

How to check for completeness

E2 and mandatory attributes

The first step in processing a report is verifying its completeness. While determining which fields are mandatory can be subjective, Regulation 376 specifies that certain attributes are required depending on the type of report submitted.

E2 does not prevent the submission of reports with missing mandatory fields. Instead, it issues a warning to the reporter at the time of submission, indicating which mandatory attributes are missing. The list of unfilled mandatory fields is not visible to the Authority's occurrence officers responsible for processing the reports.

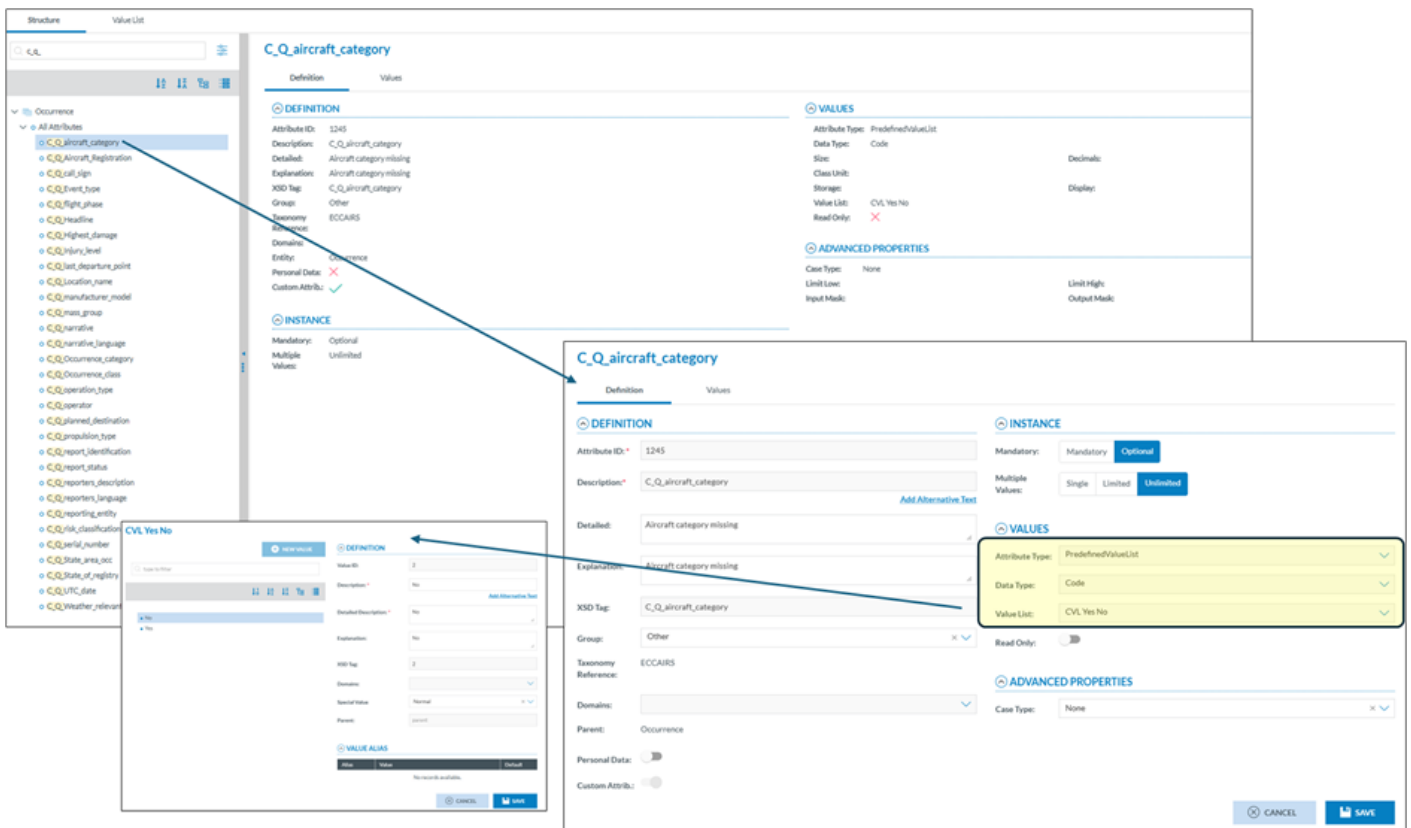
Steps to close the gap

This document outlines how to address this gap by making the missing mandatory fields accessible to occurrence officers. The solution involves five main steps:

1. Extend or create a custom taxonomy
 - o Add custom attributes
 - o Add a custom value list
2. Create the necessary queries
3. Create the necessary batch operations
4. Modify the views
5. Combine the BOs in a Batch Group (optional)

Extend or create a custom taxonomy

For every mandatory attribute that is to be checked on completeness a custom taxonomy attribute is to be created.



