IFS Aviation Maintenance

DACs API Guide

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Introduction

Business Problem

Life Limited Parts (LLP) are some of the most carefully studied components within any aircraft system. This is due to the high level of stress and temperatures in which they operate.

Part life is consumed faster when there is more thrust (less de-rate), more throttle movements (minor cycles) and shorter warm up times. Less severe operation means less stress on these components and thus a longer life. For safety reasons engine manufacturers traditionally have assumed the most severe usage conditions to define the life of LLP.

The set of LLP on an engine represents a significant portion of the full cost of the engine. Usage on the LLP drives the maintenance cost for the engine. To ensure that airlines optimize the use of their LLP, Rolls-Royce (RR) has outlined a program which allows operators to maximize the use of these parts based on the actual flight and operating conditions. By taking advantage of the increased levels of data that new engines can provide, and data analysis capabilities, RR is able to determine the real usage these parts accumulate in each flight.

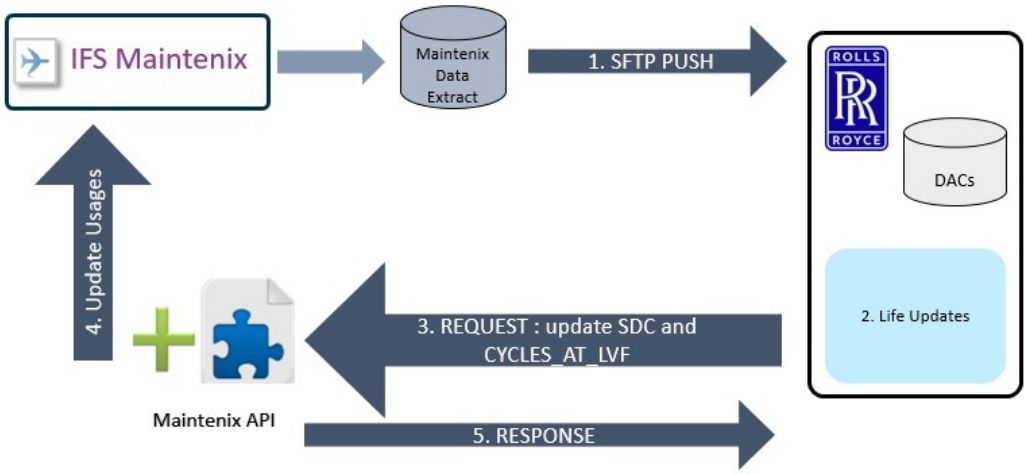
Solution

Blue Data Thread (BDT) is a RR program in support of their Intelligent Engine initiative. RR is rolling out BDT through all of their Global Airline customers (200+) to deliver a win-win transaction enabling: Improved data, and more intelligent decision support, meaning fewer disruptions and greater availability. With BDT, RR is taking the lead to make airline and OEM integration projects significantly easier to implement and to operate. The BDT is part of the RR digital solution which includes DACs and non-DACS engines.

Using the new DACs (Direct Accumulated Counters) program, RR customers can now extend the life of their LLP using the calculated cycles of these parts or Standard Duty Cycles (SDC). This will result in significant cost saving in the operation of the engine.

Furthermore, IFS and RR have partnered to enable operators to leverage their existing IFS Maintenix implementation to send operational data to RR and receive life limit updates from RR through automated integrations with minimal manual intervention. This allows operators to seamlessly integrate the RR DACs program into their existing IFS Maintenix maintenance process.

The following figure illustrates the high-level solution elements:



Interaction Overview

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Setting up DACs

Network Security

The BDT and DACs integration requires outbound access for the IFS Maintenix Jaspersoft server for sending the data extracts. This may require network security configuration of proxy or firewall settings to allow the connection to be made on **port 22** with **protocol SFTP.**

The DACs integration requires inbound access for Rolls-Royce to Maintenix APIs for the lifing updates. This may require network security configuration of proxy or firewall settings to allow access to the path beginning:

1. *https://<mx-appserver:port>/amapi/materials/asset/inventory*
2. *https://<mx-appserver:port>/amapi/materials/asset/inventory/usagerecord*

Authorization and Authentication

The default API user (dacsintegration) is provided with the integration software and is pre-allocated with the required permissions via the role DACINTEG (the DACINTEG role is created automatically upon installation of the DACs software). This information is required to access IFS Maintenix inbound APIs and needs to be configured in RR client software or third party.

- Basic Authentication: Valid username and password
- The API user, e.g. dacsintegration as default, needs appropriate authorization and so they must have all necessary API permissions

The DACINTEG role can be given to any other user if desired, following the role hierarchy rules. The password for the user should be set according to the password policy in place.

Permissions and Configuration Parameters

To set up the BDT solution, the following permission settings must be assigned to the user**.** The permissions can be found through the IFS Maintenix web interface on the Permissions tab of the roles assigned to the user. The global configuration parameters can be updated through the database.

It is important to note that the role names used here such as "engineer" and "maintenance program engineer" may be named differently in the IFS Maintenix web interface; ensure all there permissions are enabled for the role name corresponding to the SME.

Permission Settings for Solution

Category	Parameter Name - Set to TRUE
Engineer	
Assembly - Usage Definitions	ACTION_ASSIGN_USAGE_PARM
Assembly - Usage Definitions	ACTION_ASSIGN_USAGE_PARM_CALC
Assembly - Usage Definitions	ACTION_CREATE_CALC_PARM
Assembly - Usage Definitions	ACTION_CREATE_USAGE_DEFINITION
Assembly - Usage Definitions	ACTION_CREATE_USAGE_PARM
Assembly - Usage Definitions	ACTION_DELETE_CALCULATED_PARM
Assembly - Usage Definitions	ACTION_DELETE_USAGE_DEFINITION
Assembly - Usage Definitions	ACTION_EDIT_USAGE_PARM
Assembly - Usage Definitions	ACTION_REMOVE_INPUT
Assembly - Usage Definitions	ACTION_REORDER_USAGE_PARMS
Assembly - Usage Definitions	ACTION_SYNCH_USAGE_PARMS
Assembly - Usage Definitions	ACTION_UNASSIGN_USAGE_PARM
Assembly – Flight Measurement	ACTION_ASSIGN_FLIGHT_MEASUREMENT
Assembly – Flight Measurement	ACTION_ASSIGN_MEASUREMENT
Assembly – Flight Measurement	ACTION_CREATE_MEASUREMENT
Assembly – Flight Measurement	ACTION_EDIT_FLIGHT_MEASUREMENT
Assembly – Flight Measurement	ACTION_EDIT_MEASUREMENT

