

# IFS Aviation Maintenance



## Complex Assembly Maintenance Repair and Overhaul Management in IFS Cloud

CAMO Module



Document Revision: 8.3-SP13-1

Publication Date: November 25, 2025

# Contents

- 1 Introduction to asset transfer and component management in CAMO and CAMRO.....3**
- 2 Glossary of Terms for CAMRO in ICAM..... 4**
- 3 End to end workflow..... 5**
- 4 CAMO baseline modelling.....6**
  - 4.1Part Groups..... 8
- 5 CAMRO Basic Data setup..... 12**
- 6 Transfer Template Structure to Manufacturing..... 15**
- 7 Reference Data..... 18**

## Introduction to asset transfer and component management in CAMO and CAMRO

The IFS Cloud Aviation Maintenance solution integrates to the Continuing Airworthiness Management Organization (CAMO) module and the Fleet and Asset Management (FAM) module to manage asset transfer between the solutions.

This section provides guidance on the management of assets and their components using the CAMO and CAMRO modules in IFS Cloud 25R2. It outlines the key processes, configuration structures, and considerations necessary to ensure accurate tracking of component usage, maintenance compliance, and life limits throughout the asset lifecycle.

This is useful for CAMO planners, shop planners, maintenance personnel, and technical records staff responsible for asset management, compliance tracking, and maintenance planning within the CAMO and CAMRO environment.

The purpose of this guide is to:

- Explain how assemblies, configuration slots, and part groups are modeled in CAMO and CAMRO.
- Describe the processes for transferring assets between CAMO and CAMRO while maintaining accurate component and usage data.
- Provide guidance on task creation, execution, and compliance tracking across both modules.
- Detail how component life limits, including dynamically changing life limits, are managed to ensure safe and compliant operation.

This guide applies to:

- Aircraft, engines, APUs, and other sub-assemblies that are tracked in CAMO and CAMRO.
- Components requiring life limit tracking (hard-time components) and tasks for compliance reporting.
- Asset transfer scenarios where usage data, part configuration, and discard requirements must be accurately maintained between CAMO and CAMRO.

# 2

## Glossary of Terms for CAMRO in ICAM

CAMRO: Complex Assembly Maintenance, Repair & Overhaul

CAMO: Continuing Airworthiness Maintenance Organization. The CAMO Module in IFS Cloud was formerly branded as IFS Maintenix ICAM:

IFS Cloud for Aviation Maintenance FAM: Fleet and Asset Management. Product area within IFS Cloud which manages assets for the CAMRO solution. Formerly branded as VIM (Vehicle Information Management)

LRU: Line Replaceable Unit. Components which can be removed from an asset outside of a shop setting

SRU: Shop Replaceable Unit: Components which can only be removed and serviced in a shop

AD: Airworthiness Directive

SB: Service Bulletin

HT: Hard-time

EMM: Engine Maintenance Manual

CMM: Component Maintenance Manual

VSB: Vendor Service Bulletin

# 3

## End to end workflow

This section describes the deviation from the standard CAMRO flow for ICAM in 25R2.

When the asset is removed from the aircraft, a Work Package (WP) is automatically created. The task or fault driving the removal is automatically assigned to the work scope. The CAMO planner must navigate to the old Maintenix UI to view the assigned tasks and add additional tasks and/or faults to the work scope.

To initiate the transfer of the asset, the Export Asset button on the Inventory Details page of the removed asset generates a CSV export of the known configuration.

Using the Asset Import page, the user can then import the asset into CAMRO (FAM). Before importing, the configuration may be supplemented with any additional information available to the shop.

The shop planner must navigate to the Work Package (WP) in CAMO (old UI) to view the tasks assigned by the CAMO planner. Based on this, they will determine the work scope for the CAMRO shop visit by applying maintenance levels, modification standards, and including additional modifications and LLPs (the latter is optional).

The standard CAMRO process applies to the shop visit, where operations containing work instructions, labor requirements, and material demands are added to shop orders according to the stages of the visit (disassembly, disposition, repair, assembly).

The standard CAMRO process applies to the shop visit, where operations containing work instructions, labor requirements, and material demands are added to shop orders according to the stages of the visit (disassembly, disposition, repair, assembly).