All custom attributes must be created under the Occurrence entity

Each custom attribute should be created consistently and linked to a predefined custom value list. If the value list doesn't exist, it must be created before defining the custom taxonomy fields. If a yes/no value list is already available, it can be reused, but note that it will only contain the values "Yes" and "No."

The descriptions should be concise and meaningful, as they will later serve as labels in the view (e.g., "Aircraft category missing").

Once all custom attributes have been created and their descriptions filled out, you can proceed to generate the custom taxonomy. While this process may be tedious, it is crucial to ensure that the custom fields are created carefully.

As a best practice, it is recommended to prefix custom attributes, as shown in the example above (e.g., "C_Q_aircraft_category") which stands for C=Custom and Q=Quality

Create the necessary queries

In this step, all necessary queries to check for attribute completeness are created. Again per attribute that you want to check, a query is to be created.

Name	In BO	Author	Date	To Lobby	Type	
			day-month-year	(All)	All	
Quality Qs						
Q_missing_headline	q_missing_headline	easa.deryce	09-Apr-2025	✓	ECCAIRS	
Q_missing_utc_date	q_missing_utc_date	easa.deryce	09-Apr-2025	✓	ECCAIRS	
Q_missing_state_of_occurrence	q_missing_state_of_occurrence	easa.deryce	09-Apr-2025	✓	ECCAIRS	
Q_missing_location_name	q_missing_location_name	easa.deryce	09-Apr-2025	✓	ECCAIRS	
Q_missing_occurrence_class	q_missing_occurrence_class	easa.deryce	09-Apr-2025	✓	ECCAIRS	
Q_missing_occurrence_category	q_missing_occurrence_category					
Q_missing_highest_damage	q_missing_highest_damage					
Q_missing_injury_level	q_missing_injury_level					
Q_missing_weather_relevant	q_missing_weather_relevant					
Q_missing_event_type	q_missing_event_type					
Q_missing_aircraft_registration	q_missing_aircraft_registration					
Q_missing_state_of_registry	q_missing_state_of_registry					
Q_missing_manufacturer_model	q_missing_manufacturer_model					
Q_missing_serial_number	q_missing_serial_number					
Q_missing_call_sign	q_missing_call_sign					
Q_missing_operator	q_missing_operator	easa.deryce	09-Apr-2025	✓	ECCAIRS	
Q_missing_operation_type	q_missing_operation_type	easa.deryce	09-Apr-2025	✓	ECCAIRS	
Q_missing_aircraft_category	q_missing_aircraft_category	easa.deryce	09-Apr-2025	✓	ECCAIRS	
Q_missing_propulsion_type	q_missing_propulsion_type	easa.deryce	09-Apr-2025	✓	ECCAIRS	

In E2, an attribute only exists if it has a value.

Therefore, using the filter "on does not exist" will return documents where the attribute is not filled out.

Tip: It's good practice to:

- Give your queries meaningful names, ideally with a consistent prefix.
- Store queries in a dedicated library to keep things organized and improve clarity.

Create the necessary batch operations

The custom attributes have been created, the custom taxonomy has been released, and all necessary queries have been set up. The batch operations can be created.

Per attribute that you want to check, 2 batch operations are to be created.

Until the MABO functionality becomes available, you first need to reset (delete) the C_A_XXX attributes. If not done, the BO's may generate an error indicating that the value has already been set. With the MABO, you can indicate what E2 needs to do if a value has already been set.

Resetting the C_A_XX attributes

Per attribute that you want to check, a reset BO is to be created

Batch Operations > Quality Qs
EXECUTION RESULTS
NEW BATCH OPERATION

Name	Enabled	Status	Author	Date
reset	(All)			day-month-year
Quality Qs				
q.reset_missing_headline	✓	Released	easa.derycge	11-Apr-2025 10:46:51
q.reset_missing_risk_classification	✓	Released	easa.derycge	11-Apr-2025 11:28:18
q.reset_missing_reporting_entity	✓	Released	easa.derycge	11-Apr-2025 11:28:24
q.reset_missing_weather_relevant	✓	Released	easa.derycge	11-Apr-2025 11:28:30
q.reset_missing_utc_date	✓			
q.reset_missing_state_of_registry	✓			
q.reset_missing_serial_number	✓			
q.reset_missing_propulsion_type	✓			
q.reset_missing_operation_type	✓			
q.reset_missing_operator	✓			
q.reset_missing_manufacturer_model	✓			
q.reset_missing_location_name	✓			
q.reset_missing_injury_level	✓			
q.reset_missing_highest_damage	✓			
q.reset_missing_aircraft_registration	✓			
q.reset_missing_aircraft_category	✓			
q.reset_missing_mass_group	✓			
q.reset_missing_last_departure_point	✓			