Category	Parameter Name - Set to TRUE
Assembly – Flight Measurement	ACTION_REORDER_MEASUREMENT
Assembly – Flight Measurement	ACTION_UNASSIGN_MEASUREMENT
Maintenance Program Engineer	
Maintenance Program -Requirements	ACTION_ADD_REQ_PART_SPECIFIC _SCHEDULING_RULE
Maintenance Program -Requirements	ACTION_ADD_REQ_SCHEDULING_RULE
Maintenance Program -Requirements	ACTION_CREATE_REQ
Maintenance Program -Requirements	ACTION_CREATE_REQ_REVISION
Maintenance Program -Requirements	ACTION_EDIT_REQ
Maintenance Program -Requirements	ACTION_EDIT_REQ_PART_SPECIFIC _SCHEDULING_RULE
Maintenance Program -Requirements	ACTION_EDIT_REQ_SCHEDULING_RULES
Maintenance Program -Requirements	ACTION_INITIALIZE_REQ
Maintenance Program -Requirements	ACTION_REMOVE_REQ_SCHEDULING _RULE
Maintenance Program -Requirements	ACTION_DUPLICATE_REQ
Flight (*Global Config Parameters)*	
Flight – Creation, Update, and Completion	FLIGHT_ENTRY_COPY_ACTUAL_DT

Job Schedule

The Jasper jobs for each data set should be scheduled to run as per the respective data set requirement. The following table shows default scheduling as per RR requirements but are configurable upon agreement with RR or third party. The operators will need to agree to a daily time with RR or third party that is mutually acceptable for low system usage and to ensure load is spread out for the receiving system.

When carrying out acceptance testing and for adhoc transactions, such as the initial "back to birth" extract, these parameters will need to have higher values, but consider the performance impact on the system. The Operators will adjust the value(s) in the Parameters tab for the relevant report.

Default Schedules and Parameters

Report (Dataset name)	Schedule	Parameter	
		Lag	**DayRange**
FlightData	Daily	0	10
AircraftData	Daily	N/A	N/A
EngineData	Daily	N/A	N/A
PartData	Daily	N/A	N/A
EngineTransaction	Daily	N/A	10
PartTransactions	Daily	N/A	10
DocApplicationTransaction	Daily	N/A	10
EngineRatingChange	Daily	N/A	10
LogbookData	Daily	N/A	10
EventData	Daily	N/A	10

Creating a Job

To create a job's schedule, follow these steps:

Steps

1. Log into JasperReports Server using a superuser user.
2. Click on the View menu and select 'Repository'.
3. Navigate the hierarchy to the dacs folder where the report is defined (ex: /organizations/Maintenix/Reports/dacs).
4. Right click on the desired report and choose Schedule.
5. Click on the Create Schedule button.
6. Set up schedule start date.
7. Set timezone to **UTC - Coordinated Universal Time**.
8. Set up the recurrence type, by selecting "Simple" and select the repeat interval (default or agreed)
9. Navigate to Parameters tab, set up report parameter(s), when applicable.
10. Navigate to Output Options and configure the following items:
    a) Set the File Name to <dataset-name>_<Operator_Identifier>_<Source-system-code>_<integration_version> where:

- Operator Identifier = **Operator's ICAO code**
- Source-system = **IFS**
- integration_version = **1**

> **Note** integration_version is '1' until advised otherwise by RR or third party

Example: AircraftData_XXX_IFS_1

b) Set Output Locale to **en-English**.
c) Select Formats to **CSV** and deselect **PDF**
d) Select File Handling **Overwrite Files** and **Sequential File Names By Timestamp**
e) Set the Timestamp Pattern to **YYYY-MM-dd.**
f) Deselect Output to Repository.
g) Select **Output To FTP Server**
h) Server Address: Will be provided by RR or third party.
i) Transfer Protocol: Select SFTP (FTP over SSH) this will also change the port to 22.
j) Determined by agreement with RR or Third Party SSH Key authentication or a Username/ Password combination will be used. Any SSH key should be RSA and generated by Operator IT as per the requirements which vary per environment.
k) If required select **SSH Key Authentication** and navigate to SSH Private Key. For adding SSH Key Authentication refer to *Uploading SSH Key File*.
l) Directory: share/upload.
m) Username: The username will be provided by RR or third party.
n) Password: Will be provided by RR or third party. (For SSH Key Authentication leave password blank)
o) Use the "Test Connection" button to validate the connection.

11. Navigate to the Notifications tab and set up email notification for when the report runs and job status notification for success and failure.

> **Note** The SMTP (email server) information will need to be added to the reports server configuration for email notifications to be delivered. Details can be found in the IFS Maintenix Operator Installation and Configuration Guide under *Set up reports with Jaspersoft > Configure the email settings for notification of report generation*.

12. Select the "Save" button.

13. Input the Scheduled Job Name this is for internal use

14. Repeat for each report in the table above.

Uploading SSH Key File

Uploading an SSH Private Key File to the Repository JasperReports Server allows you to export scheduled reports or dashboards over SFTP to an FTP server. If the FTP server uses SSH key authentication, you will need to upload a SSH private key file to the repository as a Secure File resource.

About this task

While the SSH private key is being used in a scheduled report or dashboard job, it cannot be deleted from JasperReports Server.

To upload an SSH key file to the repository:

Steps

1. Log into JasperReports Server as an administrator.
2. Click View > Repository and expand the folder tree.
3. Browse to the folder where you want to save the SSH key.
4. Right-click the folder and select Add Resource > File > Secure File from the context menu.
5. Click Choose File to locate and upload the SSH key file.
6. Enter a name and resource ID for the file.
7. Click Submit to save the file to the repository.

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Jaspersoft Extracts

Flight Data Set Mapping

Scope for the extracted data

- Completed flights by aircraft with Rolls-Royce engine installed
  - Filter by manufacturer code = 'K0680'
  - Return flights with FLIGHT_LEG_STATUS_CD = MXCMPLT and MXEDIT
- The report parameters DayRange and Lag filter the data using the ScheduledDepartureDateTime

