

Actuals Loader User Guide

IFS Cloud for Aviation Maintenance

Version 25R2



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Disclaimers and Privacy Notices

This guide is intended for authorized users of IFS Cloud Aviation Maintenance (ICAM) only. All data migration activities must comply with your organization's data governance and privacy policies. Unauthorized access or misuse of the Data Migration process may result in data corruption or security breaches and/or severe penalties.

1 Introduction

This document serves as a user guide for migrating and loading Aviation Maintenance and Supply Chain Actuals data into the IFS Cloud Aviation Maintenance (ICAM) solution. It details the step-by-step process for data migration, validation, and import, ensuring compliance with data governance policies.

- **Actuals Data Migration Process:** Users must log in with authorized credentials, create Actuals data migration jobs, and execute these jobs sequentially across data groups covering various aviation maintenance categories. Data is first loaded into staging tables before validation and imported into ICAM.
- **Supporting Resources and FAQs:** The document includes FAQs addressing how to create migration jobs, load CSV files onto staging tables, and validate data, supporting users through common migration tasks.

2 Pre-requisites for Actuals Data Migration

Before beginning the Actuals Data Migration process, ensure that all **reference (REF) data** and **basic configuration data** required by the CSV templates are already set up in your ICAM environment.

These foundational data elements are essential for successful validation and import, as the system cross-checks all dropdown or lookup values in the CSV files against existing reference data in ICAM.

Typical reference data includes, but is not limited to:

- **Materials:** Shipment priority, Purchase Unit of Measure, Currency, Last receive condition code and more.
- **Engineering:** Part type, Part Use, Unit of Measure, part number approval reason and more.
- **Maintenance Programs:** task class, task sub-class, task originator, labor skill, work type, Planning Type, Engineering approval reason and more.
- **Faults:** Severity, Deferral Class, Priority and more.

3 How to Migrate your Actuals Data into ICAM

- Create a Migration Job for each CSV File. Approximately 17 Migration Jobs are to be created to load the 17 CSV Actuals Data CSV files.
- Execute the Data Migration Job
- Load the relevant CSV File

- Validate the recently loaded Actuals data on the Actuals Loader page
- Edit or Delete Actuals Data Errors where applicable
- Import Validated Actuals Data into ICAM.

The 'Actuals Data Migration & Loading - Activity Diagram' (see below) illustrates the sequential process for migrating baseline data into ICAM.

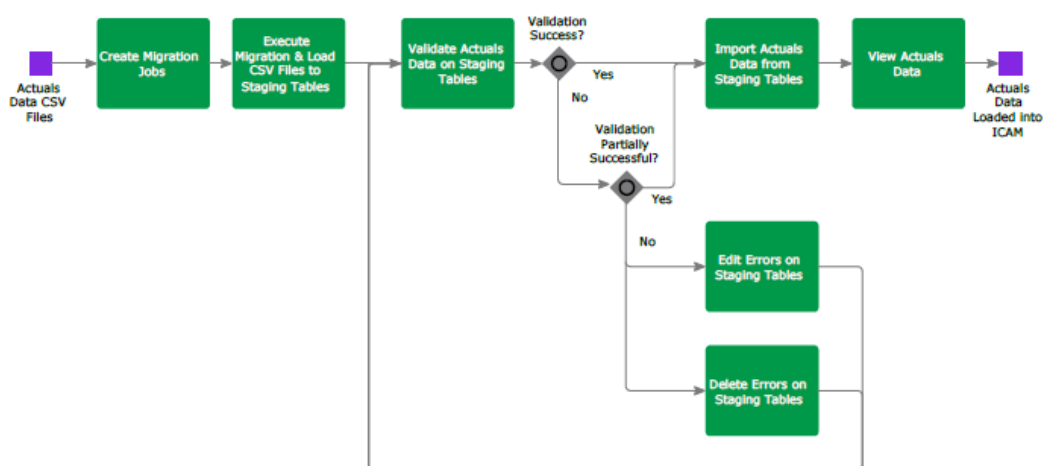


Figure 1: Actuals Data Migration & Loading – Activity Diagram

4 How to use the CSV Templates – Data Transformation

Actuals Data CSV File Templates can be found [here](#). Download the templates and populate them with your organization’s legacy data in alignment with the column headers. You may upload the updated CSV files into the ICAM staging tables through the ‘Migration Jobs’ tool on IFS Cloud

