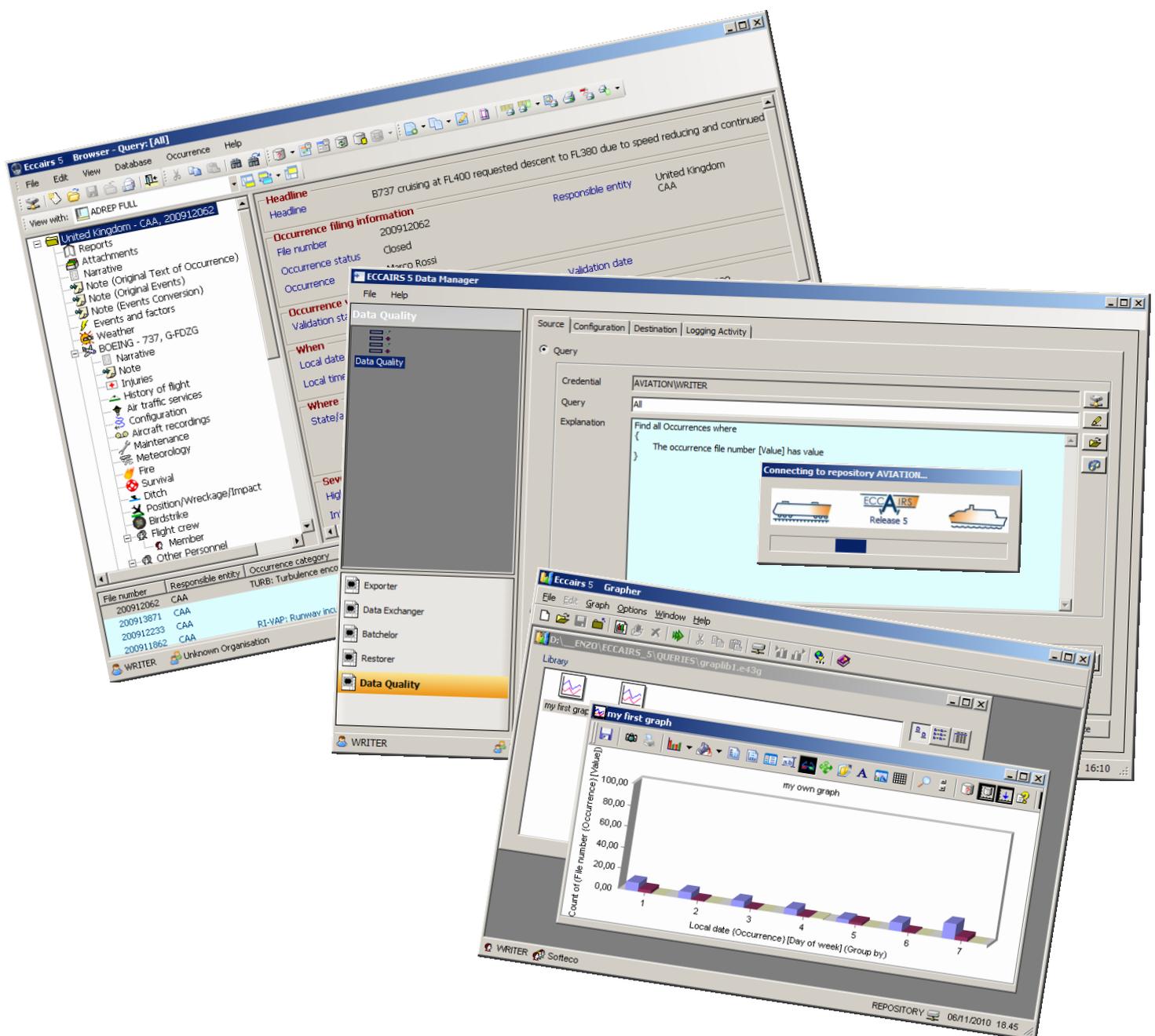


ECCAIRS 5 Reporting System

BROWSER, GRAPHER, DATA MANAGER USER MANUAL



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HOW TO USE THIS MANUAL

This manual is actually documenting three different applications, plus a common tool, at once.

It is organised into the following chapters:

1. **ECCAIRS REPORTING SYSTEM AND APPLICATIONS**
An introduction to ECCAIRS and the ECCAIRS Reporting System.
2. **ECCAIRS BASIC CONCEPTS**
A definition of the objects and concepts used in all the ECCAIRS applications.
3. **START THE REPORTING SYSTEM AND APPLICATIONS**
How to start the applications using the Repository logon phase.
4. **BROWSER**
The application that let you browse and enter Occurrence data (Accident and Incident data).
5. **GRAPHER**
An application to create graphics out of Occurrence data.
6. **DATA MANAGER**
A set of tools to load, save, copy, export, process Occurrences in batch mode.
7. **QUERY BUILDER TOOL**
The tool used by all the Reporting System applications to design and execute Queries on the Occurrences stored in the database.
8. **ATTRIBUTE AND VALUES NAVIGATION AND SPECIFICATION**
The functions used by all the Reporting System applications to enter Attribute Values and to select Attributes and Attribute Values, by navigating and filtering the Taxonomy structure.

As for the manual itself, the main way to navigate through the pages is the Table of Contents (next page in this manual) which guides you as down as to menu-items, User Interface items and functions.

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To help in the "local" navigation of the manual pages, without getting back to the Table of Contents, you can also use the page header, which shows:

- ▶ On the left the main chapter.
- ▶ On the right the chapter 1st level sections, which, for instance, corresponds to menus and other main User interface items.



The manual also uses cross references with target page numbers indicated and formatted in a specific link style for better spotting:

[\(see page 32\)](#)

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1. ECCAIRS REPORTING SYSTEM AND TOOLS

1.1. ECCAIRS AND ITS MISSION

The mission of ECCAIRS is to “assist National and European transport authorities and accident investigation bodies in collecting, sharing and analyzing their safety information in order to improve public transport safety”.

ECCAIRS stands for **E**uropean **C**oordination **C**entre for **A**ccidents and **I**ncident **R**eporting **S**ystems.

Transport Safety

Our world is getting more and more complex. The well-being of an increasingly mobile population depends for a significant part on an economy relying on efficient and safe transport facilities. These factors have led to a rapidly growing inter-modal transport system which the European Commission has described in its White Paper "European transport policy for 2010 : Time to decide". A growing transport system would lead to an increasing number of fatal accidents if no measures are taken. Similarly, our environment would increasingly suffer from pollution caused by accidents on sea, in the air and on the rails. Only by diminishing the so called accident rate the EU will be able to maintain a safe and clean transport infrastructure.

To decrease the rate of fatal commercial air traffic accidents, the European Commission is implementing a regulation on Occurrence reporting in civil aviation which would collect and disseminate information on aviation incidents on a European scale so that we can learn from events and produce a safer transport system.

In individual States, the number of significant Occurrences may not be large enough to give an early indication of a potential serious hazard or to identify trends. Access to a larger database would certainly improve the quality of the safety information.

Accident Prevention through Incident Analysis

Accidents can occur every day, everywhere and involving anybody. What one might not realize is that practically all accidents have been preceded by similar, but non-fatal, incidents that followed a just slightly different scenario. If we understand these precursors we can make a quantum leap forward towards preventing similar accidents from happening.

European effort in prevention

Directive 2003/42/EC on Occurrence Reporting in Civil Aviation obliges Member States to collect and exchange the information about these incidents since July 2005. Analysts in the Member States as well as in the European Institutions will have a multitude of information available that can help them in their tasks on accident prevention.

ECCAIRS Role and future

ECCAIRS helps to cope with the implementation of the legislation. It offers standard and flexible accident and incident data collection, representation, exchange and analysis tools. Following the successful example given in the aviation domain, in the next future ECCAIRS will be applied in a similar way in the other two public transport domains: maritime and railways

1.2. ECCAIRS REPORTING SYSTEM

The ECCAIRS Reporting System allows the EU authorities to collect and exchange information on transport Incidents and Accidents in a standardised way.

More technically, the ECCAIRS Occurrence Reporting System is a set of software applications that provide together a complete solution to organisations that want to collect transport incidents and accidents (Occurrences).

With respect to the previous version ECCAIRS 5 is a Taxonomy independent application, which allows to use it in different transport domains, such as air, sea and rail public transportation.

The Occurrences are the basic data records within the ECCAIRS Reporting System. Occurrences are normally any type of accident or incident related to the transport domain the system is dealing with.

However, since now the ECCAIRS framework is completely detached from the application domain, an Occurrence can be any object which can be described by an ECCAIRS Taxonomy.

Repositories are used to give access to the ECCAIRS Reporting System, using specific Taxonomies, datastore, permissions and customisation.

Occurrences are described using a set of Attributes which are organised in Topics and related Sections.

The same Occurrence can be displayed using different Views.

1.3. ECCAIRS BROWSER

Occurrences are entered, modified, viewed and printed with the ECCAIRS Browser ([see page 27](#)).

Occurrences can be stored locally in an ECCAIRS Occurrence file and can be stored in a relational database when the Browser is connected to a database server.

ECCAIRS also allows storage of independent electronic documents related to Occurrences.

Queries and Query Builder

Which Occurrences will be retrieved, is determined by the User building a Query to select Occurrences from the database or from an Occurrence file. Queries ([see page 17](#)) are built and edited using the Query Builder tool ([see page 257](#)).

Queries can be constructed easily without any knowledge of the used technology (e.g. SQL language). The Query Builder supports the creation of Query Libraries ([see page 18](#)) in which predefined Queries can be stored, exchanged and executed.

Taxonomy

The ECCAIRS system is built upon and implements standard Taxonomies. Up to and inclusive release 4.2.7 the system has been developed for the aviation transport domain, in particular ICAO's ADREP standards. From release 5 onwards the complete ECCAIRS functionality can be exploited on different taxonomies, including, but not limited to, safety taxonomies for the other public transport domains.

Extensibility

In the Windows environment the ECCAIRS Browser functions can be used by other applications and, vice versa, the Browser can make use of custom built extensions that can enhance the functionality and

interoperability of the system. Extensions made for the Browser can be shared between the ECCAIRS User community.