Data Mapping

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
FlightId	Not Visible in the UI	FL_LEG.LEG_ID	Flight leg unique internal ID
LastUpdate	Flight Details Page / History Tab / Date (of the last update)	FL_LEG.REVISION_DT	
OperatorCode	Inventory Details (of the aircraft) / Inventory Information / Operator	ORG_CARRIER.ICAO_CD	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
FlightNumber	Flight Details / Flight Section / Flight Name	FL_LEG.LEG_NO	
ServiceType	Not Visible in the UI	REF_FLIGHT_TYPE. SPEC2K_FLIGHT_TYPE_CD	Codes are not according to IATA codes.
ScheduleDeparture Airport	N/A	N/A	Data not recorded in IFS Maintenix
ScheduledDeparture DateTime	Flight Details / Departure & Arrival Section / Scheduled Departure Airport	FL_LEG.SCHED_DEPARTURE _DT	Not a mandatory field in IFS Maintenix
ScheduledArrivalAirport	N/A	N/A	Data not recorded in IFS Maintenix
ScheduledArrivalDate Time	Flight Details / Departure & Arrival Section / Scheduled Arrival Airport	FL_LEG.SCHED_ARRIVAL _DT	Not a mandatory field in Maintenix
AircraftRegistration	Inventory Details / Aircraft Information Section / Registration Code	INV_AC_REG.AC_REG_CD FL_LEG -> INV_INV -> INV_AC_REG	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
DepartureAirport	Flight Details / Departure & Arrival Section / Departure Airport	INV_LOC.LOC_CD FL_LEG -> INV_LOC	The IATA 3 letter code will be returned
ActualOffBlockDate Time	Flight Details / Departure & Arrival Section / Actual Departure Date	FL_LEG.ACTUAL_ DEPARTURE_DT	
ActualAirborneDate Time	Flight Details / Departure & Arrival Section / Up Date	FL_LEG.OFF_DT	If the ActualAirboneDate Time is not recorded in Maintenix it will return the same data as the ActualOffBlockDate Time
ActualLandingDate Time	Flight Details / Departure & Arrival Section / Down Date	FL_LEG.ON_DT	If the ActualLandingDate Time it not recorded in Maintenix it will return the same data as the ActualOnBlockDate Time
ActualOnBlockDate Time	Flight Details / Departure & Arrival Section / Down Actual Arrival Date	FL_LEG.ACTUAL_ARRIVAL _DT	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
ArrivalAirport	Flight Details / Departure & Arrival Section / Arrival Airport	INV_LOC.LOC_CD FL_LEG -> INV_LOC	The IATA 3 letter code will be returned May be different to scheduled arrival airport in case of a diversion
FlightTime	Flight Details / Usage Accrued Section / TSN HOURS – Delta	USG_USAGE_DATA.TSN_DELTA_QT HOURS: data_type_id = 1	Returns flying hours with two decimals
FlightCycle	Flight Details / Usage Accrued Section / TSN CYCLES – Delta	USG_USAGE_DATA.TSN_DELTA_QT CYCLES: data_type_id = 10	
GoArounds	Flight Details Page / Measurements Tab / GOAROUND (Paramenter) / Value	fl_leg_measurement.data_qt Flight Measurement = GOAROUNDS	Returns the number of GoArounds on the Aircraft for that flight
TotalAircraftHours	Flight Details / Usage Accrued Section / TSN - HOURS (Flying Hours)	USG_USAGE_DATA.TSN_QT HOURS: data_type_id = 1	Returns flying hours with two decimals at time of flight

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TotalAircraftCycles	Flight Details / Usage Accrued Section / TSN - CYCLES (Cycles)	USG_USAGE_DATA.TSN_QT CYCLES: data_type_id = 10	Returns cycles on the aircraft at the time of flight

Aircraft Data Set Mapping

Scope for the extracted data

- Aircraft with Rolls-Royce Engine Installed
  - Filter by manufacturer code = 'K0680'
- There are no report parameters for additional filtering

Data Mapping

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
Aircraft Registration	Inventory Details / Aircraft Information Section / Registration Code	INV_AC_REG.AC_REG_CD	
SerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.SERIAL_NO_OEM	
OperatorCode	Inventory Details / Inventory Information / Operator	ORG_CARRIER.ICAO_CD	Returns the operator 3 letters ICAO code

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
Owner	Inventory Details / Inventory Information / Owner	INV_OWNER.OWNER_CD	Returns the owner code.
Holder	Location Details / Details Section / Type	INV_LOC.LOC_TYPE_CD	
ManufacturerCAGE Code	Inventory Details / Additional Detail section – Manufacturer	EQP_PART_NO. MANUFACT_CD (INV_INV.PART_NO_ID -> EQP_PART_NO.PART_NO_ID INV_INV.PART_NO_DB_ID -> EQP_PART_NO.PART_NO _DB_ID)	
ManufactureDate	Inventory Details / Inventory Information / Manufacturer Date	INV_INV.MANUFACT_DT	
DeliveryDate	Inventory Details / Inventory Information / Received Date	INV_INV.RECEIVED_DT	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
ReturnDate	Inventory Details / Historical Tab / Additional Tab / Event Date (for event with 'Condition Change to ARCHIVE')	EVT_EVENT.EVENT_DT	Returns the date the inventory condition was last changed to ARCHIVE or SCRAP.
AircraftServiceability	Inventory Details / Inventory Information / Serviceable Boolean	REF_INV_COND.SRV_BOOL	If checked return SERVICEABLE. If uncheck UNSERVICEABLE In IFS Maintenix, inventory is Serviceable when aircraft is in condition RFI (Ready for Issue) or INSRV (In service).
AircraftStatus	Inventory Details / Inventory Information / Condition	INV_INV.INV_COND_CD	Returns the condition code.
AircraftStation	Inventory Details / Inventory Information / Location	INV_LOC.LOC_CD	Return the IATA 3 letter airport code
TSN	Flight Details / Usage Accrued Section / TSN - HOURS (Flying Hours)	INV_CURR_USAGE.TSN_QT HOURS: data_type_id = 1	Returns flying hours with two decimals

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
CSN	Flight Details / Usage Accrued Section / TSN - CYCLES (Cycles)	INV_CURR_USAGE.TSN_QT CYCLES: data_type_id = 10	
LastUpdate	Flight Details / Departure & Arrival Section / Actual Arrival Date	FL_LEG.ACTUAL_ARRIVAL _DT	Returns the date of the last completed or edited flight
LastUpdateFlightId	Not visible in the UI	FL_LEG.LEG_ID	Flight leg unique internal id
AircraftType	Inventory Details / Inventory Information / Assembly	INV_INV. ASSMBL_CD	
AircraftVariant	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO.PART_NO _OEM (INV_INV.PART_NO_ID -> EQP_PART_NO.PART_NO_ID INV_INV.PART_NO_DB_ID -> EQP_PART_NO.PART_NO _ DB_ID)	
AircraftSubFleet	Inventory Details / Forecasting Section / Forecast Model	FC_MODEL.DESC_SDESC -> INV_AC_REC.FORECAST_ MODEL_ID	

Engine Data Set Mapping

Scope for the extracted data

- Only Rolls-Royce Engines (installed or loose)
  - Filter by Manufacturer code = 'K0680'
- There are no report parameters for additional filtering