5 Create and Run a Data Migration Job

On your IFS Cloud interface, navigate to the Migration Job page and create a new migration job. Populate the data fields, save, and then execute the migration job to load your Actuals Data CSV files onto the IFS Cloud Staging Tables. Details can be found [here](#).

For instance, in the case of the C_RI_Inventory CSV, a separate migration job needs to be created specifically for loading C_RI_Inventory data. Similarly, each CSV file requires its own migration

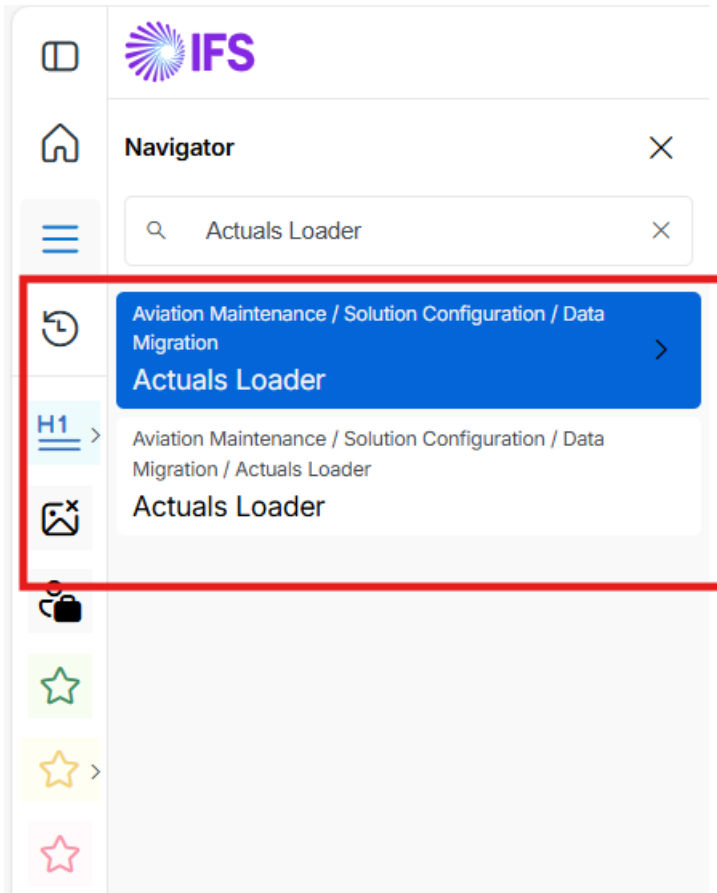
job. Therefore, since the Actuals Loader includes 17 staging tables, there will be 17 corresponding CSV files and 17 migration jobs to be created.

Learn more about creating migration jobs here [‘Data Management - Technical Documentation For IFS Cloud’](#).

6 Validate your Actuals Data

Once the migration job is successfully executed, your Actuals data will be loaded onto the IFS Cloud Staging Tables.

In the Aviation Maintenance Section, navigate to the ‘Actuals Loader’ Page to validate your recently loaded Actuals Data records.



To validate your Actuals data, select the file record and click on Validate to execute the data validation process. You may also click on 'View Background Jobs' to inspect any Validation jobs that are running in the background.

