take place regardless of the existing item's current status within Tech Log:

- If the item has been resolved previously within Tech Log, then the same item (determined by task number, description, and limits) appearing from CAMP will not create a new iteration in Tech Log or alter any other details on the resolved task. For the same task number and description to create a new item in Tech Log, different limits would be required as is expected if a repeat of the same task is scheduled within CAMP.
- If the task has been previously Rejected by the Review/Approval Flow, it will be ignored.
- If the task has been deleted in Tech Log, but not Rejected by the Review/Approval Flow, it will be created as a new task when it is seen again in the CAMP Due List (as a Draft if using the Review/Approval Flow). If you do not wish it to appear, it would need to be rejected or removed from CAMP.

If all of the above match, we are confident that we are seeing a task from CAMP that we have already imported. Any updates are then applied to the task, either as draft (if using the Review/Approval Flow) or automatically (if not).

If the above does not match, then the item seen in the Due List is treated as a new Maintenance Item and created within Tech Log (as Draft if the Review/Approval Flow is being used).

Task Types

CAMP Task Types are imported as part of this process, and mapped to Tech Log task types as follows:

Maintenance Items

- **AD** (Airworthiness Directive) → **Out of Phase**
- **ADP** (Airworthiness Directive Package) → **Out of Phase**
- **PKGOP**: (Package) → **Scheduled**

- **PN** (Part Number) → **Life Limited Part**
- **SB** (Service Bulletin) → **Out of Phase**
- **SBP**: (Service Bulletin Package) → **Out of Phase**
- **SMC** (Scheduled Maintenance Check) → **Scheduled**
- **WATCHLIST\DEFERRED*** → **Out of Phase**

* Note that it is possible to have a task (not Discrepancy) within CAMP that is flagged as **WATCHLIST\DEFERRED**. These will be imported as Out of Phase items into Tech Log. A Watchlist Discrepancy would be imported as a **Defect** as expected.

Profile Types

Each CAMP Profile Type will be correctly linked to the corresponding system on the aircraft within Tech Log, including the correct position number:

- **Aircraft** → **Airframe**
- **Engine**
- **Propellor** → **Prop**
- **APU**

Estimated Date Due

Tech Log does not re-estimate the due date for items from CAMP. At their request, items that are scheduled in CAMP will show the same estimated date in CAMP and Tech Log, with CAMP being the originating source. It is therefore important to keep the Aircraft Totals up to date in CAMP, either manually or automatically using the integration. Changes to only the estimated due date do not require approval through the Review/Approval Flow, and are automatically accepted.

Limits

Limits against a task from within CAMP are translated on import to match the Tech Log Maintenance Item limits. Limits can be against:

- **Cycles** (Airframe / Engine / APU)
- **Date**
- **Hours** (Flight / Engine / APU)

Intervals and Re-Forecasting

While we can import the interval for each of these limits, we do not re-forecast any item from CAMP that is subsequently signed off using Tech Log. For CAMP originated Maintenance Items, CAMP must be the source of all re-forecasting, so timely reporting of the state of tasks to/within CAMP is important.

Tolerances

Where available, the maximum allowable tolerances for each limit are also imported from CAMP, allowing you to apply the tolerance using the Tech Log Web Dashboard should you wish.

Note: There is a limitation on tolerances imported from CAMP that Tech Log does not support tolerances that apply to the "end of the next calendar month", only tolerances that are measured in calendar months from the original due date, or in cases of less than 28 days of tolerance, calendar days from the original due date.

Resolving Imported Maintenance Items

Once a Maintenance Item has been imported from CAMP, it can be included in a Workpack within Tech Log (or a Workpack imported from CAMP). From this point, it can be resolved within the Tech Log Application or Web Dashboard as normal.

Unfortunately there is no mechanism for Tech Log to report back to CAMP that a Maintenance Item has been resolved and automatically set the RTS flag within CAMP for that item. Instead, the RTS flag must be manually set by the Operator, CAMO, or CAMP Analyst. This is not a problem for Tech Log, as an item that has been resolved within Tech Log will remain resolved and will not be re-imported from CAMP unless the limits are updated (e.g. the item is repeated), but can be frustrating for CAMP users who do not see the current status of the task reflected back in CAMP. This is something beyond our control, unfortunately.