## 4

## CAMO baseline modelling

**Assemblies**

An assembly represents a self-contained type of asset that performs a particular function. The CAMO module supports different assembly types, such as aircraft, engines, and APUs, which are modeled after assets. Assemblies can also be modeled as a collection of unrelated parts used for a common purpose, such as common hardware or tools.

In 25R2, the assembly types supported for asset transfer between the CAMRO and CAMO modules are any that are modeled against a given asset type, except for aircraft. Logical or administrative assemblies are not applicable to the asset transfer solution and cannot be transferred.

Assembly Class	Description	Supported in Asset Transfer
ACFT	Aircraft	No
APU	Auxiliary Power Unit	Yes
ENG	Engine	Yes
COMHW	Common Aircraft Hardware	No
TSE	Tools and Service Equipment	No
ADMIN	Administrative Assembly	No

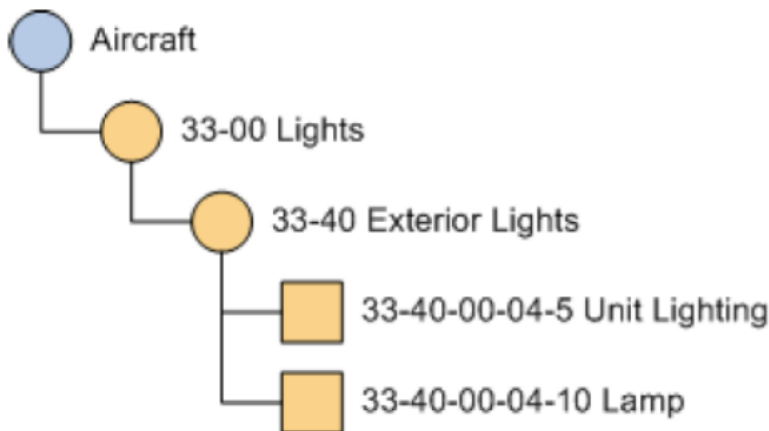
In the CAMRO model, template structures are used to represent assemblies but do not support the same level of flexibility as the mixed-model approach. When both the CAMO and CAMRO modules are used in the same solution, both assemblies and template structures are required to represent the asset in each module.

The CAMO module allows mixed-model assemblies to be defined for assets. For example, for the CFM56-7B engine, there may be several variations that need to be tracked in the solution. Each variation has its own unique part number, which is assigned to the part group in the highest-level configuration slot of the assembly.

This mixed-model capability, however, is not possible with template structures. Instead, a separate template structure must be defined for each top-level part number of the assembly, even if only a single assembly exists in the CAMRO module.

### Configuration Slots

An assembly is comprised of configuration (config) slots, which are used to model the overall configuration structure. Config slots define parent–child relationships between components within an assembly and store several critical elements of the assembly structure, such as allowable configurations, usage parameters, task definitions, and more.



There are different classes of configuration slots, which determine what types of parts can be installed and what capabilities within the CAMO module are available to inventory based on these slots.

Config Slot Class	Description	Supported in CAMRO
<b>ROOT</b>	Top level part of the assembly	Yes
<b>SYS</b>	Logical slot which does not represent a physical component on the assembly	No
<b>SUBASSY</b>	Config slot where the top part (root) of a different assembly can be installed on this one.	No
<b>TRK</b>	Tracked slot used for high-value components that must be maintained and tracked for compliance	Yes

For assemblies that will utilize the CAMRO solution, it is generally recommended to track LRU components and life-limited components in CAMO. Lower-level SRU components, which are primarily removed, updated, or repaired at the engine shop, can be omitted from the configuration slot structure in CAMO and defined only in the CAMRO template structure.

In addition, parts that require compliance tracking and reporting at the asset level must be tracked in CAMO. These are generally parts with tasks that run against them (e.g., H/T components, ADs, SBs).

## 4.1 Part Groups

Part Groups are automatically created along with config slots. Part numbers can then be assigned to the Part Group, which represents the part numbers allowed to be installed in that configuration slot of the assembly.

The Part Group code is a key field used in the asset transfer logic to recognize common parts defined between the CAMO assembly and the CAMRO template structure.

Additional Part Groups can be manually added to existing configuration slots, but only for non-tracked inventory classes such as SER, BATCH, and KIT, which are not supported in asset transfer between the CAMO and CAMRO modules.