Aviation Maintenance > Solution Configuration > Data Migration > Actuals Loader > Actuals Loader

Actuals Loader

Search

Validate Import Delete View Background Jobs Subject Area

(1)	Area Code	Area Name	Area Order	Valid Data	Invalid Data	Last Validation Status	Validation
<input type="checkbox"/>	INVENTO...	Inventory	1				No
<input type="checkbox"/>	HISTUSG	Inventory Historical Usage	2				No
<input type="checkbox"/>	INVIOE	Inventory - Warranty	3				No
<input checked="" type="checkbox"/>	TASKS	Tasks	4	1	1	PARTIAL	Yes
<input type="checkbox"/>	FAULTS	Faults	5				No
<input type="checkbox"/>	PO	Purchase Orders	6				No
<input type="checkbox"/>	WRKPKG	Work Packages	7				No

Upon validation, the Actuals Loader tool will provide the status of the validated records as illustrated below. Successfully validated data will display a 'success' badge, while erroneous data will display an 'Error' badge. In the case of missing data, the Actuals Loader tool will display a status badge of 'No Data'.

Area Code	Area Name	Area Order	Valid Data	Invalid Data	Last Validation Status	Validation
INVENTO...	Inventory	1	0	0	NO DATA	Yes
HISTUSG	Inventory Historical Usage	2	0	1	ERROR	Yes
INVIOE	Inventory - Warranty	3	1	0	SUCCESS	Yes

Error Information is displayed on the subject area page of each record.

You may edit or delete any data validation errors to import your validated Actuals data onto your ICAM Solution.

Aviation Maintenance > Solution Configuration > Data Migration > Actuals Loader > Tasks > Task Deadlines

Task Deadlines (C_RI_TASK_SCHED)

Search

Serial No Oem Part No Oem Manufact Cd More Favorites Search Clear </> Advanced Saved Searches

Actuals Loader

(1)	Terminated Value	Error Level	Result Cd Description	Error Location
<input checked="" type="checkbox"/>		CRITICAL	Schedule Parameter must be provided (Task: 737-NG OIL U...)	SCHED_PARAMETER

These columns are populated when the tables have been validated by the user. Descriptions of the error codes which appear in these columns are provided in Appendix - Error Codes.

7 Import your Actuals Data into your ICAM Solution

Once the recently loaded Actuals data files have been validated, you may begin importing the valid Actuals data files into your ICAM Solution by selecting the successfully validated data record and clicking on 'Import'.

Only validated data can be imported. The Import function is not available when the Actuals Data contains invalid records. However, the system supports partial imports. In such cases, if the dataset includes both valid and invalid records, the Actuals Loader will proceed to import the valid records, while the invalid records will remain in the staging area for review and correction

Actuals Loader

Q Search

Validate Import Delete View Background Jobs Subject Area

(1)	Area Code	Area Name	Area Order	Valid Data	Invalid Data	Last Validation Status	Validation
<input type="checkbox"/>	INVENTO...	Inventory	1				No
<input type="checkbox"/>	HISTUSG	Inventory Historical Usage	2				No
<input type="checkbox"/>	INVIOE	Inventory - Warranty	3				No
<input checked="" type="checkbox"/>	TASKS	Tasks	4	1	1	PARTIAL	Yes
<input type="checkbox"/>	FAULTS	Faults	5				No
<input type="checkbox"/>	PO	Purchase Orders	6				No
<input type="checkbox"/>	WRKPKG	Work Packages	7				No

You have now successfully migrated your legacy actuals data into your IFS Cloud Aviation Maintenance (ICAM) Solution.

8 About ICAM Actuals Loader Data Structure

8.1 Data Structure in the Actuals Loader

The Actuals Loader organizes data in a hierarchical model to ensure dependency rules are respected:

8.2 Subject Areas

A subject area represents a more detailed collection of Actuals data.

Example: In the Inventory, Inventory Historical Usage, Task, etc.

Subject areas ensure that related datasets are validated and imported together, reducing the chance of broken references or incomplete records.

8.3 Staging Tables

At the most detailed level are the staging tables. Records are uploaded, reviewed, validated, and corrected in the staging tables. Each subject area is made up of one or more staging tables.

Users can add, edit, or delete records directly within these tables, or bulk load data using pre-defined templates via Migration Jobs.

Validation messages are displayed at the record (row) level, so errors can be corrected precisely before re-validation.