Data Mapping

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
EnginePartNumber	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO.PART_NO_OEM	
EngineSerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.SERIAL_NO_OEM	
EngineID	Not visible in the UI	INV_INV.ALT_ID	Returns the Inventory ID
Owner	Inventory Details / Inventory Information / Owner	INV_OWNER.OWNER_CD	Returns the owner code.
Holder	Location Details / Details Section / Type	INV_LOC.LOC_TYPE_CD	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
ManufacturerCAGE Code	Inventory Details / Additional Detail section – Manufacturer	EQP_PART_NO. MANUFACT_CD	Will always return Rolls-Royce Manufacturer CAGE code = 'K0680'
ManufactureDate	Inventory Details / Inventory Information / Manufacturer Date	INV_INV.MANUFACT_DT	
DeliveryDate	Inventory Details / Inventory Information / Received Date	INV_INV.RECEIVED_DT	
ReturnDate	Inventory Details / Historical Tab / Additional Tab / Event Date (for event with 'Condition Change to ARCHIVE')	EVT_EVENT.EVENT_DT	Returns the date the inventory condition was last changed to ARCHIVE or SCRAP.
AircraftRegistration	Inventory Details / Aircraft Information Section / Registration Code	INV_AC_REG.AC_REG_CD	Returns the registration code corresponding to the aircraft the engine is installed on. If not installed will be empty.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
Position	Inventory Details / Sub Inventory Tab / Engine - Position	EQP_ASSMBL_POS.EQP_POS_CD	If not installed will be empty.
InstalledDateTime	Inventory Details / Historical Tab / Installation / Event Date (Last Installation of the Engine)	EVT_EVENT.EVENT_DT	Returns the date the engine was last installed. If not installed will be empty.
EngineServiceability	Inventory Details / Inventory Information / Serviceable Boolean	REF_INV_COND.SRV_BOOL	If checked return SERVICEABLE. If uncheck UNSERVICEABLE In IFS Maintenix, inventory is Serviceable when aircraft is in condition RFI (Ready for Issue) or INSRV (In service).
EngineStatus	Inventory Details / Inventory Information / Condition	INV_INV.INV_COND_CD	Returns the condition code.
EngineStation	Inventory Details / Inventory Information / Location	INV_LOC.LOC_CD	For uninstalled engine, returns the IATA 3 letter airport code. If engine is installed, field will be blank.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TSN	Inventory Details / Current Usage Section / TSN (HOURS)	INV_CURR_USAGE.TSN_QT HOURS: data_type_id = 1	Returns flying hours with two decimals
CSN	Inventory Details / Current Usage Section / TSN (CYCLES)	INV_CURR_USAGE.TSN_QT CYCLES: data_type_id = 10	
TSO	Inventory Details / Current Usage Section / TSO (HOURS)	INV_CURR_USAGE.TSO_QT CYCLES: data_type_id = 1	Returns flying hours since overhaul with two decimals
CSO	Inventory Details / Current Usage Section / TSO (CYCLES)	INV_CURR_USAGE.TSO_QT CYCLES: data_type_id = 10	
TSR	Not visible in the UI	TSR = (INV_CURR_USAGE.TSN_QT) minus (last completed work package usage) HOURS: data_type_id = 1	Returns the flight time since the last Work Package with two decimals TSR = TSN minus TSN at the time of the last completed Work Package to that engine. Last WP against the actual inventory.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
CSR	Not visible in the UI	CSR = (INV_CURR_USAGE.TSN_QT) minus (last completed work package usage) CYCLES: data_type_id = 10	Returns the cycles since the last Work Package CSR = TSN minus TSN at the time of the last completed Work Package to that engine. Last WP against the actual inventory.
LastUpdate	Flight Details / Departure & Arrival Section / Actual Arrival Date	FL_LEG.ACTUAL_ARRIVAL_DT	Returns the date of the last completed or edited flight
LastUpdateFlightId	Not visible in the UI	FL_LEG.LEG_ID	Returns the flight leg unique internal id of the last completed or edited flight
EngineType	Assembly Details / Assembly Identity Section / Assembly Code	INV_INV.ORIG_ASSMBL_CD	Returns the Engine Assembly Code.
EngineVariant	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO.PART_NO_OEM	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
EngineRating	Inventory Details / Additional Detail section – Part Name (after the dash)	EQP_PART_NO.PART_NO _SDESC	Returns what is after the dash in the Part Name

Part Data Set Mapping

Scope for the extracted data

- Return only parts manufactured by Rolls-Royce that belong to a Rolls-Royce engine (installed or loose)
  - Filter by Manufacturer code = 'K0680'
- Only Tracked Parts who belong to a Rolls-Royce engine (Highest Assembly = Rolls-Royce Engine)
- All Part Status (e.g. BUILD, ACTV, OBSOLETE) and Inventory Status (e.g. RFI, Scrap, Archive) will be returned
- There are no report parameters for additional filtering

Data Mapping

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
PartNumber	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO.PART _NO_OEM	
SerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.SERIAL_NO _OEM	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
ComponentID	Not visible in the UI	INV_INV.ALT_ID	Returns the Inventory ID
Owner	Inventory Details / Inventory Information / Owner	INV_OWNER.OWNER _CD	Returns the owner code.
Holder	Location Details / Details Section / Type	INV_LOC.LOC_TYPE _CD	
ManufacturerCAGE Code	Inventory Details / Additional Detail section – Manufacturer	EQP_PART_NO. MANUFACT_CD	Will always return Rolls-Royce Manufacturer CAGE code = 'K0680
ManufactureDate	Inventory Details / Inventory Information / Manufacturer Date	INV_INV.MANUFACT _DT	
DeliveryDate	Inventory Details / Inventory Information / Received Date	INV_INV.RECEIVED _DT	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
ReturnDate	Inventory Details / Historical Tab / Additional Tab / Event Date (for event with 'Condition Change to ARCHIVE')	EVT_EVENT.EVENT _DT	Returns the date the inventory condition was last changed to ARCHIVE or SCRAP.
AircraftRegistration	Inventory Details / Aircraft Information Section / Registration Code	INV_AC_REG.AC_ REG_CD	If the inventory is not installed on an aircraft it will be blank.
Position	Inventory Details / Sub Inventory Tab / Engine - Position	EQP_ASSMBL_POS. EQP_POS_CD	Returns the parent engine position. If not installed it will be empty
InstalledDateTime	Inventory Details / Historical Tab / Installation / Event Date (Last Installation of the Engine)	EVT_EVENT.EVENT _DT	Returns the date the inventory was last installed in the engine.
EnginePart Number	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO.PART _NO_OEM	Returns the OEM Part Number for the Parent inventory, at the parent assembly level. If not installed it will be empty.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
EngineSerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.SERIAL_ NO_OEM	Returns the OEM Serial Number for the Parent inventory, at the parent assembly level. If not installed it will be blank.
EngineID	Not visible in the UI	INV_INV.ALT_ID	Returns the InventoryID for the Parent inventory, at the parent assembly level. If not installed will be empty.
PartServiceability	Inventory Details / Inventory Information / Serviceable Boolean	REF_INV_COND. SRV_BOOL	If checked returns SERVICEABLE. If uncheck UNSERVICEABLE In IFS Maintenix, inventory is Serviceable when aircraft is in condition RFI (Ready for Issue) or INSRV (In service).
PartStatus	Inventory Details / Inventory Information / Last Received Condition	REF_RECEIVE_COND. RECEIVE_COND_CD	
PartStation	N/A	N/A	Not required.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TSN	Inventory Details / Current Usage Section / TSN (HOURS)	INV_CURR_USAGE. TSN_QT HOURS: data_type_id = 1	Returns flying hours with two decimals
CSN	Inventory Details / Current Usage Section / TSN (CYCLES)	INV_CURR_USAGE. TSN_QT CYCLES: data_type_id = 10	
TSO	Inventory Details / Current Usage Section / TSO (HOURS)	INV_CURR_USAGE. TSO_QT CYCLES: data_type_id = 1	Returns flying hours since overhaul with two decimals
CSO	Inventory Details / Current Usage Section / TSO (CYCLES)	INV_CURR_USAGE. TSO_QT CYCLES: data_type_id = 10	
TSR	Not visible in the UI	TSR = (INV_CURR_USAGE. TSN_QT) minus (last completed work package usage) HOURS: data_type_id = 1	Returns the flight time since the last completed Work Package with two decimals TSR = TSN minus TSN at the time of the last completed Work Package to that engine. Last WP against the actual inventory.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
CSR	Not visible in the UI	TSR = (INV_CURR_USAGE. TSN_QT) minus (last completed work package usage) CYCLES: data_type_id = 10	Returns the cycles since the last completed Work Package CSR = TSN minus TSN at the time of the last completed Work Package to that engine.
LastUpdate	Flight Details / Departure & Arrival Section / Actual Arrival Date	FL_LEG.ACTUAL_ ARRIVAL_DT	Returns the date of the last completed or edited flight when the inventory was installed on an aircraft.
LastUpdateFlightId	Not visible in the UI	FL_LEG.LEG_ID	Returns the flight leg unique internal id of the last completed or edit when the inventory was installed on an aircraft.
SDC	Inventory Details / Current Usage Section / TSN (SDC)	INV_CURR_USAGE. TSN_QT data_type_CD = SDC	
SDCLastUpdate	Inventory Details / Historical Tab / Usage Tab / Date -for Type SDC (TSN)	INV_CURR_USAGE.REVISION_DT data_type_CD = SDC	Returns the time stamp for the last SDC update.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
SDCLastUpdateFlightId	Not visible in the UI	FL_LEG.LEG_ID	Returns the flight leg unique internal id of the last completed or edit flight in IFS Maintenix with TSN equal CYCLES_AT_LVF while not removed.