### Positions

TRK and SUBASSY configuration slots can have multiple positions, with each position representing a physical component that can be installed in the configuration slot. For example, an aircraft with two engines would have a single SUBASSY config slot defined on the assembly with two positions, one for each engine.

Position codes are key fields used in the asset transfer between the CAMO and CAMRO modules. Additionally, due to field length differences between the two modules, the full allowable length of position codes in CAMO should not be used when naming a new position.

To prevent potential issues with field lengths, it is recommended that position names not exceed 68 characters. This limitation should be applied to all TRK config slots on asset assemblies.

### Part Numbers

Part Numbers represent all physical items on which technicians perform maintenance, as well as all items used during maintenance activities.

Field	Description	Note
<b>OEM Part Number</b>	Standard part number	See below note on field length
<b>Inventory Class</b>	Defines functional class of the part. Allowable values: ACFT, ASSY, TRK, SER, BATCH, KIT	Only TRK and ASSY (top part) parts are supported in CAMRO asset transfer
<b>Repairable</b>	Denotes whether this part can be repaired	Should be checked for any parts transferred to CAMRO

**Note** The Part No OEM field in CAMO currently allows up to 40 characters; however, the equivalent field in IFS Cloud in 25R2 allows only 25 characters. In this release, any parts defined in CAMO that will be used by CAMRO should have Part Numbers of 25 characters or fewer. Future releases plan to extend the field length in IFS Cloud to remove this restriction.

## Usage Parameters

In 25R2, only CYCLES and HOURS usage parameters are supported in the asset transfer process between CAMO and CAMRO. Additional usage parameters can be defined on assemblies but will not be included in the CSV export file transferred to CAMRO.

If additional usage parameters are required in CAMRO to initialize maintenance events for a visit, the current parameter values must be adjusted manually, using the asset's usage in CAMO as the source.

## Usage Mapping

CAMO	FAM
Time Since Overhaul / Cycles Since Overhaul	Value after Overhaul
Time Since Installation /Cycles Since Installation	Value after Repair
Time Since New / Cycles Since New	Value Total

## Task Definitions

Task execution is not performed within CAMO for CAMRO visits. Therefore, it is recommended to define CAMO requirements as executable requirements that do not require job cards.

Only tasks that require compliance tracking at the CAMO level such as aircraft maintenance program tasks for H/T components, ADs, SBs, and LLPs should be created in CAMO. Their sole purpose is to track and report compliance; they do not need to contain actual work instructions. Work instructions, based on the EMM, CMM, SBs, VSBs, or other approved sources, exist only at the CAMRO level.

Tasks defined in CAMO that were effectively completed by work performed at the engine shop while the asset was transferred to CAMRO should be manually completed within CAMO using technical records functions such as Package and Complete Task or Batch Complete Tasks once the asset has been transferred back to CAMO.

Where appropriate, task definition codes can be aligned with matching modification codes in CAMRO; however, there is no requirement to maintain equivalent task definition codes between the two modules.

Upon receiving inspection at the aircraft inspection facility, outstanding tasks in CAMO that were accomplished during the CAMRO visit should be completed as part of the inspection process. These tasks should be completed using technical records functions such as Complete Task, Package and Complete Task(s), or Batch Complete Tasks, which allow tasks to be completed using a provided completion date without requiring execution information to be signed off in a work capture.

### **Stress Ratings and Life Limits**

Life limits must be managed in CAMO. Component life limits are modeled as discard requirements, that is, requirements with a task class of DISCARD. The life limit itself is recorded as the discard requirement's scheduling threshold. By modeling life limits as requirements, the system ensures that hard-time discard tasks are visible to all users, usage is properly tracked and accounted for, and the necessary procedures are triggered when a component's life limit is reached, such as component removal and scrapping.

While life limits on components are normally static, some components have life limits that change dynamically depending on how they are used. An example can be found in engines. Some engines can be configured to run at different thrust ratings. For instance, the CFM56 engine can be set to run at 24k lbs of thrust (for installation on a B737-700) or 27k lbs of thrust (for installation on a B737-800). In addition, certain modifications; sometimes known as tech insertions may alter an engine's thrust and performance profile.

When an engine operates at different thrust ratings, the life limits of certain components within the engine may change. These components generally last longer when the engine runs at a lower thrust rating.