Defect Processing

Unresolved defects are automatically imported, regardless of whether the Review/Approval Flow is used for Maintenance Items. Any defect raised in CAMP will show against the Tech Log when the next synchronisation takes place.

Note that it is important to keep CAMP's Defect (Discrepancy) list up to date, as an overdue defect in CAMP will render the aircraft unserviceable in Tech Log.

Defect Matching

Defects between Tech Log and CAMP are imported based solely on their **Discrepancy Number** within CAMP. It is therefore imperative that this is a unique reference for any given aircraft. Should 2 defects exist with the same number, Tech Log will be unable to match the defect correctly.

Note that a defect that was created in Tech Log, will not receive updates based on changes in CAMP. We strongly recommend using Tech Log as the source of truth for raising and managing Defects, and allowing Defects to be raised in CAMP only when circumstances dictate.

Defect Category

Tech Log will automatically import all Defect types from CAMP and map them to internal Defects for tracking against the aircraft in the Tech Log Application and Web Dashboard.

- **MEL** Defects from CAMP will be raised as a Defect deferred against an MEL Item.
- **ND** (Not Deferred) Defects will be raised as Defect with no action taken (i.e. AOG).
- **D** (Deferred\Watchlist) Defects will be raised as a Defect deferred against then NEF with a category of ADVISORYONLY (i.e. does not expire).

Defect Type

CAMP additionally has a Type property stored against Defects. This property is ignored for **Deferred\Watchlist** Defects. For **Not Deferred** Defects, it is ignored unless set to **Advisory**, in which case the defect will not be tracked against its limits (i.e. it is treated as **Deferred\Watchlist**).

Imported Attributes

Defects imported from CAMP can bring along these attributes:

- Date Raised
- Date Due
- APU Hours Due, Cycles Due, Calendar Time Due (for category A deferred defects)
- Rectification Category (for MEL Defects)
- ATA Chapter and Section (for MEL Defects)
- MEL Item (for MEL Defects where a matching MEL Item exists in Tech Log)
- Details
- Title (brought in as the first 35 characters of the Description field)

Notes:

- For MEL Category A defects: Flight Hours, Flights Count, and Flight Day limits are not imported. These should be set within Tech Log after the defect has been imported.
- Tech Log does not support CAMP's MEL Category N (N/A) items. These should be raised as Deferred within CAMP, but not against the MEL. A Defect that has been raised as Category N must have a due date set before it can show up in Tech Log, and then it will come through as ADVISORYONLY.
- If a Defect in CAMP does not have a Date Raised, it will be set within Tech Log to be the date it first entered our system and automatically fall Overdue. Please ensure that the Date Raised is set correctly within CAMP for all defects.

Resolving an Imported Defect in Tech Log

A defect imported from CAMP, or one that is raised in Tech Log and pushed to CAMP, that is subsequently rectified within Tech Log will pass this rectification on to CAMP providing that **Pushing Defects to CAMP** is enabled for the aircraft. This will not include part replacement details, but the defect in CAMP will be marked as “Complied With” and any action text entered as the resolution details will be stored against the record within CAMP.

Resolving an Imported Defect in CAMP

A defect that is marked as “Complied With” within CAMP will remain in its previous status within Tech Log. The Tech Log system requires an explicit user action and associated signature (and CRS statement, where applicable) in order for a defect to be closed. This requirement ensures that Tech Log is able to produce document exports (e.g. SRPs) that contain the information required to close a defect. It is therefore not possible to use a resolution provided by a third party system to mark a defect as resolved.

Additionally, if a defect is raised in CAMP and resolved before it is imported into Tech Log, to prevent the aircraft from going unserviceable incorrectly, the defect will simply be ignored by Tech Log. Defects should therefore always be resolved off within Tech Log in the first instance, and this resolution can be pushed to CAMP.

Revision History

Revision no.	Revision date	Changes
1.0	6th June 2022	Initial Issue
1.1	21st July 2022	Minor formatting corrections
1.2	2nd Aug 2022	Clarified handling of resolved defects; Some MEL Category A limitations are now imported automatically.