Type: OCCURS
Object Type: Validated Report
Name: q.reset_missing_headline
Library: Quality Qs
Schedule: Manual Continuous
Query: Q.reset_missing_headline
Actions:
Status: Released
Enabled
Email notification
CANCEL
EDIT

Insert the values in the C_A_xx attributes

Per attribute that you want to check, a reset BO is to be created

Batch Operations > Quality Qs
EXECUTION RESULTS
NEW BATCH OPERATION

Name	Enabled	Status	Author	Date
Quality Qs				
q.missing_headline	✓	Released	easa.derycge	09-Apr-2025 10:23:51
q.missing_utc_date	✓	Released	easa.derycge	09-Apr-2025 10:23:53
q.missing_state_of_occurrence	✓	Released	easa.derycge	09-Apr-2025 10:23:55
q.missing_location_name	✓	Released	easa.derycge	09-Apr-2025 10:23:58
q.missing_occurrence_class	✓	Released	easa.derycge	09-Apr-2025 10:24:05
q.missing_occurrence_category	✓	Released	easa.derycge	09-Apr-2025 10:24:00
q.missing_highest_damage	✓	Released	easa.derycge	09-Apr-2025 10:24:02
q.missing_injury_level	✓			
q.missing_weather_relevant	✓			
q.missing_aircraft_registration	✓			
q.missing_aircraft_category	✓			
q.missing_call_sign	✓			
q.missing_flight_phase	✓			
q.missing_last_departure_point	✓			
q.missing_manufacturer_model	✓			
q.missing_mass_group	✓			
q.missing_operation_type	✓			
q.missing_operator	✓			
q.missing_planned_destination	✓			

View Batch Operation
Type: OCCURS
Object Type: Validated Report
Name: q.missing_aircraft_category
Library: Quality Qs
Schedule: Manual Continuous
Query: Q.missing_aircraft_category
Actions:
Status: Released
Enabled
Email notification
CANCEL
EDIT

Here each query is filling in the appropriate custom field

Bear in mind that a new development is currently ongoing (MABA, Multi Action Batch Operation) that will combine all individual BOs into 1 BO.

Modify the views

Rendering the result of the completeness is subjective and depends how the presentation looks like

As a good practice is having separate sections containing the relevant attributes of an entity.

Name ^	Taxonomy	Based on Entity	Published Views	Unpublished Views	
qu					
✓ EASA Forms					
> Common					
Quality section Aircraft	5.1.1.2 (C16)	Occurrence	EASA: Technical Form Part 145	EASA: Technical Form with quality	⋮
Quality section Events	5.1.1.2 (C16)	Occurrence	EASA: Technical Form Part 145	EASA: Technical Form with quality	⋮
Quality section header	5.1.1.2 (C16)	Occurrence	EASA: Technical Form Part 145	EASA: Technical Form with quality	⋮
Quality section Narrative	5.1.1.2 (C16)	Occurrence	EASA: Technical Form Part 145	EASA: Technical Form with quality	⋮
Quality section Occurrence	5.1.1.2 (C16)	Occurrence	EASA: Technical Form Part 145	EASA: Technical Form with quality	⋮
Quality section Reporting history	5.1.1.2 (C16)	Occurrence	EASA: Technical Form Part 145	EASA: Technical Form with quality	⋮

Items per page: 20 Page 1 of 1 (9 items)

Quality section Aircraft

Aircraft category missing:
☐ No
☐ Yes

Last departure point missing:
☐ No
☐ Yes

Operator missing:
☐ No
☐ Yes

State of registry missing:
☐ No
☐ Yes

Aircraft Registration missing:
☐ No
☐ Yes

Manufacturer model missing:
☐ No
☐ Yes

Planned destination missing:
☐ No
☐ Yes

Call sign missing:
☐ No
☐ Yes

Mass group missing:

Flight phase missing:
☐ No
☐ Yes

Operation type missing:

Attribute

Entity: Occurrence

Attribute: C_Q_aircraft_category

Show as: RadioButton

Mode: Definition Only Definition + Value Only Value

Show Desc. as: Explanation

Definition Label: Left Top

Tooltip: 1245 - Aircraft category missing

Value Check: Optional Required

CANCEL SAVE

Here you see how important it is to give the custom taxonomy fields a meaningful and short description. It is here used as labels. Maybe it is also good to show the attributes as radio buttons.