1.4. ECCAIRS GRAPHER

In addition to the Browser application there is also the ECCAIRS Grapher, a graphing tool, which produces easily, quickly and on-line the most common statistical graphs ([see page 113](#)).

Though the Grapher is not a full featured data-analysis tool, this application allows to produce a large range of graphs that can illustrate trends in the Occurrence data.

The User can show the relation between 2 or 3 data fields in various 2D or 3D graphs. Most of the more common graphs can be made in a very simple way. Graphs can be made visible on the screen or printed in a report.

These graphs are created once and can then be applied to any other subset of the local or compatible database. Occurrences in a database can be identified easily with the Query builder, which allows a User to compose Queries based on a combination of criteria using any of the ECCAIRS data fields.

Occurrences, Queries and graphs can be stored in encrypted files that can be easily exchanged with other ECCAIRS Users.

1.5. ECCAIRS DATA MANAGER

The ECCAIRS Data Manager is an application encompassing a powerful set of tools to for the ECCAIRS Reporting System ([see page 155](#)).

The Exporter tool exports subsets the Occurrences in the database in a variety of different formats, respecting the security profiles for the current User as defined in the Repository.

The Batchelor tool makes Batch type of modifications to a set of Occurrences stored in a Repository or Occurrence file.

This Data Exchanger tool includes four separate functionalities: Load from Occurrence file, Save to Occurrence file, Copy Between Repositories, Purge Repository.

The Restorer tool restores identification data on de-identified Occurrence files.

The Data Quality tool performs a quality check on Occurrences either from file or from a Query in the database. The quality is evaluated through a set of Rules stored in Rule Libraries.

1.6. WEBDAS - WEB-BASED VERSION OF THE BROWSER

The Reporting System also includes a web-enabled version of the ECCAIRS Browser : WebDAS (Web Data Access Services). WebDAS also includes the full Query Builder functionality. It covers also ECCAIRS Grapher functionality, with some limits, and that of the Export tool of the ECCAIRS Data Manager application, as for csv-text export format.

This allows storage and retrieval of safety information also from places where the ECCAIRS software cannot be installed.

1.7. OTHER ECCAIRS APPLICATIONS

The ECCAIRS product family is composed of various applications forming together a suite of products allowing organisations to create, maintain and deploy a Repository of accident and incident reports.

There are applications for:

- ▶ **Data entry and retrieval** - applications and services that can be used to enter accident or incident data in an ECCAIRS Repository.
- ▶ **Analysis** - applications and services that contribute to the analysis of the information stored.
- ▶ **Utilities** - handy little applications that perform functions not found in the standard software and useful for end-Users of the system.
- ▶ **System Tools** - applications and services facilitating maintenance of the ECCAIRS system.
- ▶ **Data integration** - applications and services required to perform integration of data at national and/or European level.
- ▶ **Data dissemination** - applications and services performing the dissemination of data at organisational, national and/or European level.

There are specific manuals, help files and documentation available for each of the applications.

2. ECCAIRS BASIC CONCEPTS

Here are a few basic concepts used in ECCAIRS:

- ▶ **Occurrence**
- ▶ **Topics, Sections, Attributes and Views**
- ▶ **Taxonomy**
- ▶ **Entities**
- ▶ **Repository**
- ▶ **Query**
- ▶ **Query Library**
- ▶ **Query Category**
- ▶ **Occurrence File**

2.1. OCCURRENCE

The Occurrences are the basic data records within the ECCAIRS Reporting System.

Occurrences are normally any type of accident or incident related to the transport domain the system is dealing with.

However, since now the ECCAIRS framework is completely detached from the application domain, an Occurrence can be any object which can be described by an ECCAIRS Taxonomy.

Occurrences are described using a set of Attributes which are organised in Topics and related Sections.

The same Occurrence can be displayed using different Views.

ECCAIRS Occurrences can be stored both in ECCAIRS databases and in Occurrence files.

Occurrences are retrieved from the database through Queries built by the Users. Queries can be formulated easily without any knowledge of the IT technology actually used (e.g. SQL language).

Repositories are used to give access to the ECCAIRS Reporting System, using specific Taxonomies, datastore, permissions and customisation.

2.2. ATTRIBUTES

ECCAIRS data is collected in hundreds of different Attributes. The values of these Attributes are stored in the database specified by the ECCAIRS Repository the User is connected to. According to the type of Attribute defined in the Taxonomy, the values that it can assume may be manually entered or chosen for a list of predefined values.

Independently on the underlying coding of Attributes and Values, the ECCAIRS Reporting System always allow the User to see corresponding textual descriptions and explanations.

2.3. SECTIONS

For visualisation and editing purposes, Attributes are grouped together in Sections. For instance, in the air safety application domain and with ADREP Taxonomy, the two Attributes "Latitude" and "Longitude" of the place an Occurrence took place are grouped together in the "Where" Section .

2.4. TOPICS

For navigation purposes Sections can be grouped together in Topics.

In fact some Attributes may be seen as direct properties of the Occurrence (like the 'Date' the Occurrence took place), others instead can be grouped under specific aspects of the Occurrence, which are called Topics.

A Topic can be for instance the Aircraft involved in the accident/incident, within the air safety application domain. In this case the "Model" of the aircraft is an Attribute of the "Aircraft" Topic.

An Occurrence may allow for multiple instances of specific Topics, for instance, again within air safety application domain, there might be more than one aircraft Topic involved in an Occurrence.

All Topics together can form a hierarchical tree by which the User can identify the place to look for particular information.

2.5. VIEWS

Views are grouping of Topics placed in a particular sequence (hierarchical tree).

The specific Views available depends on the specific Repository you are connected to, but also on your User Role and, possibly, to specific conditions during the Occurrence data entry.

It is important to understand that Views and Topics only change the way the data becomes visible.

Occurrences created in any View, can be looked at in any other View, since the Attributes that contain the information are always shared.

2.6. TAXONOMY

The Taxonomy of ECCAIRS is the catalogue of information describing what information can be stored in the ECCAIRS Repository and how this information is (possibly) encoded in the data fields.

Each incident-accident item in ECCAIRS is called Occurrence.

The Taxonomy of an Occurrence is built from Entities and related Attributes.

Entities

Entities are used to represent items to which a set of Attributes can be associated. An Entity can be, for instance, the "aircraft", "ship", etc involved in the incident-accident, or the related "events" description.

There may be multiple instances of Entities, since more than one of these items can be involved.

Also each Entity may have child Entities: for instance "engine" child Entity(ies) of the "aircraft" Entity.

Attributes

Attributes describe properties/values associated to each Entity. An Attribute of the aircraft " Entity is, for instance, its "manufacturer/model".

Most of the Attributes contain actually numbers that represent textual descriptions.

In ECCAIRS however the User never sees the numbers but instead sees the descriptions.

This approach facilitates the implementation of nationalised or customised versions, increases the consistency of the data and reduces the storage requirements.

The ECCAIRS Dictionary is the implementation of the Taxonomy into a usable component for the ECCAIRS information system

The ECCAIRS Taxonomy Browser application and Dictionary Viewer Web tool can be used to get a quick and complete view of the Taxonomy used by ECCAIRS, i.e. all Entities and Attributes available.

2.7. REPOSITORY

The Repository is a place where the manager of an ECCAIRS information system stores and manages centrally not only all the data but also all User specific settings related to security, access methods, database and application properties.

When a User establishes a connection to a Repository the working environment and the User privileges, as set by the Repository administrator in the Repository Manager application, are transferred to the User's desktop. Only then he/she is able to access the database in the Repository. This implies that User specific settings can be managed centrally and are applied anywhere from which the User makes the connection. The Repository contains a number of Profiles which as required can be associated to one or more Roles. Profiles determine the behaviour of the system in a specific area.

A User must be given a Role (only one).

It is possible to have a Repository without a Database. In such a case the connected User can still access Occurrences in an .E5F file applying the settings as defined for the specific Repository but will not be able to access a database (for this Repository).

The connection to a Repository also determines the Taxonomy that is used to describe the Occurrences.

2.8. QUERY

Occurrences are retrieved from the database through queries built by the Users. Queries can be formulated easily without any knowledge of the IT technology actually used (e.g. SQL language).

Queries can be stored in Query Libraries, exchanged with other Users and re-executed any time. Users have complete freedom in defining their Queries. The Query can involve any Attribute which is part of the current Taxonomy.

The basic building block of a Query is a Criterion. A Criterion is a requirement for a particular Attribute.

Any of the Attributes can be used to build a Criterion.

You can combine logically several Criteria using the AND and OR operators.

If necessary you can use brackets to indicate grouping.

```
{
  The amount of cloud {Occurrence} [Value] equal to 'Overcast'
  AND
  Visibility {Occurrence} [Value] less than '100'
}
```

You can also build Parametric Queries: i.e. the comparison value(s) of the Attribute are not defined at Query design time but rather at run-time.

When you execute the Query you are prompted to provide the actual value(s) of the Attribute for the particular execution of the parameter Query.

```
{
  Injury severity level {Occurrence} [Value] equal to (Value to Ask)
}
```

2.9. QUERY LIBRARY AND CATEGORIES

ECCAIRS Queries are organised and stored in Libraries, which can contain an unlimited number of Queries. Within the Browser, a Query can only be defined within a Query Library.

Stand-alone Queries (i.e. not within Query Libraries) can instead exist within other applications (e.g. ECCAIRS Data Manager).

Queries are listed in the Query Library panel of the Query Builder dialog window.

Queries can be added, edited and deleted from the Library.

Query Libraries allow a better User management of Queries, e.g. Users can group Queries of a specific type in Libraries so that they can easily be retrieved for specific purposes.

Query Libraries can be created, opened, closed and saved with User-specified names.

Libraries are saved in ECCAIRS Query Library format (*.eql).

Hence Query Libraries also provide an easy mean to exchange Queries between Users and organisations, since Libraries are stored in files which can be easily sent and copied across.

Query Category

You can create Categories inside a Query Library and assign Queries to them.