Engine Transaction Data Set Mapping

Scope for the extracted data

- Transactions related to Rolls-Royce manufactured engines
  - Filter by manufacturer code = 'K0680'
- Engine transactions are considered Installation, Removal and Shipments. Transfers are excluded.
- Filter by event_status_cd = IXCOMPLETE for shipment
- All Shipments type (repair order, stock transfer, etc.)
- When Installation and Removal are complete in the same Part Requirement, two rows will be returned, one for each transaction.
- The report parameter DayRange filter the data using the TransactionCreatedDateTime.

Data Mapping

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TransactionID	Not visible in the UI	SCHED_STASK.ALT_ID EVT_EVENT.ALT_ID	Returns Task ID for Installation and Removal. Returns Shipment ID for Shipment.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TransactionType	Shipment: Inventory Details/ Historical tab/ Movement tab Install/Removal: Inventory Details/ Historical tab/ Installation tab	EVT_EVENT.EVENT_STATUS_CD	The types of transactions are: • Installation • Removal • Shipment Filter by: IX = Shipment and FG = Install/Removal EVT_EVENT.EVENT_STATUS_CD for Install = FGINSTL and Removal = FGRMVL
TransactionStation	Install/Removal: Work Package Details / Details Tab/Work Location Shipment: Shipment Details/Identification Section/Ship From	INC_LOC.LOC_CD, SHIP_SHIPMENT.SHIPMENT_TYPE_CD	Shipment: To Location on Outbound Shipments / From Location for inbound Shipments Install/Removal : WP location
TransactionDestination	Not visible in the UI	Check the transaction type above, and apply the following rule: • If Installation, display 'ACFT' • EVT_EVENT.EVENT_STATUS_CD	Install: 'ACFT' Removal: 'Store' Shipment Outbound: 'Overhaul or repair' Shipment Inbound or STOCK: 'Store'

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TransactionDateTime	Installation/Removal: Task Details/Task Information /Section – Actual End Date Outbound Shipment: Shipment Details / Details Tab / Details Section / Shipment Date Inbound Shipment: Shipment Details / Details Tab / Routing Section / Completion Date	Installation/Removal: EVT_EVENT.EVENT_DT Outbound Shipment: EVT_EVENT.ACTUAL_START_DT Inbound Shipment: EVT_EVENT.EVENT_DT	Outbound shipment: Date it was sent Inbound Shipment: Complete Date Install/Removal: Date that work occurred
TransactionCreated DateTime	Task Details/History Tab/Section – History / Column - Date	EVT_EVENT. CREATION_DT, EVT_STAGE.STAGE_DT	
EnginePartNumber	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO.PART_NO_OEM	
EngineSerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.SERIAL_NO_OEM	
EngineID	Not visible in the UI	INV_INV.ALT_ID	Returns the Inventory ID
Owner	Inventory Details / Inventory Information / Owner	INV_OWNER.OWNER_CD	Returns the owner code.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
EngineStatus	Inventory Details / Inventory Information / Condition	INV_INV.INV_COND_CD	Returns the condition code. Blank for Shipments.
AircraftRegistration	Inventory Details / Task/ Section – Parent Assembly	INV_AC_REG.AC_REG_CD	Returns the registration code corresponding to the aircraft the engine is installed on. If not installed it will be blank. If shipment it will be blank.
Position	Inventory Details/ Sub Inventory tab/ Column – Position	EQP_ASSMBL_POS.EQP_POS_CD	If not installed it will be blank. If shipment it will be blank.
InstRemDateTime	Task Details/ Task Information/ Identification Section/ End Date	EVT_EVENT.EVENT_DT	Returns the date the engine was last installed / removed. If shipment it will be blank..
InstRemType	Not visible in the UI	REF_REMOVE_REASON.SPEC2K_REMOVE_REASON_CD	Blank for installation and shipments. SPEC2K_REMOVE_REASON_CD on REF_REMOVE_REASON in the Reason for removal on Historical Installation
InstRemReason	Task Details / Task Information / Reason for Removal	REF_REMOVE_REASON.REMOVE_REASON_CD	Blank for installation and shipments.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TSN	Inventory Details / Current Usage Section / TSN (HOURS)	EVT_INV_USAGE.TSN_QT HOURS: data_type_id = 1	Returns flying hours with two decimals Returns the usage when the transaction occurred (link by event_id)
CSN	Inventory Details / Current Usage Section / TSN (CYCLES)	EVT_INV_USAGE.TSN_QT CYCLES: data_type_id = 10	Returns the usage when the transaction occurred (link by event_id)
TSO	Inventory Details / Current Usage Section / TSO (HOURS)	EVT_INV_USAGE.TSO_QT CYCLES: data_type_id = 1	Returns flying hours since overhaul with two decimals Returns the usage when the transaction occurred (link by event_id
CSO	Inventory Details / Current Usage Section / TSO (CYCLES)	EVT_INV_USAGE.TSO_QT CYCLES: data_type_id = 10	Returns the usage when the transaction occurred (link by event_id
TSR	Not visible in the UI	TSR = (EVT_INV_USAGE. TSN_QT) minus (last completed component work package usage) HOURS: data_type_id = 1	Returns the flight time since the last Work Package with two decimals TSR = TSN minus TSN at the time of the last completed Work Package to that engine. Last WP against the actual inventory.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
CSR	Not visible in the UI	CSR = (EVT_INV_USAGE. TSN_QT) minus (last completed component work package usage) CYCLES: data_type_id = 10	Returns the cycles since the last Work Package CSR = TSN minus TSN at the time of the last completed component Work Package to that engine. Last WP against the actual inventory.