Adding the dedicated sections to existing forms is the same as adding sections in other views

Technical Form

All Sections

Aircraft

Events

Analysis & Follow-up

ERCS (Voluntary)

Completeness check

All Sections

Occurrence

Aircraft

Events

Reporting History

Narrative

Topic Definition

Name: Completeness check

Identifier: Identifier

APPEARANCE

Icon: FullView

Text Pattern: [TN]

PATTERN COMPOSER

TAXONOMY

Based on: Occurrence

Max Instance: Unlimited **Maximum**

At Most: 1

Display Mode: **Tab** List

SECTIONS

Available Sections

PRUEBA KATA y DIEGO-Copy

Quality section Aircraft

Quality section Events

Quality section Narrative

Quality section Occurrence

Quality section Reporting History

RAT

RAT ATM Ground-Copy-Copy

RAT ATM Ground-Copy-Copy

Selected Sections

Quality section header

Read Only

Technical Form

All Sections

Aircraft

Events

Analysis & Follow-up

ERCS (Voluntary)

Completeness check

All Sections

Occurrence

All Sections

Aircraft

Events

Reporting History

Narrative

Topic Definition

Name: Occurrence

Identifier: Identifier

APPEARANCE

Icon: Occurrence

Text Pattern: [TN]

PATTERN COMPOSER

TAXONOMY

Based on: Occurrence

Max Instance: Unlimited **Maximum**

At Most: 1

Display Mode: **Tab** List

SECTIONS

Available Sections

15332

ADREP E24 Dates

ADREP E24 Dates

Air navigation service provider-Copy

Air navigation service provider-Copy

Air navigation service provider-Copy

Air navigation service provider-Copy-Copy

Air navigation service provider-Copy-Copy

Air navigation service provider-Copy-Copy-Copy

Selected Sections

Quality section Occurrence

Read Only

The result may then look like this

Read Mode

Technical Form

Analysis & Follow-up

Completeness check

Occurrence

Aircraft

Events

Reporting History

Narrative

COMPLETENESS CHECK

Completeness check

This section is primarily used to check if the Validates Report which is based on the Original Reports is complete. This doesn't not check for quality of the data entered

Read Mode

Technical Form

- Analysis & Follow-up
- Completeness check
 - Occurrence
 - Aircraft
 - Events
 - Reporting history
 - Narrative

Completeness check

Occurrence

Headline Missing:

☐ No

☒ Yes

UTC Date Missing:

☐ No

☒ Yes

State/Area of Occurrence missing:

☐ No

☒ Yes

Location name missing:

☐ No

☒ Yes

Occurrence Class missing:

☐ No

☒ Yes

Occurrence category missing:

☐ No

☒ Yes

Highest damage missing:

☐ No

☒ Yes

Injury level missing:

☐ No

☐ Yes

Weather relevant missing:

☐ No

☐ Yes

Read Mode

Technical Form

- Analysis & Follow-up
- Completeness check
 - Occurrence
 - Aircraft
 - Events
 - Reporting history
 - Narrative

Completeness check

Reporting history

Report identification missing:

☐ No

☒ Yes

Report status missing:

☐ No

☒ Yes

Reporter's description missing:

☐ No

☒ Yes

C.Q. reporters language:

☐ No

☒ Yes

Reporting entity missing:

☐ No

☐ Yes

Risk classification missing:

☐ No

☒ Yes

Combine the BOs in a Batch Group (optional)

Optionally the BOs can be combined in a BO group. Bar in mind that a BO group can not be started ad-hoc, it is planned, daily, weekly or monthly.
make sure that the reset BO's are run before the missing BO's.

Update Batch Operations Group

Name: DQ Checks

Description: This group is to check for missing mandatory fields. It will first reset and then check again

Schedule: ☒ Daily ☐ Weekly ☐ Monthly ☒ Enabled

Available Batch Operations	Selected Batch Operations
☒ q_missing_aircraft_category ☒ q_missing_aircraft_registration ☒ q_missing_call_sign ☒ q_missing_event_type ☒ q_missing_flight_phase ☒ q_missing_headline ☒ q_missing_highest_damage ☒ q_missing_injury_level ☒ q_missing_last_departure_point ☒ q_missing_location_name	☒ q_reset_missing_aircraft_category ☒ q_reset_missing_aircraft_registration ☒ q_reset_missing_call_sign ☒ q_reset_missing_event_type ☒ q_reset_missing_flight_phase ☒ q_reset_missing_headline

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CANCEL SAVE