Inside a Query Library you can logically organise Queries in Categories.

These may be considered as folders within the Query Library.

There are no constraints brought by assigning Queries to different Categories. It is simply a question of cataloguing Queries to gain more order, in case.

2.10. OCCURRENCE FILES

ECCAIRS Occurrences can be stored both in ECCAIRS databases and in Occurrence files. Occurrence files have a (*.e5f) file extension and contain any number of ECCAIRS 5 Occurrences in an encoded format.

Occurrences usually have a size between 50 and 200Kbytes, so that a file of 1000 Occurrences might take up as an average 100 Mbytes of disk space.

The number of Occurrences in an Occurrence file is limited only by the capacity of your workstation but for practical reasons (performance and maintainability) it is suggested to limit the amount of Occurrences in an Occurrence file to approximately 1000 Occurrences.

To do so you may wish to create Occurrence files that cover a specific time frame like a year or a month.

Opening an Occurrence file requires parsing of its content. For large Occurrence files parsing can take some time. A progress bar is always displayed to inform the User on the loading status.

3. START THE APPLICATIONS - LOGGIN ON

3.1. LOGGING ON THE REPOSITORY

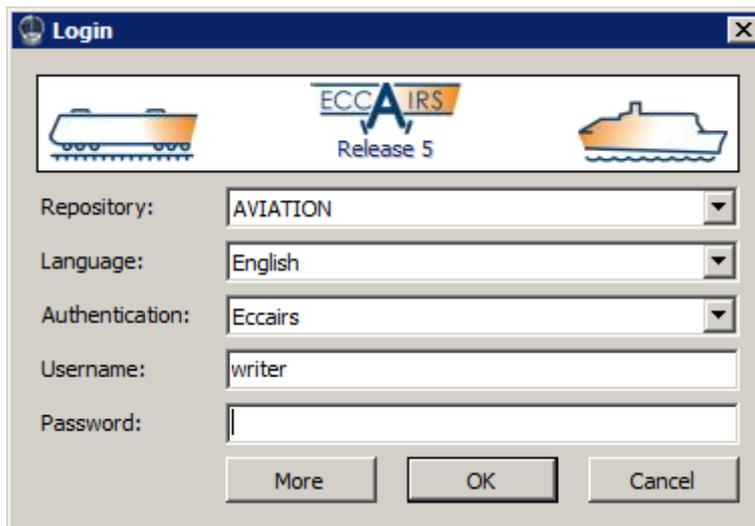
All the applications of the ECCAIRS Reporting System we are dealing with are started with the same Repository login sequence.

The ECCAIRS applications can run only after a successful installation (either Client or Server installation) and after the configuration of Repositories, Roles and Users on an ECCAIRS Server. These steps are usually performed by the designated ECCAIRS System Administrator. Refer to the ECCAIRS Software Installation and Configuration manual for details.

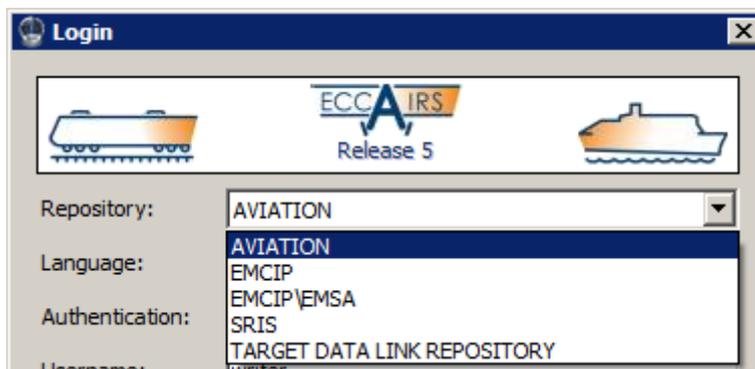
To start the application:

- ▶ **Browser** - select "**START > Programs > ECCAIRS 5 > Browser**" from the Windows start menu.
- ▶ **Grapher** - select "**START > Programs > ECCAIRS 5 > Grapher**" from the Windows start menu.
- ▶ **Data Manager** - select "**START > Programs > ECCAIRS 5 > Data Manager**" from the Windows start menu.

The ECCAIRS Reporting System proposes a Login window.



The User must logon using the **Username** and the **Password** that have been setup by the ECCAIRS System Administrator, possibly choosing among the list of different Repositories configured.



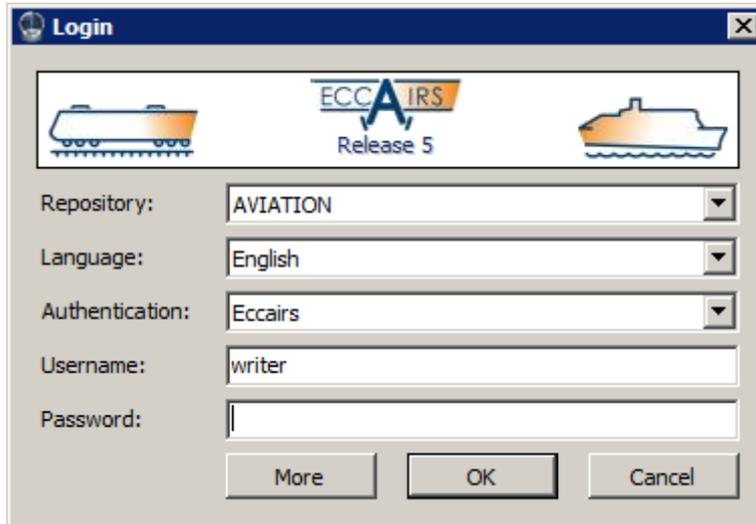
If the list of Repositories is empty, then the User cannot logon until at least one (or more) link to Repositories has been configured.

3.2. FINDING / CONFIGURING A REPOSITORY

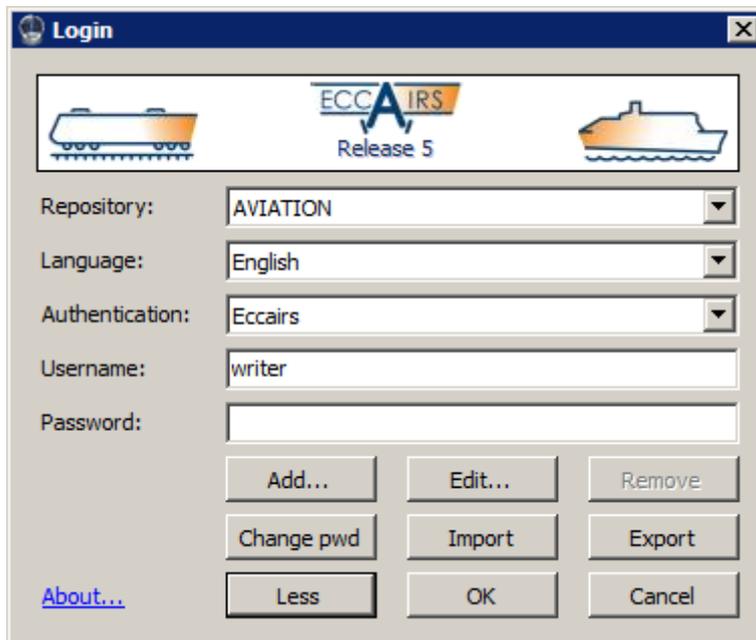
To be able to use a Repository, the ECCAIRS application must establish a link between the workstation and the Repository Server.

If in the Login dialog the Repository you need is not yet listed in the "Repository" drop-down list, then you have to add a link to that Repository.

To add a Repository reference start the application and click the **"More"** button of the "Login" dialog.

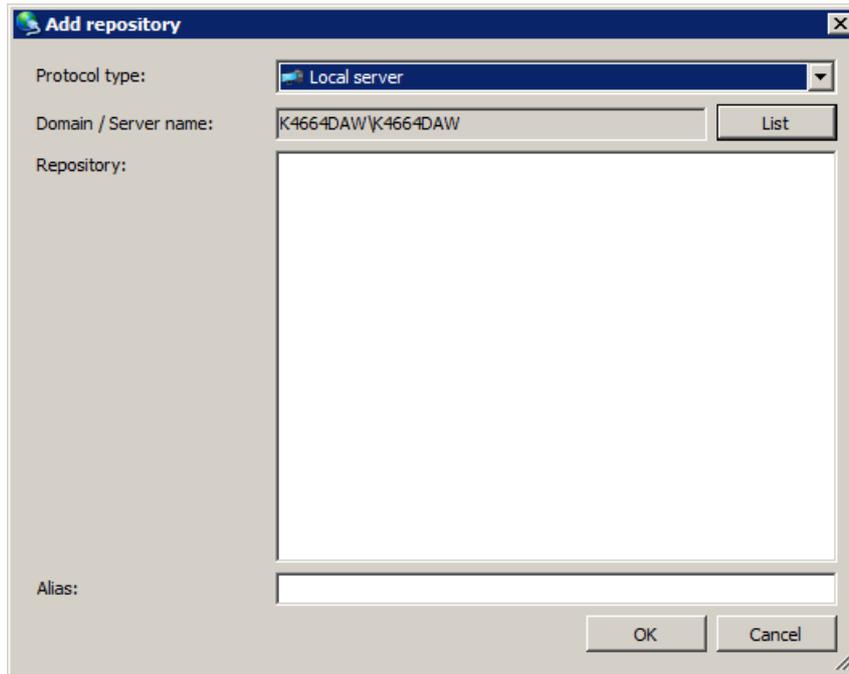


New buttons are displayed at the bottom of the dialog.



Click the **"Add..."** button.