Part Transaction Data Set Mapping

Scope for the extracted data

- Transactions related to parts manufactured by Rolls-Royce that belong to a Rolls-Royce engine (installed or loose)
  - Filter by manufacturer code = 'K0680'
- Only Tracked Parts who belong to a Rolls-Royce engine (Assembly = Rolls-Royce Engine)
- All Part Status (e.g. BUILD, ACTV, OBSOLETE) and Inventory Status (e.g. RFI, Scrap, Archive) will be returned
- The report parameter DayRange filter the data using the TransactionCreatedDateTime.

Data Mapping

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TransactionID	Not visible in the UI	SCHED_STASK.ALT_ID EVT_EVENT.ALT_ID	Returns Task ID for Installation and Removal. Returns Shipment ID for Shipment.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TransactionType	Shipment: Inventory Details/ Historical tab/ Movement tab Install/ Removal: Inventory Details/ Historical tab/ Installation tab	EVT_EVENT.EVENT_TYPE _CD	The types of transactions are: • Installation • Removal • Shipment Filter by: IX = Shipment and TS = Install/Removal TS -> distinguish between Installation and removal
TransactionStation	Install/ Removal: Work Package Details / Details Tab/ Work Location Shipment: Shipment Details/ Identification Section/Ship From	evt_loc.loc_db_id, evt_loc.loc_id event ID to link to the evt_loc	Shipment: Location of Outbound Shipment Install/Removal : WP location To Location on Outbound Shipments / From Location for inbound Shipments
TransactionDestination	Not visible in the UI	Following logic applied: • If Installation, display 'ACFT' • If Removal, display 'Store' • If Outbound Shipment Outbound, display 'Overhaul or repair' • If Inbound Shipment, or type STOCK display Store	Install: 'ACFT' Removal: 'Store' Shipment Outbound: 'Overhaul or repair' Shipment Inbound or STOCK: 'Store'

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TransactionDateTime	Installation/ Removal: Task Details/Task Information / Section – Actual End Date Outbound Shipment: Shipment Details / Details Tab / Details Section / Shipment Date Inbound Shipment: Shipment Details / Details Tab / Routing Section / Completion Date	Installation/Removal: EVT_EVENT.EVENT_DT Outbound Shipment: EVT_EVENT.ACTUAL_START_DT Inbound Shipment: EVT_EVENT.EVENT_DT	Outbound shipment: Date it was sent Inbound Shipment: Complete Date Install/Removal: Date that work occurred
TransactionCreated DateTime	Task Details/ History Tab/ Section – History / Column - Date	EVT_STAGE. STAGE_DT	
PartNumber	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO.PART_NO_OEM	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
SerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.OEM_SERIAL_NO	
ComponentID	Not visible in the UI	INV_INV.ALT_ID	Returns the Inventory ID
Owner	Inventory Details / Inventory Information / Owner	INV_OWNER.OWNER_CD	Returns the owner code.
ComponentStatus	Inventory Details / Inventory Information / Condition	INV_INV.INV_COND_CD	Returns the condition code.
AircraftRegistration	Inventory Details / Task/ Section – Parent Assembly	INV_AC_REG.AC_REG_CD	Returns the registration code corresponding to the aircraft the engine is installed on. If engine is not installed or shipment transaction, it will be blank.
Position	Inventory Details/ Sub Inventory tab/ Column – Position	EQPASSMBL_BOM.ASSMBL_BOM_CD	If engine is not installed or shipment transaction, it will be blank.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
EnginePartNumber	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO.PART_NO_OEM	Returns the OEM Part Number for the Parent inventory, at the parent assembly level. If shipment transaction, it will be blank.
EngineSerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.OEM_SERIAL_NO	Returns the OEM Serial Number for the Parent inventory, at the parent assembly level. If shipment transaction, it will be blank.
EngineID	Not visible in the UI	INV_INV.ALT_ID	Returns the InventoryID for the Parent inventory, at the parent assembly level. If shipment transaction, it will be blank.
InstRemDateTime	Task Details/ Task Information/ Identification Section/ End Date	EVT_EVENT.EVENT_DT	Returns the date the engine was last installed / removed. If shipment transaction, it will be blank.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
InstRemType	Not visible in the UI	REF_REMOVE_REASON. SPEC2K_REMOVE_REASON _CD	Blank for installation and shipments. SPEC2K_REMOVE_ REASON_CD on REF_REMOVE _REASON in the Reason for removal on Historical Installation
InstRemReason	Task Details / Task Information / Reason for Removal	REF_REMOVE_REASON. REMOVE _REASON_CD	Blank for installation and shipments.
TSN	Not visible in the UI	EVT_INV_USAGE.TSN_QT HOURS: data_type_id = 1	Returns flying hours with two decimals Returns the usage when the transaction occurred (link by event_id)
CSN	Not visible in the UI	EVT_INV_USAGE.TSN_QT CYCLES: data_type_id = 10	Returns the usage when the transaction occurred (link by event_id)
TSO	Not visible in the UI	EVT_INV_USAGE.TSO_QT CYCLES: data_type_id = 1	Returns flying hours since overhaul with two decimals Returns the usage when the transaction occurred (link by event_id)

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
CSO	Not visible in the UI	EVT_INV_USAGE.TSO_QT CYCLES: data_type_id = 10	Returns the usage when the transaction occurred (link by event_id)
TSR	Not visible in the UI	TSR = (EVT_INV_USAGE.TSN_QT) minus (last completed work package usage) HOURS: data_type_id = 1	Returns the flight time since the last Work Package with two decimals TSR = TSN minus TSN at the time of the last completed component Work Package to that engine. Last WP against the actual inventory.
CSR	Not visible in the UI	CSR = (EVT_INV_USAGE.TSN_QT) minus (last completed work package usage) CYCLES: data_type_id = 10	Returns the cycles since the last Work Package CSR = TSN minus TSN at the time of the last completed component Work Package to that engine. Last WP against the actual inventory.
SDC	Not visible in the UI	EVT_INV_USAGE.TSN_QT data_type_CD = SDC	Returns the usage when the transaction occurred (link by event_id)

Document Application Transaction Data Set Mapping

Scope for the extracted data

- Transactions related to Rolls-Royce issued publications.
- Filter by 'Issue by' Manufacturer with manufacturer code = 'K0680'
- The report parameter DayRange filter the data using the TransactionCreatedDateTime.