9 Loading Inventory in Actuals Loader

After your baseline configuration data has been successfully migrated into the ICAM environment, you can begin loading your organization's **Actual Inventory Data** through the **ICAM Actuals Loader** interface.

This process imports live inventory items such as aircraft, tracked, serialized and batch-controlled items, and kits — from your legacy system into ICAM for operational use.

9.1 Inventory Classifications

The ICAM Actuals Loader supports the following classifications of inventory, aligned with aviation maintenance practices:

- **ACFT – Aircraft assembly**
Represents a complete aircraft structure or tail number record.
- **ASSY – Sub- assembly**
Represents major assemblies or subassemblies such as engines, APUs, or landing gears.
- **TRK – Tracked inventory items**
Items that are positionally tracked when installed (for example, line-replaceable units or controlled subcomponents).
- **SER – Serialized inventory items**
Items that carry a unique serial number but are not positionally tracked when installed (for example, serialized tools or consumables).
- **BATCH – Batch-controlled items**
Items controlled by batch or lot number rather than serial number (for example, lubricants or chemicals).
- **KIT – Collection of items**
Represents predefined groups of parts or consumables used to perform a specific maintenance task.

Although all inventory classifications are loaded through the same staging structure, each classification may require different attributes. For example, tracked (TRK) and serialized (SER) items require serial and part numbers, while batch items require batch identifiers and quantities.

9.2 Loading Inventory – Staging Tables

1. Select the respective migration job created for **Inventory Staging Tables** to open the file upload window.
2. Choose the appropriate CSV template corresponding to your inventory type (Aircraft, Assembly, Tracked, Serialized, Batch, or Kit).
3. Run the migration job.
4. Once complete, the records appear in the staging tables in ICAM.

9.3 Validating Inventory Records

1. Navigate to the **Inventory** subject area and click **Validate**.
2. The validation process checks for:
 - Existence of related part and manufacturer references.
 - Valid owner, operator, and location codes.
 - Correct inventory classification (ACFT, ASSY, TRK, etc.).
 - Uniqueness of serial or batch numbers.
3. Review validation results:
 - **Validated** – Data is valid and ready for import.
 - **Error** – Issues must be corrected.
4. Correct invalid records inline or re-upload an updated CSV file, then revalidate.

9.4 Importing Validated Inventory

1. Click **Import** to commit validated records to ICAM’s operational inventory tables.
2. Only validated records are imported; invalid rows remain in staging for correction.
3. Verify import success under **Inventory Management** pages.

Note: ICAM supports **partial imports** — valid records are imported even if others fail the validation.

9.5 Working with Inventory CSV Templates

All Inventory Actuals Loader templates are available [here](#). Each template corresponds to a staging dataset in ICAM.

Template File	Description
---------------	-------------

Inventory.csv	Loads aircraft, assemblies, and uninstalled inventory items.
Inventory_Sub.csv	Loads installed subcomponents or tracked parts.
Inventory_Usage.csv	Loads current usage or time/cycle values for each item.
Inventory_Capability.csv	Loads aircraft-level capability information.
Inventory_Attach.csv	Defines attachment relationships between parent and child items.

Troubleshooting

Issue	Likely Cause / Resolution
Validation fails for dependencies	Required baseline data (Part, Owner, Location) missing.
Import skipped for certain items	Only validated rows are imported; re-check validation errors.

10 Loading Historical Usage in Actuals Loader

After successfully loading inventory data into ICAM, the next step is to load **Historical Usage Data** for assemblies using the Actuals Loader.

This ensures that usage metrics such as hours, cycles, and landings accumulated prior to migration are accurately represented for maintenance forecasting and compliance.

10.1 Loading Historical Usage Using CSV Files

1. Select the respective migration job created for **Historical Usage** to open the upload window.
2. Choose the appropriate CSV template for the usage type.
3. Run the migration job.
4. Once complete, the records appear in the staging tables.

10.2 Validating Historical Usage Data

1. Select the **Historical Usage** subject area and click **Validate**.

2. Review and resolve any dependency or data integrity errors.
3. Revalidate until all data passes validation successfully.