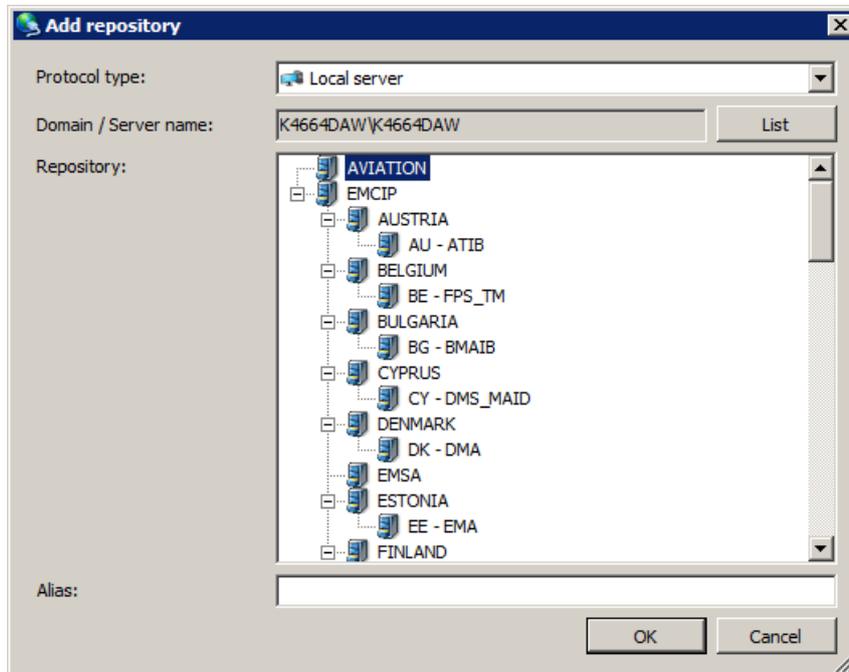
An "Add Repository" dialog box requires the name of an ECCAIRS Repository Server.



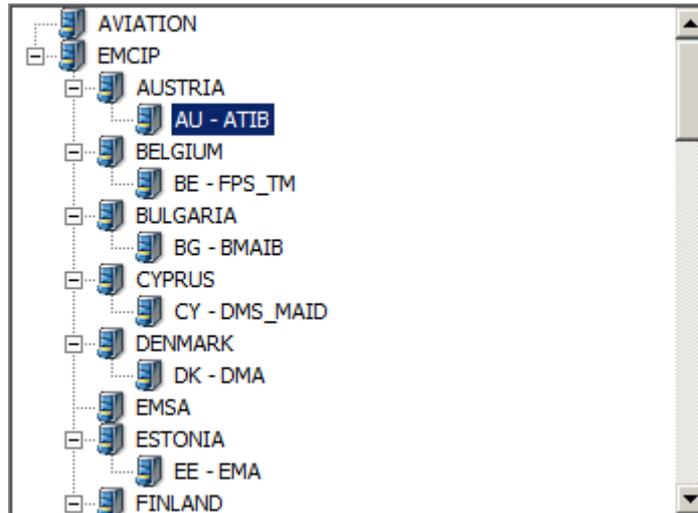
You first have to select the "Protocol type" and "Server name" to use to connect to the suitable ECCAIRS Server and then you can select to which of its Repositories you wish to connect to.

Dialog items:

- ▶ **Protocol type** - (drop-down list) click here to see which protocols you can use to connect.
- ▶ **Domain/ Server name** - (display box, read-only) click here to see how to enter the Domain/Server name.
- ▶ **List** - (button) once you have connected to the ECCAIRS Server, click this button to display the list of the Repositories defined in that Server in the "Repository" tree-selection box below.



- ▶ **Repository** - (tree-selection box) you have to select the Repository among those listed in the box. Repositories may have Sub-Repositories defined, so they are displayed as a tree with nodes (Repository nodes) that you can expand in child nodes (Sub-Repositories).



- ▶ **Alias** - an 'Alias' can be used to personalize the Repository name. The use of an alias becomes mandatory if you are referencing a Repository on a Server, but you already have a reference to a Repository with the same name but hosted on another Server.

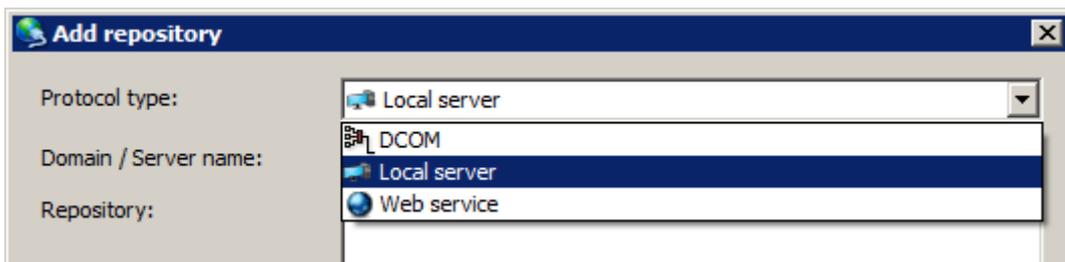
Click:

- ▶ **OK** - to confirm.
- ▶ **Cancel** - to discard the selections made.

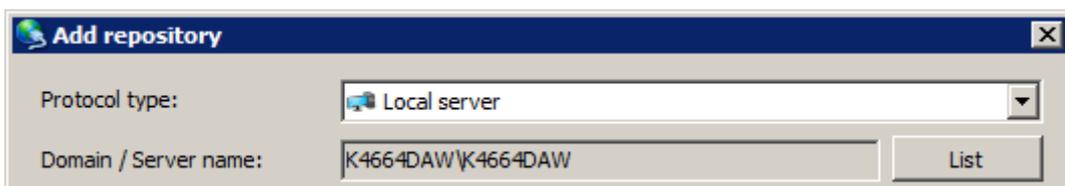
The "Login" dialog is displayed again: this time the newly added Repository is available in the Repository drop-down list.

3.2.1. REPOSITORY CONNECTION PROTOCOLS

You select the connection protocol and its settings through the "Protocol type" drop-down list: items:



- ▶ **Local Server** - this is the most straightforward connection type and connects to the Repository Server running on the same computer from which you are connecting, i.e. you are currently running the Browser on the ECCAIRS Server computer. There are no further settings needed: the local computer name is automatically displayed in the "Domain/Server name" field.

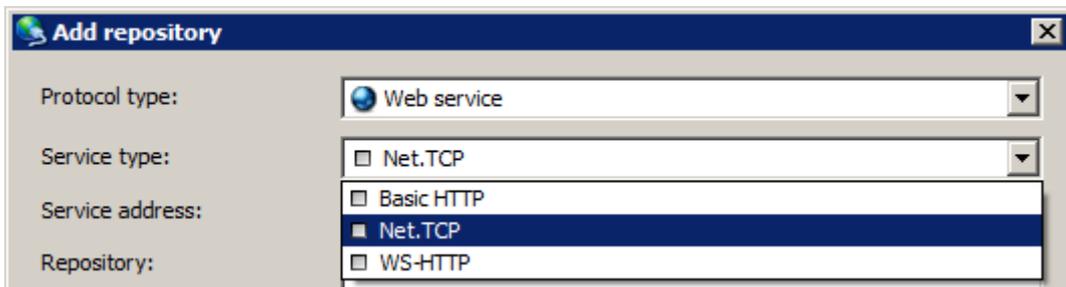


- ▶ **DCOM** - this is a protocol which can be used over the LAN, the local network, to access a Repository on an ECCAIRS Server in another computer. The ECCAIRS System Administrator must make suitable settings on the computer running the ECCAIRS Server for DCOM to work. Specify the Server name in the "Domain/Server name" field. You can also click the "Browse" button and browse the network for DCOM connected ECCAIRS Servers.

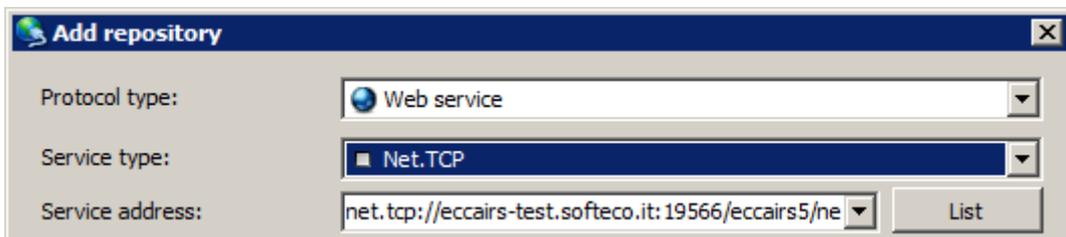


Enter the network password, which is the one defined for the E5Administrator user when installing and configuring the ECCAIRS Server you are connecting to.

- ▶ **Web service** - this set of protocols allows to access Repository Servers both in the local network and over Internet. The ECCAIRS System Administrator must make suitable settings on the computer running the ECCAIRS Server for Web Services to work. In the "Service Type" drop-down list that shows up just below you can select Net.TCP, Basic HTTP and WS HTTP protocols.

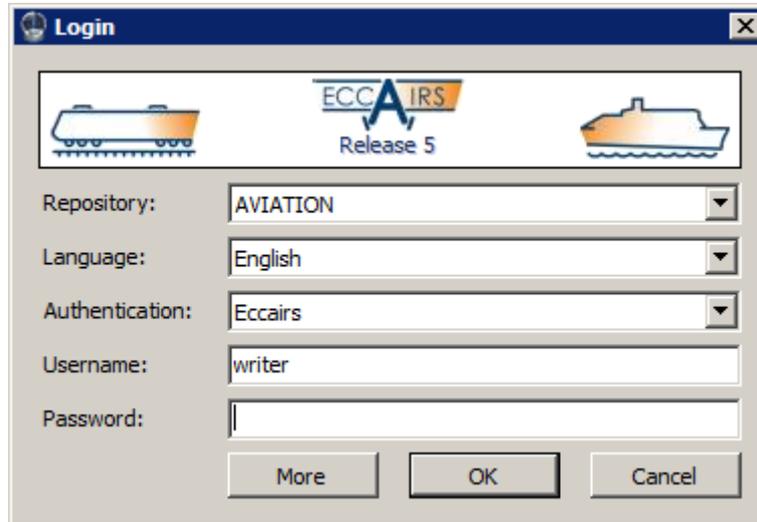


The service type and service address have to be filled with the information provided by the ECCAIRS System Administrator based on the specific ECCAIRS Server configurations set for Windows Services.