To calculate the remaining cycles for each component, the percentage of the component's life already consumed should be considered, based on the thrust ratings it has experienced. This usage history can then be used to calculate the current usage (or life) of the component, prorated to the current thrust rating. The remaining life is determined based on the current thrust rating and the accumulated usage under one or more different thrust ratings, with the life limit corresponding to the current thrust rating applied.

For example: If an engine operates at a 24k thrust rating (a lower thrust rating), every previous cycle that occurred while the engine was at 27k will count as slightly more than one cycle. So, if the asset previously flew 5,000 cycles at 27k, this would be equivalent to 7,500 cycles at the current 24k rating.

Life limits are enforced by tracking usage and creating discard requirements. To manage life limits across all thrust ratings, the following high-level steps are involved:

1. Create a separate engine part number for each thrust rating.
2. Create accumulated usage parameters for each thrust rating to track the number of cycles performed at each rating.

3. Create calculated usage parameters for each thrust rating to allow the CAMO module to calculate prorated usage for components that have operated under multiple thrust ratings.
4. Create discard requirement definitions for each tracked component identified as a prorated LLP.

Although this section uses engines as an example, the functionality applies to any sub-assembly type, such as APUs or landing gear.

Rolls-Royce DAC functionality remains on the CAMO side and updates task deadlines based on the affected component's usage.

# 5

## CAMRO Basic Data setup

### MRO Site Settings

Site-level settings determine how the CAMRO solution operates. The MRO Enabled option controls whether CAMRO functionality is available at the site and must be enabled for MRO operations. Other site options, such as automatic reporting of operations and material issues, support a simplified disposition shop order process but are optional.

### Customer Setup

CAMRO supports third-party MROs and uses customer-owned parts in workflows. Each customer represents the entity for which MRO services are provided and must be modeled in IFS Cloud. This also applies to CAMOs performing in-house MRO.

### FAM Serial Part Information

Engineering parts with the After Delivery Serial Tracking option set to Serial Tracked are copied to FAM. Serial parts in FAM require specific information to ensure proper tracking and usage management. The following must be defined for each serial part:

**Life Limited:** Whether the part is Life Limited or Not Life Limited.

**Operational Parameter:** Parameters used to track usage for physical items with this part number. For life-limited serials, the Life Limit Tracking option should be enabled to ensure proper stress rating handling.

**Maintenance Group:** A preferred maintenance group. Maintenance groups are used to group different types of maintenance requirements. For CAMRO, customers typically set up one maintenance group and designate it as the preferred group.

**Operational Parameters per Maintenance Group:** The maximum value allowed when recording usage for physical items should be provided. This serves as a reasonability check to help prevent incorrect or unrealistic measurement values.

For CAMO–CAMRO configuration definitions, as explained in the Usage Parameters section, two parameters are supported for Asset Import/Export functionality in 25R2. The HOURS and CYCLES parameters must be defined as follows:

- Operational Parameter 1 in the Import and Export File: The operational parameter for the serial part must have either Time Parameter or Primary Operational Parameter enabled.
- Operational Parameter 2 in the Import and Export File: The operational parameter for the serial part must have Cycle Parameter enabled.

Life-limited parts must be tracked at the CAMO level. While functionality for life-limited parts (including stress ratings) in CAMRO can still be used, it should be considered optional. This may be necessary when third-party work is performed and the shop wants to manage life-limited parts independently from CAMO. Both solutions can run in parallel (CAMO and CAMRO), allowing the shop to independently validate life-limited parts included in the work scope by CAMO.

There is no integration planned between stress ratings and life-limited parts management in CAMO and CAMRO. If the customer chooses to use the functionality in both modules, the data setup must be done independently in each module.

Solutions that utilize the CAMO-to-CAMRO asset transfer for in-house engine MRO work, while also providing independent MRO services to third parties, must define stress ratings and life limits in CAMRO exclusively for independent MRO visits.

### **Stress Ratings and Life Limit Definition**

A default stress rating must be modeled for the relevant template part. Additional stress ratings can be added to support assets being repaired under independent MRO that will not be transferred to the CAMO module. Once stress ratings are in place, life limits—either operational or calendar-based—must be defined for the LLP.

As noted in the previous section, this functionality is optional in CAMRO.