10.3 Importing Historical Usage Data

1. Once validated, click **Import** to move the data into ICAM's operational tables.
2. Only validated records are imported; invalid rows remain in staging.

Note: Partial imports are supported — valid rows are imported even if others fail validation.

11 Loading Inventory Original Equipment in Actuals Loader

After successfully loading inventory data into ICAM, the next step is to load **Inventory Original Equipment** using the Actuals Loader.

This ensures that usage metrics such as hours, cycles, and landings accumulated prior to migration are accurately represented for maintenance forecasting and compliance.

11.1 Loading Inventory Original Equipment Using CSV Files

5. Select the respective migration job created for **Inventory Original Equipment** to open the upload window.
6. Choose the appropriate CSV template for the Equipment type.
7. Run the migration job.
8. Once complete, the records appear in the staging tables.

11.2 Validating Inventory Original Equipment Data

4. Select the **Inventory Original Equipment** subject area and click **Validate**.
5. Review and resolve any dependency or data integrity errors.
6. Revalidate until all data passes validation successfully.

11.3 Importing Inventory Original Equipment Data

3. Once validated, click **Import** to move the data into ICAM's operational tables.
4. Only validated records are imported; invalid rows remain in staging.

Note: Partial imports are supported — valid rows are imported even if others fail validation.

12 Loading Maintenance Tasks in Actuals Loader

After loading Inventory Original Equipment, the next step is to load **Maintenance Tasks and Reference Documents** using the Actuals Loader.

This process imports completed and active maintenance tasks from the legacy system, initializing maintenance history and establishing next due tasks in ICAM.

12.1 About Maintenance Tasks

The task staging structure enables historic and active tasks to be loaded into ICAM based on existing definitions such as **Requirements, Blocks, or Reference Documents**.

Tasks can be defined at:

- **Configuration Slot level** – Root, System, or Tracked Config Slot.
- **Part Number level** – Tracked or Serialized.

Tasks are imported as **Completed**, with completion dates and usage values recorded. Once imported, ICAM automatically generates the next due (Active) task based on scheduling rules.

12.2 Loading Task Data Using CSV Files

1. Select the migration job created for **Task Staging Tables**.
2. Choose the corresponding CSV template for your data type.
3. Run the migration job.
4. Once complete, the task records appear in staging.

12.3 Populating Task Staging Tables

Table Name	Purpose
C_RI_TASK	Loads maintenance tasks including Last Done tasks (Most recent completion) and Next Due Tasks (The currently scheduled next due date/value).
C_RI_TASK_SCHED	Loads usage-based information for the tasks, including hours, cycles, and scheduling references.

12.4 Validation and Importing in to the production system

Validation and import steps follow the same process as described for Inventory and Historical

Usage:

- Validate data integrity and dependencies.
- Correct errors.
- Revalidate and import validated tasks.

13 Loading Faults in Actuals Loader

After loading Inventory, Historical Usage, and Tasks, the next step is to load **Fault Data**.

This ensures that all open and deferred maintenance discrepancies from legacy systems are migrated for accurate maintenance tracking in ICAM.

13.1 About Fault Data

Faults represent discrepancies or deferred maintenance actions recorded during operations. The Actuals Loader supports:

- **Deferred Faults** – Known issues postponed for later rectification.

Each fault record contains asset reference, fault description, status, deferral category, and date raised. Upon import, ICAM creates fault event records automatically.

Note: The MEL (Minimum Equipment List) catalog with deferral references must be loaded as prerequisite reference data before loading deferred faults through the Actuals Loader.

13.2 Populating Fault Staging Tables

Table Name	Purpose
AL_OPEN_DEFERRED_FAULT	Stores details of open and deferred faults, including fault number, reference asset, and deferral data.

13.3 Validation and Importing

Validation and import procedures mirror those used for Inventory and Historical Usage:

- Validate dependencies and data completeness.
- Correct and revalidate.
- Import validated fault data into ICAM.