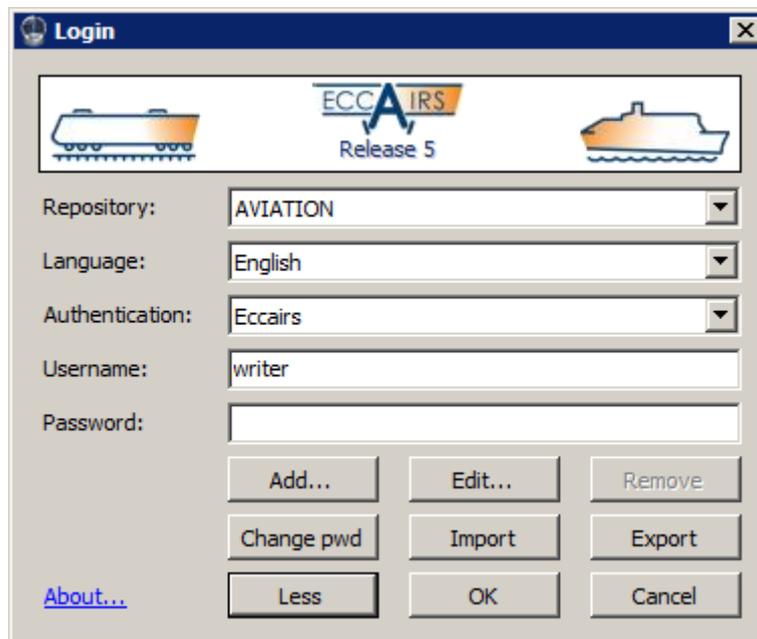


3.3. CHANGING THE LOGON PASSWORD

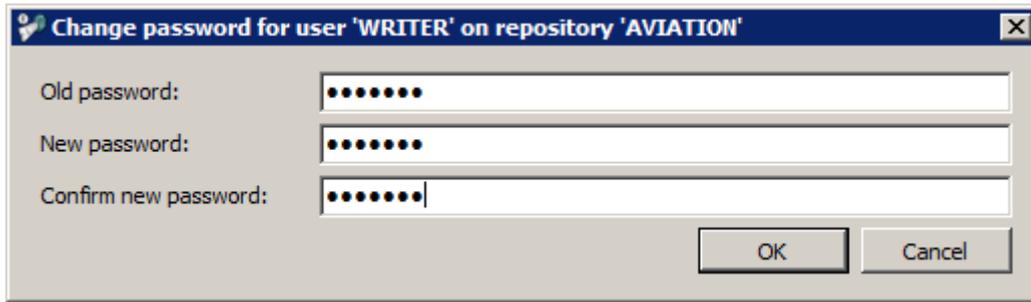
To change the User Login password click the **"More"** button in the Login form. provided this function has been enabled for this User by the ECCAIRS System Administrator



New buttons are displayed at the bottom of the dialog.



Click the **"Change Pwd"** button.



In the "Change Password for User" dialog which shows up, type in the corresponding text boxes first the "Old password", then the "New password" and repeat it in the "Confirm new password" box.

Click:

- ▶ **OK** - to confirm.
- ▶ **Cancel** - to discard the changes.

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4. BROWSER

4.1. USING THE BROWSER

The Browser application is a key component of the ECCAIRS Reporting System.

The ECCAIRS Browser let you collect, store and retrieve information from a database and/or an ECCAIRS data format file.

It is a customisable frontend to an ECCAIRS Repository and it allows very simple as well as complex 'views' on the data stored in the database and/or in an ECCAIRS data format file.

Before using the Browser you may need to read about the basics of ECCAIRS and ECCAIRS Occurrences:

- ▶ ECCAIRS ([see page 11](#)).
- ▶ ECCAIRS Reporting System ([see page 12](#)).
- ▶ Basic concepts and items used in the Reporting Systems ([see page 15](#)).

4.1.1. BROWSER LAYOUT, MENUS AND TOOLBARS

You can then explore the Browser through its layout, menus and toolbars:

- ▶ Starting the Browser ([see page 19](#)).
- ▶ The Browser Main window ([see page 30](#)).
- ▶ The Toolbars ([see page 31](#)).
- ▶ File menu ([see page 40](#)).
- ▶ Edit menu ([see page 50](#)).
- ▶ View menu ([see page 52](#)).
- ▶ Database menu ([see page 76](#)).
- ▶ Occurrence menu ([see page 84](#)).
- ▶ Help Menu ([see page 94](#)).
- ▶ The Occurrence Edit Window ([see page 95](#)).

You can also explore the Browser through its functions ([see next section](#)).

4.1.2. BROWSER USAGE BY FUNCTIONS

4.1.2.1. WORKING WITH OCCURRENCE FILES

You can perform the following functions with the Occurrence Files:

- ▶ What are Occurrence Files (*.e5f) ? ([see page 18](#)).
- ▶ Create a New Occurrence File ([see page 42](#)).
- ▶ Open and Close Occurrence Files ([see page 42](#)).
- ▶ Delete Occurrences ([see page 87](#)).
- ▶ Restore deleted Occurrences ([see page 45](#)).
- ▶ Save Occurrence Files ([see page 42](#)).
- ▶ Save De-identified Occurrences ([see page 44](#)).
- ▶ Send Occurrences as E-Mail ([see page 44](#)).
- ▶ Filter the Occurrences form a file using Queries ([see page 43](#)).

You can run most of these functions from the "File" menu ([see page 40](#)).

4.1.2.2. WORKING WITH DATABASES

You can perform the following functions with Occurrences within Databases:

- ▶ Connect to a Database ([see page 41](#)).
- ▶ Lock and Release Occurrences ([see page 87](#)).
- ▶ Import Occurrences into the database ("File > Send to") ([see page 42](#)).
- ▶ Build, select and execute Queries to select the Occurrences to display and work with ([see page 76](#)).
- ▶ Query by Date ([see page 77](#)).
- ▶ Query by Example ([see page 79](#)).
- ▶ Query Refresh ([see page 79](#)).
- ▶ Show Current Query ([see page 80](#)).
- ▶ Query Batches ([see page 80](#)).
- ▶ Re-execute the last used Queries ([see page 83](#)).
- ▶ Set User Properties which can be used in Queries ([see page 41](#)).

You can run most of these functions from the "Database" menu ([see page 76](#)).

4.1.2.3. OCCURRENCE LISTS

You can perform the following functions on the list of Occurrences in the "Occurrence List" pane:

- ▶ Select and Filter Occurrences ([see page 38](#)).
- ▶ Search for Occurrences ([see page 51](#)).
- ▶ Save Selected Occurrences ([see page 44](#)).

- ▶ Send Occurrences as E-Mail ([see page 44](#)).
- ▶ Print Lists of Occurrences ([see page 48](#)).
- ▶ Display File or Query Occurrence List ([see page 55](#)).
- ▶ Detach "Occurrence List" panel ([see page 54](#)).
- ▶ Delete Occurrences ([see page 87](#)).
- ▶ Restore deleted Occurrences ([see page 45](#)).

You can run most of these functions from the "Right-click" contextual menu within the "Occurrence List" panel ([see page 38](#)).

4.1.2.4. EDITING OCCURRENCES

You can perform the following functions to edit Occurrences:

- ▶ Create New Occurrences ([see page 85](#)).
- ▶ Get to know the Occurrence Edit window ([see page 95](#)).
- ▶ Add Topics ([see page 106](#)).
- ▶ Specify Attributes ([see page 301](#)).
- ▶ Modify Occurrences ([see page 86](#)).
- ▶ Take an Occurrence Window Snapshot ([see page 56](#)).
- ▶ Duplicate Occurrences ([see page 86](#)).
- ▶ Add Attachments ([see page 97](#)).
- ▶ Delete Occurrences ([see page 87](#)).
- ▶ Restore deleted Occurrences ([see page 45](#)).

You can run most of these functions from the "Occurrence" menu ([see page 84](#)).

4.1.2.5. PRINTING OCCURRENCES

The printing-related functions in ECCAIRS Browser are:

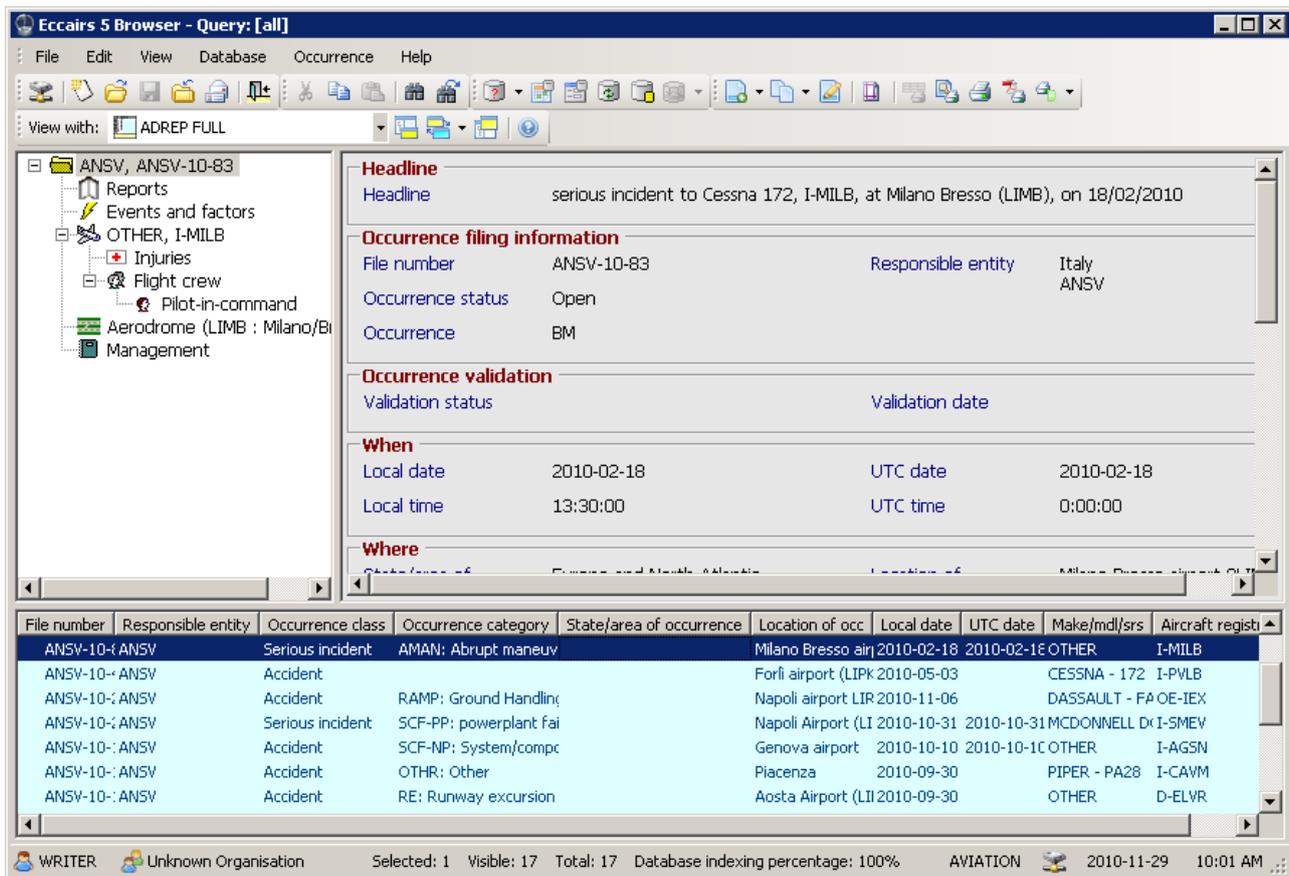
- ▶ Print Lists of Occurrences ([see page 48](#)).
- ▶ Print Occurrences ([see page 90](#)).
- ▶ Preview Occurrence Printouts ([see page 88](#)).
- ▶ Print as PDF ([see page 92](#)).
- ▶ Set print page options ([see page 47](#)).
- ▶ Generate a document with Occurrence data using templates ([see page 92](#)).