### **FAM Template Structures**

In 25R2, each CAMO assembly—such as an engine or landing gear—that will use CAMRO should be modeled as a single template. All entries for the assembly must be included within that template. In this setup, the Configured in Separate Template option must be enabled for structure entries.

To use CAMRO, the following fields must be defined for the template:

- Part Number: For each structure entry, a prime part is assigned. For a given part or structure position, it is possible to define template alternates and position alternates.
- Catalog Number: Each structure entry must have a unique catalog number. Catalog numbers can be up to 20 characters and should be assigned to allow easy identification within the position part hierarchy and mapping back to the template configuration.

The catalog number is used to generate position parts, which serve as placeholders for all valid parts that can occupy a given position in the structure. Position parts address uncertainty in

complex assemblies where the exact part may not be known in advance and ensure that MRO operations are correctly applied to the actual parts identified during shop visits.

- For CAMRO assemblies, the Allow Non-Unique Catalog Numbers option must be disabled, as each catalog number must be unique within the template.
- Structure Position: For CAMRO assemblies, this field must follow the format: [Part Group Code]::[Position Code] It combines the Part Group Code in CAMO, followed by two colons, and then the Position Code from CAMO. This format ensures that structure entries can be consistently tracked between systems during both import and export.
- Product and Model: A product and model must be defined for the topmost entry of the asset to enable template transfer. The product number typically identifies the product family (for example, CF34 Engine), while the model number specifies a particular variant within that family (for example, CF34-10E).

The template structure must be activated once all required entries, including alternate parts, have been modeled.

# 6

## Transfer Template Structure to Manufacturing

When a template is transferred to a CAMRO-enabled site, a position part is generated for each structure entry. Position parts form the foundation for manufacturing structures and workflows in CAMRO operations.

### About this task

The template transfer process occurs in two stages:

### Steps

#### 1. Stage 1 - Generate Position Part Structure

For each template structure entry, a position part is generated using:

- The transfer prefix provided by the customer.
- The delimiter value defined in the object property POSITION\_PART\_DLIMTR (e.g., "/").
- The catalog number of the structure entry.

Example: 10E/76-11-01-01-1 The maximum character limit for a Position Part Number is 25 characters.

#### 2. Stage 2 – Generate Manufacturing Structures

A part transfer template determines the settings for inventory and manufacturing parts created during this stage.

- Position parts are used to create product structures of type Disassembly, Disposition, and Assembly.
- Real part numbers are used for product structures of type Repair.
- Each structure includes associated routings, which contain operations.
- Operations include executable work instructions based on approved data sources (e.g., EMM, CMM).
- Product structures also define material demands

The configuration of a template structure can evolve over time. For example, structure positions may be added due to an embodied modification or an internal requirement. New structure positions can be automatically transferred to Manufacturing for all valid sites by setting the object property `AUTO_TRANSFER_STR` to `TRUE`. Similarly, alternates introduced over time can be automatically transferred by setting the `AUTO_TRANS_ALTERNATE` property to `TRUE`.

### **Example**

#### **Manufacturing Basic Data**

Basic data must be modeled in IFS Cloud (Path: MRO and Fleet Operations > Repair Setup > Repair Setup Basic Data).

This includes:

- Disposition codes required for the customer
- Maintenance levels for parts
- Other relevant basic data

In addition, maintenance level structures and maintenance level routings must be modeled. Repair code structures and repair code routings are also required to perform repairs on the shop floor.

#### **Asset Induction via Import Asset**

In 25R2, asset data can be uploaded via CSV files into IFS Cloud and transformed into FAM serial structures using the Import Asset functionality.

A standard template, `VimSerialLoaderFileTemplate` (leveraging the External Files toolkit), defines how the uploaded data is interpreted, including value separators, date formats, and field limits.

The system validates the uploaded data to identify errors and warnings where possible. However, some issues may only be detected when the serial structure is created or updated.

Once validated, the serial structure is created or updated in FAM. For new assets, the serial structure is created in Planned for Operation status. In CAMRO workflows, assets are typically set to Out of Operation during induction to support MRO processes.

#### **Reset Value after Overhaul and Value after Repair**

The Value after Overhaul and Value after Repair can be reset during shop visit completion, based on the condition codes of the parts. Only parts with the appropriate condition codes are considered for the reset.