Data Mapping

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
DocumentType	Reference Document Details / Details Tab / Classification Section / Class - Subclass	REF_TASK_CLASS. TASK_ CLASS_CD-REF_TASK_ SUBCLASS.TASK _SUBCLASS_CD	Returns the class code – subclass code.
DocumentNumber	Reference Document Details / Identification Section / Code	TASK_TASK.TASK_CD	
DocumentIssueDate	Reference Document Details / Details Tab / Document Details Section / Issue Date	TASK_REF_DOC.ISSUE _DT	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
DocumentRevision Number	Reference Document Details / Details Tab / Document Details Section / Amendment Number	TASK_REF_DOC. AMEND_REF_SDESC	
DocumentRevisionDate	Reference Document Details / Revision Tab / Revision History Section / Activation Date (for that Amendment Number)	TASK_TASK.REV_DT	Returns the date of the current revision
ApplicableEngineType	Assembly Details / Assembly Identity Section / Assembly Code	EQP_ASSMBL. ASSMBL_CD	Returns the Engine Assembly Code.
PartNumber	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO. PART_NO _OEM	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
SerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.OEM _SERIAL_NO	
ComponentID	Not visible in the UI	INV_INV.ALT_ID	Returns the Inventory ID
PerformedDateTime	(REQ) Task Details/Task Information / Section – Actual End Date	EVT_EVENT.EVENT _DT	Returns the complete date for the Requirement with a COMPLIES link to the Ref Doc. **Date the task was completed, actual end date**
TSN	Not visible in the UI	EVT_INV_USAGE.TSN_QT HOURS: data_type_id = 1	Returns flying hours with two decimals Returns the usage when the transaction occurred (link by event_id)
CSN	Inventory Details / Current Usage Section / TSN (CYCLES)	EVT_INV_USAGE.TSN _QT CYCLES: data_type_id = 10	Returns the usage when the transaction occurred (link by event_id)
SDC	Inventory Details / Current Usage Section / TSN (SDC)	EVT_INV_USAGE.TSN _QT data_type_CD = SDC	Returns the usage when the transaction occurred (link by event_id)

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TransactionCreated DateTime	(REQ) Task Details/ History/ Complete	EVT_STAGE.STAGE _DT	

Engine Rating Change Transaction Data Set Mapping

Scope for the extracted data

- Transactions related to Rolls-Royce manufactured engines
  - Filter by manufacturer code = 'K0680'
- Filter by task_class = MOD
- The report parameter DayRange filter the data using the TransactionCreatedDateTime.

Data Mapping

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
EnginePartNumber	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO.PART_NO _OEM	
EngineSerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.SERIAL_NO_OEM	
EngineID	Not visible in the UI	INV_INV.ALT_ID	Returns the Inventory ID

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
NewRating	Inventory Details / Additional Detail section – Part Name (after the dash)	EQP_PART_NO.PART_NO_SDESC	Returns what is after the dash in the Part Name
PreviousRating	Inventory Details / Additional Detail section – Part Name (after the dash)	EQP_PART_NO.PART_NO_SDESC	Returns the previous rating that was after the dash in the Part Name before the MOD.
TransactionDateTime	(MOD) Task Details/Task Information / Section – Actual End Date	EVT_EVENT.EVENT_DT	Returns the MOD task complete date.
TransactionCreated DateTime	Task Details/ History Tab/ Section – History / Column - Date	EVT_STAGE.STAGE_DT	Returns the MOD task timestamp. Filter by task event_status_cd = COMPLETE
OperatorReference	Requirement Details / Identification Section / Code	TASK_TASK.TASK_CD	Returns the MOD task definition code.

LogBook Data Set Mapping

Scope for the extracted data

- Transactions related to aircraft with Rolls-Royce engines installed
  - Filter by manufacturer code = 'K0680'

- Return all Faults and Flight Disruption found in completed or edited flights with aircraft with Rolls-Royce engines installed
- Return one line for each corrective action added to the Fault. EngineData.io will group them together using the unique identifier (TechnicalLogBookPageId)
- Filter by ATA Chapters 70 – 80, including all chapters under the subassembly of the engine
- The report parameter DayRange filter the data using the Scheduled Departure Date of the flight.

Data mapping

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
TechnicalLogBook PageId	Not visible in the UI	FaultID - SD_FAULT.ALT_ID Disruption Id - FL_LEG_DISRUPT.LEG _DISRUPT_ID	
LogBookDate	(Faults) Task Details / Fault Information Tab / Fault Details Section / Found on Date	EVT_EVENT.ACTUAL_START _DT	If it is a Flight Disruption, will be blank.
Station	Not visible in the UI	INV_LOC.LOC_CD	Returns the flight actual arrival airport. The IATA 3 letter code will be returned.
AircraftSubFleet	Inventory Details/ Forecasting Section/ Forcast Model	FC_MODEL.DESC_SDESC -> INV_AC_REC.FORECAST_ MODEL_ID	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
AircraftRegistration	Inventory Details/ Aircraft Information Section / Registration Code	INV_AC_REG.AC_REG_CD	
AircraftSerialNumber	Inventory Details/ Additional Detail Section – OEM Serial Number	INV_INV.SERIAL_NO_OEM	
ATAChapter	(Faults) Task Details / Inventory	EQP_ASSMBL_BOM.ASSMBL_BOM_CODE	If it is a Flight Disruption, will be blank.
EnginePosition	inventory Details / Sub Inventory Tab / Engine - Position	EQP_ASSMBL_POS.EQP_POS_CD	If it is a Flight Disruption, will be blank.
EnginePartNumber	Inventory Details/ Additional Detail section – OEM Part Number	EQP_PART_NO.PART_NO_OEM	If it is a Flight Disruption, will be blank.
EngineSerialNumber	Inventory Details/ Additional Detail Section – OEM Serial Number	INV_INV.SERIAL_NO_OEM	If it is a Flight Disruption, will be blank.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
EngineID	Not visible in the UI	INV_INV.ALT_ID	Returns the Inventory ID If it is a Flight Disruption, will be blank.
DelayMinutes	Flight Disruption Details / Disruption Details (Section) / Total Delay	FL_LEG.ACTUAL _DEPARTURE_DT minus FL_LEG.SCHED _DEPARTURE_DT	Returns the flight total delay in minutes. If it is a Fault, will be blank.
IssueReport	(Faults) Task Details / Description	Fault: EVT_EVENT.EVENT_LDESC Flight Disruption: FL_LEG_DISRUPT. DISRUPTION _NOTE	Returns the Issue Description for Faults. Returns the Note for Flight Disruption.
DeferralReport	Defer Fault Page / Deferral Reason Section / Notes (Task Details Page / Fault Information Tab / Fault History / DEFER Status note)	Fault: SD_FAULT.DEFER_REF _SDESC	Free text add to the Defer Notes. If it is a Flight Disruption, will be blank.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
CorrectionReport	(Faults) Task Details / Corrective Action	SCHED_ACTION.ACTION_LDESC	Returns the Corrective Action Description If it is a Flight Disruption, will be blank.