14 Loading Work Packages in Actuals Loader

After loading Inventory, Tasks, and Faults, you can proceed to load **Work Package Data**. Work Packages group tasks and faults into a single maintenance package for aircraft or assemblies.

Note: Aircraft work packages (CHECKs) are created at internal sites only. External checks are not supported.

14.1 About Work Packages

Work Packages represent maintenance containers that are group related tasks and faults. Each package defines:

- The applicable inventory or assembly.
- The tasks or faults included.
- Work type, status, and reference identifiers.

Loading this data ensures accurate representation of maintenance planning and execution history.

14.2 Populating Work Package Staging Tables

Table Name	Purpose
AL_WORK_PACKAGE_TASK	Links tasks and faults to their parent work package for a specific aircraft or assembly.
AL_WORK_PACKAGE_TASK_ATA	Links ATA system-level tasks and faults with work packages for hierarchical traceability.

14.3 Validation and Importing

Follows the standard validation and import flow as used in previous sections.

15 Loading Purchase Orders in Actuals Loader

The Actuals Loader also supports the import of **Purchase Order (PO) data** such as part purchases, repairs, exchanges, borrowings, and consignments, ensuring continuity in procurement and logistics traceability.

Note: Only **open** or **issued** orders are in scope for loading.

15.1 Purchase Order Types

- Purchase Orders (Part Purchases)
- Repair Orders
- Exchange Orders
- Borrow Orders
- Consignment Orders

15.2 Populating Purchase Order Staging Tables

Table Name	Purpose
C_PO_HEADER	Stores header-level details for each PO (e.g., PO number, supplier, and status).
C_PO_LINE	Stores line-level part, service, or repair details linked to the PO header.
C_PO_LINE_TAX	Stores tax details for each PO line, including tax codes and rates.
C_PO_LINE_CHARGE	Stores charge details such as freight, handling, or insurance for each PO line.

15.3 Validating and Importing Purchase Orders

1. Select the **Purchase Orders** subject area.
2. Click **Validate** to check for missing suppliers, invalid parts, or incorrect statuses/dates.

3. Once validated, import via the **Import** option in the Actuals Loader.

Only validated records are imported; invalid records remain in staging for correction.

15.4 Troubleshooting

Issue	Likely Cause / Resolution
Validation fails for supplier codes	Supplier master data missing in baseline configuration.
PO lines skipped during import	Ensure each line references an existing PO header.
Incorrect tax or charge data	Validate tax and charge codes against master tables.
Import incomplete	Only validated rows are processed; rerun validation.

15.5 What Users Should Know

- Always follow the prescribed sequence
- Begin with foundational reference data
- Validate often; imports are blocked until errors are fixed. However Partial imports available.
- After import, confirm data in live IFS Cloud pages.

16 CSV Columns to Staging Tables Information

- Refer to the CSV templates for data format specifications.
- Talk to your IFS Data Migration Consultant for more information about Staging Tables.

17 Error Information

There are three main Error Severity Codes for Baseline Data Validating purposes. They are as follows:

Error Severity Code	Error Severity Description	Impact
Critical	<p>Critical' means that there is a data loading error because of erroneous data.</p> <p><i>Example -serial_no_oem cannot be NULL or consist entirely of spaces</i></p>	Validation Failed and Data cannot be imported.
Dependency	<p>'Dependency' means that there is a data loading error because some data points cannot be loaded until dependent data is loaded.</p> <p><i>Example - Cannot load record because the related parent assembly record in C_RI_INVENTORY_SUB is invalid</i></p>	Validation failed and Data cannot be imported
Warning	<p>Warning' means that there is a data loading error because of some inconsistencies within the data set.</p> <p><i>Example - Manufactured Date must be provided because this part has at least one task definition that is scheduled from the manufactured date</i></p>	Validation is partially success, Data can be imported with this error level

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A detailed breakdown of all known errors can be found [here](#).

18 Important Links

- [Data Migration Lifecycle](#)
- [Data Management – Technical Documentation for IFS Cloud](#)
- [Baseline Loader User Guide](#)