#### **Return Object**

When the shop visit is completed, the object is returned to the customer. At this stage, the asset is moved from Inventory to In Facility (Current Status), and its Operational Condition is updated to either Operational or Non-Operational.

**Export Asset**

In 25R2, once MRO operations are complete and the asset is reassembled, a CSV file can be generated and downloaded. This file includes installed parts and serials, structure hierarchy, and the latest operational usage values at the time of generation.

## 7

## Reference Data

**Attribute Mapping**

The table below lists the required attributes for creating serials and their structures in FAM, along with the corresponding attributes in CAMO.

*Attribute Mapping*

FAM Attributes	Format	CAMO Equivalent	Format	Notes
Template Part Number	VARCHAR2(25)	Assembly Code	VARCHAR2(8)	Template part number is a mandatory attribute for import. This is required to identify the topmost level of the asset being imported.

FAM Attributes	Format	CAMO Equivalent	Format	Notes
Template Part Revision	VARCHAR2(6)	N/A		CAMO does not use part revisions. If this value is not included in the list, when uploading the CSV file in IFS Cloud, the "Last Revision" of the corresponding engineering part will be taken.

FAM Attributes	Format	CAMO Equivalent	Format	Notes
Structure Position	VARCHAR2(20)	Part Group Code	VARCHAR2(50)	<p>Structure Position is a mandatory attribute. For single templates, which is the setup CAMO will start with in 25R2, the "Structure Position" must be unique. In CAMO, however, it's the combination of the part group code and position code that makes the entry unique. <u>To align with template configuration rules:</u></p> <ul style="list-style-type: none"> <li>- The part group code and position code will be concatenated in the asset file sent by Maintenix.</li> <li>- The template structure in Cloud will be set up with these same concatenated values in the "Structure Position" field.</li> </ul>

FAM Attributes	Format	CAMO Equivalent	Format	Notes
Parent Part Number	VARCHAR2(25)			<p>There are differences between the systems. In CAMO, it is possible to identify where an inventory part should be located without needing the parent information. In Cloud, however, parent information is required to build and validate the serial structure. The following design decision has been applied: - For single templates, it will be possible to import without having the "Parent Part Number" and "Parent Serial Number" attributes in the asset file, since the unique structure positions can be used to build the structure. When template-in-template setup is used to build the template, the "Parent Part Number" and</p>

FAM Attributes	Format	CAMO Equivalent	Format	Notes
Parent Serial Number	VARCHAR2(50)			See note for "Parent Part Number"
Part Number	VARCHAR2(25)	Part Number	VARCHAR2(40)	It will be possible to load a file without the part number.
Serial Number	VARCHAR2(50)	Serial Number	VARCHAR2(40)	Serial number is a mandatory attribute for serialized parts. It will be possible to load a file without the part number. However, when Validate Asset is performed, this will trigger errors and warnings.
Part Revision	VARCHAR2(6)	N/A	N/A	CAMO does not use part revisions. If this value is not included in the list, when uploading the CSV file in IFS Clous, the "Last Revision" of the corresponding engineering part will be taken.

FAM Attributes	Format	CAMO Equivalent	Format	Notes
Vehicle ID	VARCHAR2(25)	N/A	N/A	N/A for CAMO. Required for vehicle parts where a "Vehicle ID" is mandatory.
Part Ownership		Ownership Type		In CAMO, "Owner" is equivalent to "Customer Owned" in IFS Cloud.
Owner	VARCHAR2(20)	Owner Code	VARCHAR2(16)	Mandatory if part ownership = Customer Owned or Supplier Loaned. It will be possible to load a file without the part owner. However, when Validate Asset is performed, this will trigger errors.
Manufacturer	VARCHAR2(20)	Manufacturer Code	VARCHAR2(16)	If this value is not included in the list, the preferred manufacturer for the engineering part revision or the preferred manufacturer for the master part will be used for new serials.

FAM Attributes	Format	CAMO Equivalent	Format	Notes
Manufacturer's Part Number	VARCHAR2(80)	Part Number	VARCHAR2(40)	If this value is not included in the list, the preferred manufacturer part number for the engineering part revision or the preferred manufacturer part number for the master part will be used for new serials.
Manufactured Date	Date	Manufactured Date	Date	Mandatory for LLP serials.
Structure Change Date (i.e., date provided by the user when the structure is first set in out of operation from the planning phase)	Date	Installed Date	Date	The structure change date of the top-most serial will be used: - As the default structure change date when setting the structure In or Out of Operation for the first time. - The date on which operational loggings are to be generated with the usage values provided in the import file.