4.1.2.6. SETTING OPTIONS

The place where you can set options in the Browser:

- ▶ Set the Browser Options ([see page 57](#)).

4.2. BROWSER MAIN WINDOW



The ECCAIRS Browser Main window is made up by 2 main panels and 3 bars:

- ▶ **Menu bar** - which hosts menus to access the Browser functions.
- ▶ **Toolbar** - a set of thematic Toolbars for a quick access to the some of the functions.
- ▶ **"Information" panel** - a one/two panel area showing the Occurrence data.
- ▶ **"Occurrence List" panel** - displays a list of either the results of a Query to the database or the contents of an ECCAIRS Occurrence file. There is also a "Occurrence List" Right-click menu.
- ▶ **Status bar** - placed at the bottom, it displays general information.

When the Browser starts the "Occurrence List" is empty and will be populated when you either open an existing Occurrence file ("File > Open" menu item) or execute a Query on the Repository database ("Database > Build Query" or "Database > Re-execute Last Queries" menu-items).

The Occurrence List may be already populated by the result of the execution of a "default" pre-defined automatic Query, if the "Automatic Query" feature is enabled in the Repository Profile of the User/Role you are logged in. You can also set and modify the "Automatic Query" with the Browser's own "View > Options > Automatic > Query" menu-item, if this option is allowed for the User/Role you are logged in.

4.2.1. MENU BAR

The Menu bar includes different menus to access the Browser functions:



- ▶ **File menu** ([see page 40](#)).
- ▶ **Edit menu** ([see page 50](#)).
- ▶ **View menu** ([see page 52](#)).
- ▶ **Database menu** ([see page 76](#)).
- ▶ **Occurrence menu** ([see page 84](#)).
- ▶ **Add-Ins menu** ([see page 93](#)) - displayed only if Add-Ins are configured in User menu.
- ▶ **Help menu** ([see page 94](#)).

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.2.2. TOOLBAR

The Toolbar offers a quick visual access to a set of commonly used functions in ECCAIRS Browser.



The Toolbar is made up by a customisable set of task-specific Toolbars:

- ▶ **File Toolbar** - icon-buttons performing the same functions of the "File" menu-items.



- ▶ **Edit Toolbar** - icon-buttons performing the same functions of the "Edit" menu-items.



- ▶ **Database Toolbar** - icon-buttons performing the same functions of the "Database" menu-items.



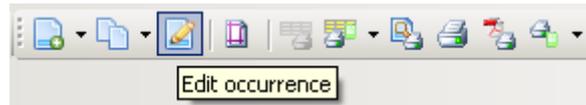
- ▶ **Occurrence Toolbar** - icon-buttons performing the same functions of the "Occurrence" menu-items.



- ▶ **View Toolbar** - icon-buttons performing the same functions of the "View" menu-items.



Stopping the mouse pointer (no clicking !) over the Toolbar icon-buttons causes the display of a Tooltip, i.e. a brief description of the actions-functions associated.



The toolbars completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

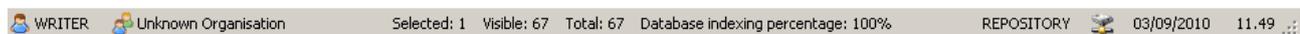
Choose the Toolbars to display

Using the "View > Toolbars" submenu-items you can toggle visible (default) or invisible each of the five Toolbars.

4.2.3. STATUS BAR

The Status bar displays:

- ▶ the current User.
- ▶ the current Organisation.
- ▶ the number of (a) selected, (b) visible and (c) total Occurrences in the "Occurrence List" panel.
- ▶ the percentage of database indexing - when the database index is being rebuilt you will see this number increasing. If the database indexing percentage is not 100% then the result of a Query may be incomplete.
- ▶ the current Repository name.
- ▶ the connection status to the database.
- ▶ the current time and date.



Occurrence List batches

In case more Occurrences should result from the Query then the batch size specified in the Repository you are logged in, you also find the current batch number of resulting Occurrences displayed in the "Occurrence List" pane.

The "Database > Go to batch" menu-item ([see page 80](#)) let you navigate among batches and gives more details and options.

4.2.4. INFORMATION PANEL

The "Information panel" is the area where you can view the content of the Occurrence currently selected in the "Occurrence List" panel ([see page 36](#)).



The panel is most of the times divided into two:

- ▶ **Topic-tree** - (sub-panel) the leftmost part.
- ▶ **Topic-data** - (sub-panel) the rightmost part.

This compound Topic-tree & Topic-data panel rendering is the most commonly used.

Some specific Views can instead use a simplified structure where all the information is condensed in a single Topic.

The Attributes, always grouped in Sections, are shown in a single pane. An example is the "ADREP preliminary view" in the ADREP aviation safety Taxonomy.

"Topic-tree" sub-panel

The right panel shows the Occurrence Topics arranged in a tree structure. When you select a Topic in the tree the corresponding data is displayed in the "Topic-data" sub-panel on the left.

In Views working on a single Topic the "Topic-tree" sub-panel is not displayed.

By default only non-empty Topics are displayed (i.e. containing any information).

If you select the "View > Options > Show all topics in a tree" menu-item then all the Topics are displayed in the Topic-tree left pane.

There may be more than one Topic instance needed for an Occurrence: indeed this is a quite common situation.

For instance, in the transport safety application domain, multiple instances of a Topic are used to host information on each of the aircrafts/ships/trains involved in the same Occurrence.

"Topic-data" sub-panel

By clicking on the left-panel icons (the tree nodes), the specific Topic is opened and the related information, i.e. Attributes labels (names) and corresponding Values, is displayed. Attributes labels and Values in a Topic are always organised in Sections. Each Section is often distinguished visually in the panel.

In the example shown above the Sections are surrounded by a bounding box with a Section name marked in red close to the upper left corner.

Displaying information on Attributes and Values

To display the coding, definition and description of either an Attribute or its current Value just stop the mouse pointer over the Attribute or Value.

The screenshot shows a browser window with a 'Severity' section. The section contains the following data:

Highest Damage	Substantial	Damage aerodrome
Injury level	None	Object damaged
Third party damage	Yes - by rotor / propeller wash Yes - by fire	

Below the 'Severity' section is a 'Classification' section with the following data:

Occurrence class	Incident
------------------	----------

A tooltip is displayed over the 'Third party damage' value, containing the following information:

456 - Third party damage
Any property damage sustained by third parties, i.e. not to the aircraft involved, on the ground. It also captures the main source of the damage.

- Yes - by rotor / propeller wash / jet blast
- Yes - by fire

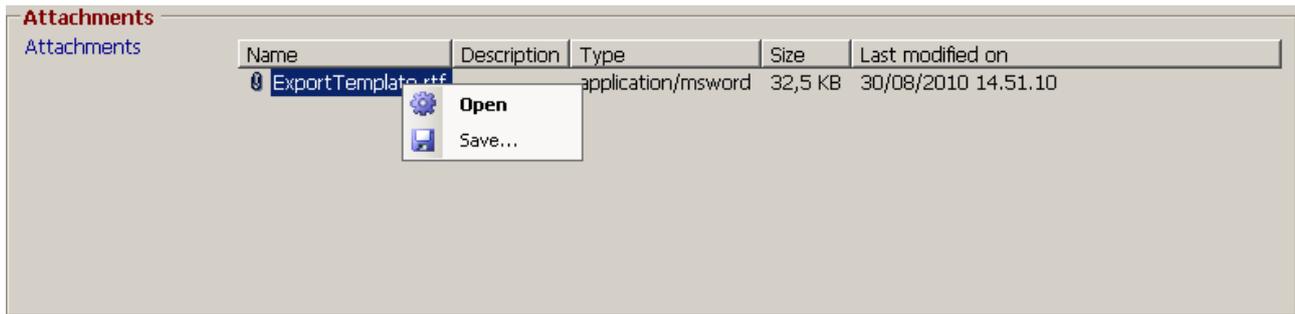
4.2.5. DISPLAY ATTACHMENTS

An Occurrence may have any sort of documents attached. Attachments are handled as Attributes, and may be used within any Section of any Topic. However the Section which includes Attachments uses some specific layout to manage them.