Event Data Set Mapping

Scope for the extracted data

- Return all faults found in aircraft with Rolls-Royce engines installed
  - Filter by manufacturer code = 'K0680'
  - Filter by ATA Chapters 70 – 80, including all chapters under the subassembly of the engine
- Return one line for each corrective action added to the Fault. EngineData.io will group them together using the unique identifier (EventID)
- The report parameter DayRange filter the data using the LastUpdateDateTime.

Data Mapping

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
EventID	Not visible in the UI	SCHED_STASK.ALT_ID	
EventType	Task Details Page / Task Information Tab / Routine Boolean	TASK_SCHED.ROUTINE_BOOL	Returns 'Schedule' if a previous task requirement. If Ad hoc, returns 'Unscheduled'
ReferenceEvent	Task Details Page / Fault Information Tab / Fault Details Section / Recurrence of	SCHED_STASK.ALT_ID	Returns when the task or the fault is recurring. If not, will return blank.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
LastUpdateDateTime	Task Details Page / History Tab / History	EVT_EVENT.EVENT_DT	Returns the last date the task was updated.
Station	Not visible in the UI	INV_LOC.LOC_CD	Returns the flight actual arrival airport. The IATA 3 letter code will be returned
AircraftRegistration	Inventory Details / Aircraft Information Section / Registration Code	INV_AC_REG.AC_REG_CD	
AircraftSerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.SERIAL_NO_OEM	
ATAChapter	(Faults) Task Details / Inventory	EQP_ASSMBL_BOM.ASSMBL_BOM_CODE	
EnginePosition	Inventory Details / Sub Inventory Tab / Engine - Position	EQP_ASSMBL_POS.EQP_POS_CD	
EnginePartNumber	Inventory Details / Additional Detail section – OEM Part Number	EQP_PART_NO.PART_NO_OEM	

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
EngineSerialNumber	Inventory Details / Additional Detail section - OEM Serial Number	INV_INV.SERIAL_NO_OEM	Returns the OEM Serial Number for the Parent inventory, at the parent assembly level. If not installed will be blank.
EngineID	Not visible in the UI	INV_INV.ALT_ID	Return the InventoryID for the Parent inventory, at the parent assembly level. If not installed will be blank.
EventDescription	Task Details Page / Task Execution Tab / Description	EVT_EVENT.EVENT_LDESC	Free-text description of the task
OperatingRegime Code	Task Details Page / Fault Information Tab / Fault Details Section / Flight Stage	SD_FAULT.FLIGHT_STAGE _CD	If fault was found during flight, returns the Flight Stage Code. If not will be blank.
CategoryCode	Task Details Page / Fault Information Tab / Resulting Events	REF_RESULT_EVENT. RESULT_EVENT_CD	
LocationCode	Work Package Details Page / Details Tab / Work Location	EVT_LOC.LOC_DB_ID, EVT_LOC.LOC_ID EventID to link to the EVT_LOC	If fault is not in a Work Package, will be blank.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
EventDeferral	Defer Fault Page / Deferral Reason Section / Notes (Task Details Page / Fault Information Tab / Fault History / DEFER Status note)	SD_FAULT.DEFER_REF _SDESC	Free text added to the Defer Notes.
EventAction	(Faults) Task Details / Corrective Action	SCHED_ACTION.ACTION _LDESC	Returns the Corrective Action Description
EventRootCause	(Faults) Task Details / Name	EVT_EVENT.EVENT_SDESC	Returns the task name
OnPartNumber	(Faults) Task Details Page / Task Execution Tab / Part Requirement / Installed Part / Part Number	EQP_PART_NO.PART_ NO_OEM	Returns the Part Number of the LRU installed part. If Part is not LRU (Line Replaceable Unit checked in the Part Group), will be blank.
OnSerialNumber	(Faults) Task Details Page / Task Execution Tab / Part Requirement / Installed Part / Serial Number	INV_INV.SERIAL_NO_OEM	Return the Serial Number of the LRU installed part. If Part is not LRU (Line Replaceable Unit checked in the Part Group), will be blank.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
OnComponentID	Not visible in the UI	INV_INV.ALT_ID	Return the Inventory ID of the LRU installed part. If Part is not LRU (Line Replaceable Unit checked in the Part Group), will be blank.
OffPartNumber	(Faults) Task Details Page / Task Execution Tab / Part Requirement / Removed Part /Part Number	EQP_PART_NO.PART_NO_OEM	Return the Part Number of the LRU removed part. If Part is not LRU (Line Replaceable Unit checked in the Part Group), will be blank.
OffSerialNumber	(Faults) Task Details Page / Task Execution Tab / Part Requirement / Removed Part / Serial Number	INV_INV.SERIAL_NO_OEM	Return the Serial Number of the LRU removed part. If Part is not LRU (Line Replaceable Unit checked in the Part Group), will be blank.
OffComponentID	Not visible in the UI	INV_INV.ALT_ID	Return the Inventory ID of the LRU removed part. If Part is not LRU (Line Replaceable Unit checked in the Part Group), will be blank.

RR Field	IFS Maintenix UI Mapping	IFS Maintenix Database	Notes
OnPartDescription	(Faults) Task Details Page / Task Execution Tab / Part Requirement / Description	EQP_PART_NO.PART_NO_SDESC	Return the Part Description of the LRU installed part. If Part is not LRU (Line Replaceable Unit checked in the Part Group) or not installed, will be blank.
ConsequenceType			N/A
DelayMinutes			N/A
DelayCode			N/A
FlightId			N/A
FlightNumber			N/A
ScheduledDeparture Airport			N/A
ScheduledDeparture DateTime			N/A
ActionLocation			N/A
ActionDateTime			N/A
SymptomTypeCode			N/A
SymptomPrimary Indication			N/A
ReactionTypeCode			N/A
ReactionPrimary Indication			N/A

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.

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