FAM Attributes	Format	CAMO Equivalent	Format	Notes
Stress Rating Template Part Number	VARCHAR2(25)			Mandatory for LLP serials. If this value is not included in the list, the stress rating template part number for the nearest parent will be used. Note: A default stress rating must have been defined in Cloud.
Stress Rating Template Part Revision	VARCHAR2(6)			Mandatory for LLP serials. If this value is not included in the list, the stress rating template part revision of the nearest parent will be used. Note: A default stress rating must have been defined in Cloud.
Stress Rating ID				Mandatory for LLP serials. If this value is not included in the list, the default stress rating ID for the nearest parent will be used.

FAM Attributes	Format	CAMO Equivalent	Format	Notes
Operational Parameter 1	VARCHAR2(30)	Usage Parameter Code	VARCHAR2(80)	Two operational parameters will be supported for asset import/export to record usage values. In this release, it's HOURS (USAGE) and CYCLE. In FAM, this means the value provided in "Operational Parameter 1" must be defined as "Time Parameter" or "Primary Operational Parameter".
Value after Overhaul 1	Number	TSO	float	It is decided to map "TSO" to "Value after Overhaul".
Value after Repair 1	Number	TSI	float	It is decided to map "TSI" to "Value after Repair".
Value Total 1	Number	TSN	float	It is decided to map "TSN" to "Value Total".

FAM Attributes	Format	CAMO Equivalent	Format	Notes
Operational Parameter 2	VARCHAR2(30)	Usage Parameter Code	VARCHAR2(80)	The value provided in "Operational Parameter 2" must be defined as a "Cycle Parameter".
Value after Overhaul 2	Number	TSO	float	It is decided to map "CSO" to "Value after Overhaul".
Value after Repair 2	Number	TSI	Float	It is decided to map "CSI" to "Value after Repair".
Value Total 2	Number	TSN	Float	It is decided to map "CSN" to "Value Total".
Maintenance Program ID		N/A	N/A	N/A for CAMO
Maintenance Program Revision		N/A	N/A	N/A for CAMO
Workshop Code				In basic data, it is possible to define a preferred workshop code. This will be used when creating the serials for the imported data.

## ABOUT IFS

IFS develops and delivers enterprise software for customers around the world who manufacture and distribute goods, maintain assets, and manage service-focused operations. The industry expertise of our people and solutions, together with commitment to our customers, has made us a recognized leader and the most recommended supplier in our sector. Our team of 3,500 employees supports more than 10,000 customers world-wide from a network of local offices and through our growing ecosystem of partners.

[#forthechallengers](#)

[ifs.com](https://ifs.com)

## WHERE WE ARE

### AMERICAS

+1 888 437 4968

### ASIA PACIFIC

+65 63 33 33 00

### EUROPE EAST

+48 22 577 45 00

### EUROPE CENTRAL

+49 9131 77 340

### UK & IRELAND

+44 1494 428 900

### FRANCE, BENELUX AND IBERICA

+33 3 89 50 72 72

### MIDDLE EAST AND AFRICA

+971 4390 0888

### NORDICS

+46 13 460 4000

COPYRIGHT © 2025 INDUSTRIAL AND FINANCIAL SYSTEMS, IFS AB. IFS AND ALL IFS PRODUCTS AND SERVICES NAMES ARE TRADEMARKS OF IFS. ALL RIGHTS RESERVED. THIS DOCUMENT MAY CONTAIN STATEMENTS OF POSSIBLE FUTURE FUNCTIONALITY FOR IFS'S PRODUCTS AND TECHNOLOGY. SUCH STATEMENTS ARE FOR INFORMATION PURPOSES ONLY AND SHOULD NOT BE INTERPRETED AS ANY COMMITMENT OR REPRESENTATION. THE NAMES OF ACTUAL COMPANIES AND PRODUCTS MENTIONED HEREIN MAY BE THE TRADEMARKS OF THEIR RESPECTIVE OWNERS.