The screenshot shows a browser window with a tree view on the left and an 'Attachments' table on the right. The tree view shows a hierarchy of sections, including 'United Kingdom - CAA, 200912', 'Narrative (English)', 'Note (Original Text of Occur)', 'Note (Original Events)', 'Note (Events Conversion)', 'Events and factors', 'Weather', 'BOEING - 737, G-DOCE', 'History of flight', 'Air traffic services', 'ZZ-UNKNOWN', 'History of flight', 'Air traffic services', 'Aerodrome (Italy - LIMJ) (GO)', 'Airspace', 'ATS Unit (ATC - Foreign)', 'Separation', and 'Management'. The 'Attachments' table has the following data:

Name	Description	Type	Size	Last modified on
ExportTemplate.rtf		application/msword	32,5 KB	30/08/2010 14:51:10

The Section including Attachments has is displayed with a panel that lists all the Attachments included.



You can use a Right-click menu inside the "Attachment List" panel to open and extract Attachments.

For each Attachment in the list the following properties are displayed:

- ▶ **Name** - the Attachment file Name.
- ▶ **Description** - the description entered for the Attachment when it was added to the Occurrence.
- ▶ **Type** - the MIME type of the Attachment file.
- ▶ **Size** - the size of the Attachment file.
- ▶ **Date** - the last Modification Date of the Attachment file.

To access an Attachment you first select it in the list and then you can either:

- ▶ **Open** - use the "Right-click > Open" menu-item in the panel or double-click on the Attachment line to open it using the associated application in Windows.
- ▶ **Save** - use the "Right-click > Save" menu-item to save the Attachment. Use the standard "Save as" dialog to select the target folder and, if needed, to rename the Attachment file.

You can add Attachments using the "Edit" window when editing/creating Occurrences ([see page 97](#)).

4.2.6. OCCURRENCE LIST PANEL

The "Occurrence List" panel displays a list of Occurrences that is either the result of a Query on the database or the content of an ECCAIRS Occurrence file.

File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
200912062	CAA	TURB: Turbulence encounter	737	G-FDZG	LIMJ (GOA): Genova/Sestri
200913871	CAA		737	EI-EBZ	LIMJ (GOA): Genova/Sestri
200912233	CAA			ZZ-UNKNOWN	LIMJ (GOA): Genova/Sestri
200911862	CAA	RI-VAP: Runway incursion - vehicle, aircraft or person	A319	HB-ZZ	LIMJ (GOA): Genova/Sestri
200912334	CAA	SCF-NP: System/component failure or malfunction [non-powerplant]	737	G-EZJW	LIMJ (GOA): Genova/Sestri
200912664	CAA		737	EI-DHS	LIMJ (GOA): Genova/Sestri
200912497	CAA	LOC-I: Loss of control - inflight	737	EI-DAL	LIMJ (GOA): Genova/Sestri
200912007	CAA		737	G-EZJT	LIMJ (GOA): Genova/Sestri
200912425	CAA	RAMP: Ground Handling	737	G-THOH	LIMJ (GOA): Genova/Sestri
200912520	CAA		737	ZZ-UNKNOWN	LIMJ (GOA): Genova/Sestri
200912587	CAA		OTHER	EI-UNKNOWN	LIMJ (GOA): Genova/Sestri
200912584	CAA		737	SF-RHU	LIMJ (GOA): Genova/Sestri

You can:

- ▶ **Click on Occurrence** - to display its content in the "Information" panel.
- ▶ **Double-click on Occurrence** - to edit it using the "Occurrence Edit" window ([see page 95](#)).
- ▶ **Use the Right-click menu** - the Right-click menu ([see page 38](#)) let you browse, search, narrow down or organize the results of a Query or the contents of an Occurrence file.
- ▶ **Select Occurrences** - single-clicking on an Occurrence both displays its content in the "Information" panel and selects it.
To select multiple Occurrences in the Occurrence List use the standard Windows ways: i.e. use the mouse, also with **"CTRL"** and **"SHIFT"** keys for multiple (not)/contiguous/not selections. You can then perform actions of the selected Occurrences using the:
 - **Right-click menu** ([see page 38](#)).
 - **Edit menu** ([see page 50](#)).
 - **Occurrence menu** ([see page 84](#)).
 - **"File > Send to" menu-items** - for sending the Occurrences to a file, to the database or via E-Mail using the "File > Send to" ([see page 42](#)) and "File > Send deidentified to" ([see page 44](#)) menu-items.
- ▶ **Display Occurrences from File or Database** - you can select to display either the database Query results or the ECCAIRS Occurrence file currently loaded via the "View > Show Occurrence List" menu-item ([see page 55](#)).
- ▶ **Display Occurrence batches** - in case more Occurrences should result from the Query then the batch size specified in the Repository you are logged in, the resulting Occurrences are displayed in batches. The Status bar displays the number of the current batch of Occurrences being displayed in the "Occurrence List" panel ([see page 32](#)).
The "Database > Go to batch" menu-item ([see page 80](#)) let you navigate among batches and gives more details and options.
- ▶ **Detach or dock the panel** - using the "View > Detach/Dock the Occurrence List" menu-item ([see page 54](#)).

Automatic Query at Login

When you start the ECCAIRS 5 Browser and you log on to a Repository with a database, or you subsequently (re)connect to a Repository using the "File > Connect" menu-item, the Browser program

may execute automatically a pre-defined Query, if any has been set, and then displays the resulting Occurrences in the "Occurrence List" panel.

You can use this feature to automatically retrieve and show, for instance, the Occurrences entered yesterday, or during last week, or those still in a processing-state that you wish to monitor.

The "Automatic Query" is set in the Repository within the profile associated to the User/Role currently logged in. However you may edit or change the Query to be used, if the related profile in the Repository allows you to do so. You can customise the pre-defined "Automatic Query" by selecting the "View > Options > Automatic Query" menu-item.

"Occurrence List" panel customisation

The only difference when operating on the result of database Queries, rather than on Occurrence files, is additional information related to locking of Occurrences in the database when looking at the results of a Query.

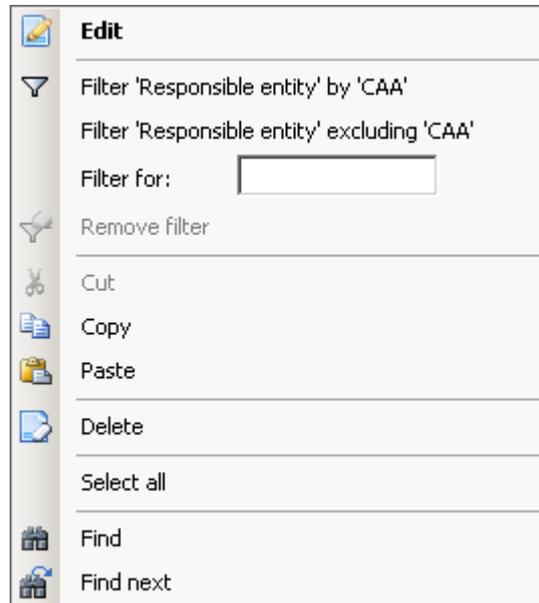
The background colours used for the file and database Occurrence List can be customised in the "View > Options > Appearance" menu-item.

Note that you will be able to customise only the colours and font of the panel with the type of Occurrences you are currently displaying in the list. This means that if you are displaying Occurrences from a database Query then your colours and font customisation will be applied to that case only (and not to the Occurrence List from ECCAIRS Occurrence files).

With the "View > Options > Occurrence List" menu-item also the Attributes displayed in the "Occurrence List" panel can be customised.

4.3. RIGHT-CLICK MENU

The Right-click menu, active in the "Occurrence List" pane, includes functions related to Occurrence Lists.



Menu items:

- ▶ **Edit**
- ▶ **Filter by**
- ▶ **Filter excluding**
- ▶ **Filter for**
- ▶ **Remove filter**
- ▶ **Cut, Copy, Paste**
- ▶ **Delete**
- ▶ **Select all**
- ▶ **Find**
- ▶ **Find next**

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.3.1. RIGHT-CLICK > EDIT

Same as the "Occurrence > Edit" menu-item ([see page 86](#)).

4.3.2. RIGHT-CLICK > FILTER BY

You can show only Occurrences sharing the same Attribute value with a reference one. Click on an Attribute column containing the reference Value in the Occurrence List and then select the "Right-click >Filter...by" menu-item.

4.3.3. RIGHT-CLICK > FILTER EXCLUDING

You can show only Occurrences that have a different Attribute Value with respect to a reference one. Click on an Attribute column containing the reference Value in the Occurrence List and then select the "Right-click >Filter...excluding".

4.3.4. RIGHT-CLICK > FILTER FOR

To display (filter) Occurrences possessing a specific Attribute, without referring to any other visible reference value, first click on any item in the Attribute column wanted in the Occurrence List, then select "Right-click >Filter for" menu-item. and specify the Attribute value to use as display filter.

The number of Occurrences selected, visible (because of the possible filter applied) and total are shown in the bottom status bar.

4.3.5. RIGHT-CLICK > REMOVE FILTER

To remove any display filter set on the Occurrence List, select "Right-click> Remove filter" menu-item.

4.3.6. RIGHT-CLICK > CUT, COPY, PASTE

Same as the "Edit > Cut, Copy, Paste" menu-item ([see page 50](#)).

4.3.7. RIGHT-CLICK > DELETE

Same as the "Occurrence > Delete" menu-item ([see page 87](#)).

4.3.8. RIGHT-CLICK > SELECT ALL

Same as the "Edit > Select all" menu-item ([see page 51](#)).

4.3.9. RIGHT-CLICK > FIND

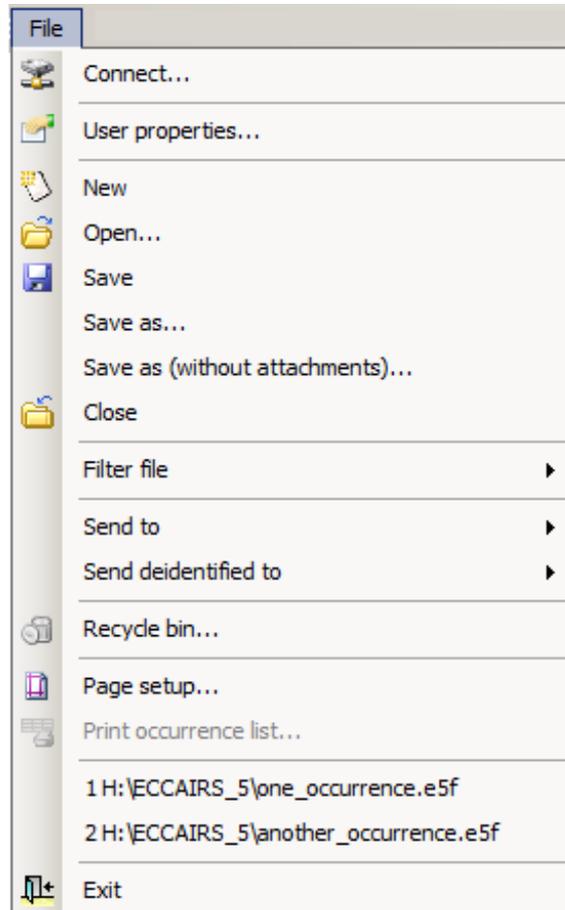
Same as the "Edit > Find" menu-item ([see page 51](#)).

4.3.10. RIGHT-CLICK > FIND NEXT

Same as the "Edit > Find next " menu-item ([see page 51](#)).

4.4. FILE MENU

The File menu includes mainly functions related to Occurrence files and printing.



Menu items:

- ▶ **Connect**
- ▶ **User Properties**
- ▶ **New**
- ▶ **Open**
- ▶ **Save**
- ▶ **Save as**
- ▶ **Save as (without attachments)**
- ▶ **Close**
- ▶ **Filter file**
- ▶ **Send to**
- ▶ **Send Deidentified to**
- ▶ **Recycle bin**
- ▶ **Page setup**

- ▶ **Print Occurrence List**
- ▶ **Open one of the Most Recently Used Occurrence files**
- ▶ **Exit**

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.4.1. FILE > CONNECT

Selecting "File > Connect " you go through the same the Repository Logon process made when starting the application ([see page 19](#)).

This may be useful if you need either to change the Repository you are logged in or refresh the Repository settings, in case they have been modified in the meantime.

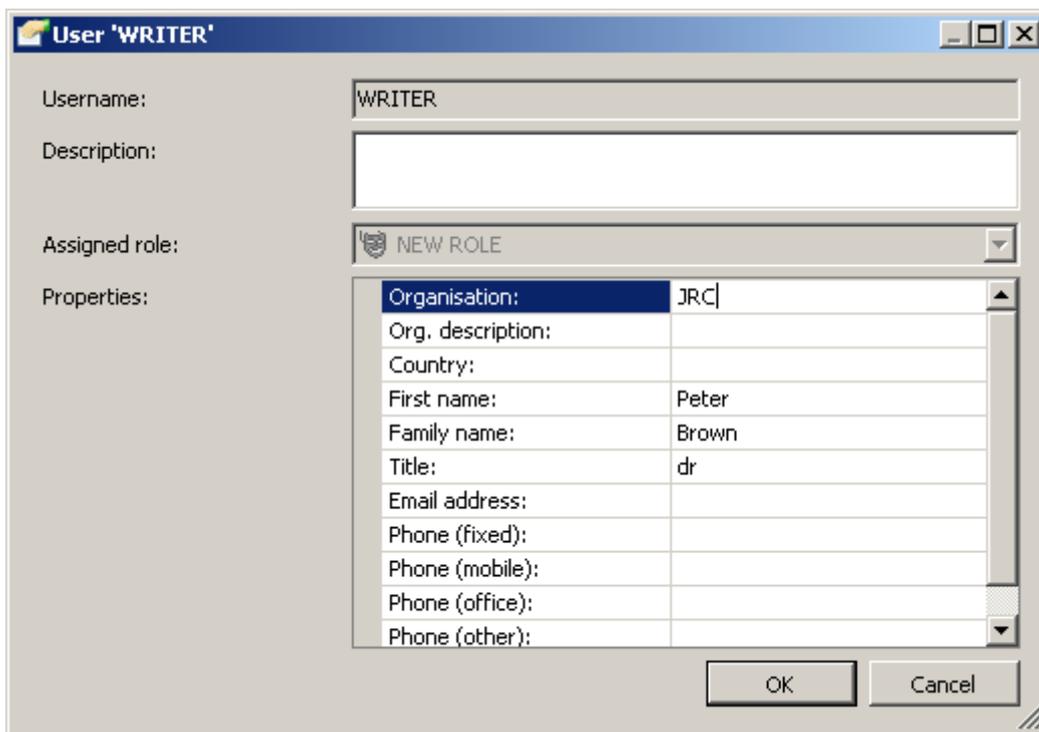
Note that:

- ▶ The connect icon in the status bar (bottom right) will be turned active if the new Repository contains a database. If the Repository only allows for file access the connect icon will turn (or remain) inactive
- ▶ The "Occurrence List" panel is automatically switched to the "Show the Query Occurrence List " view mode (different background colour - pale blue by default). However since no Query has been run yet, the Occurrence List is now empty.

In fact connecting to a database does not automatically display Occurrences in the Repository. To extract/list information into the "Occurrence List" panel a Query must be created and executed.

4.4.2. FILE > USER PROPERTIES

You can enter values for the User Properties (Name, Organisation, Country, etc) through the "User xxx" dialog box which shows up (xxx is the name of the User logged in).



The User Properties can be used in Queries as comparison values ([see page 304](#)).

Some of these fields may be already filled in since they may have been pre-defined in the Repository for the current User.

In any case you may modify any User Property value already set.

4.4.3. FILE > NEW

Creates a new Occurrence file.

This will bring up the standard file selection dialog window in which you can define the location and name of the Occurrence file you wish to create.

4.4.4. FILE > OPEN

Opens an existing Occurrence file. Occurrence files use the ECCAIRS Data File format and have the (*.e5f) file extension ([see page 18](#)).

This will bring up the standard Windows dialog form in which you can define the location and name of the Occurrence file you wish to open.

The Occurrence file will then be loaded and the "Occurrence List" panel will be accordingly populated.

Since any Occurrence have a size between 50 and 200Kbytes the process may not be quick for large files. For practical reasons it is suggested to limit an Occurrence file to about 500 Occurrences.

4.4.5. FILE > SAVE

Saves the Occurrences in the "Occurrence List" panel into the currently open Occurrence file. This requires that you have opened an Occurrence file before.

If the "Save" menu-item and the "Save" icon-button in the Toolbar are disabled (i.e. greyed out), this may be because either:

- ▶ no change has been made to the Occurrences, so there is nothing to save.
- ▶ the "Occurrence List" is not displaying Occurrences from the Occurrence file, but those extracted from the Database Repository.
In this case select the "View > Show Occurrence list > Show the 'File' Occurrence List" menu-item, or the corresponding Toolbar item.

4.4.6. FILE > SAVE AS

Saves all the Occurrences in the "Occurrence List" panel into an Occurrence file, including possible Attachments. Use the standard "Save as" dialog to specify the target Occurrence file and location.

If the "Save as" menu-item is disabled (i.e. greyed out), this may be because the "Occurrence List" is not displaying Occurrences from the Occurrence file, but those extracted from the Database Repository. In this case select the "View > Show Occurrence list > Show the 'File' Occurrence List" menu-item, or the corresponding Toolbar item.

[File > Send to > File](#)

To save only the Occurrences currently selected in the "Occurrence List" panel you can use the "File > Send to > File" menu-item ([see page 44](#)).

4.4.7. FILE > SAVE AS (WITHOUT ATTACHMENTS)

Same as "File > Save as", but this time no Attachments are saved in the target Occurrence file.

4.4.8. FILE > CLOSE

Closes the currently open Occurrence file.

The file-originated "Occurrence List" panel is cleared.

If any change has been made to the file-originated "Occurrence List" then you will be asked to save them into the Occurrence File or discard them.

The ECCAIRS Browser application remains open.

4.4.9. FILE > FILTER FILE

You may wish to show in the in the "Occurrence List" panel only Occurrences, from the currently open Occurrence file, matching a specific Query.

You use exactly the same tools and functions used for selecting Occurrences from the database.

This is done through the sub-items of the "File > Filter file" menu-item:

- ▶ **Use Query library** - starts the "Query Builder" facility to define/select Queries and their Libraries, just as in "Database > Build Query" menu-item ([see page 77](#)).
- ▶ **Use Query by example** - you can fill one or more Attribute values of a Section (pre-defined for your User/Role in the Repository) to filter Occurrences with the same values. Just as in "Database > Query by Example" menu-item ([see page 79](#)).
- ▶ **Remove filter** - removes the filter applied. All the Occurrences from the ECCAIRS Data file will be displayed in the "Occurrence List" pane. Just as in "Right-click > Remove filter" menu-item ([see page 39](#)).
- ▶ **Re-execute last Queries** - these last items are the last four Queries executed. You can directly pick up one to re-run it. Just as in "Database > Re-execute Last Queries" menu-items ([see page 83](#)).

The number of Occurrences visible (because of the possible filter applied) and total are shown in the bottom Status bar.

Selected: 1 Visible: 2 Total: 253

4.4.10. FILE > SEND TO

It is possible to send the Occurrences currently selected in the "Occurrence List" panel, either to an E-Mail address, or to an Occurrence file or to the database associated with the Repository.

To do this, select the required Occurrences and select:

- ▶ **File > Send to > E-Mail** - the MAPI-compliant mail client defined in the system is invoked with a pre-typed test, including date, time, current ECCAIRS operator and related organization, and the selected Occurrences are grouped and attached as an Occurrence file.
- ▶ **File > Send to > File** - use the standard "Save" dialog to specify the name and location of the target Occurrence file.
- ▶ **File > Send to > Database** - a consistency check is performed on the Occurrences before inserting them into the database. Suitable success/error reports are displayed with dialog windows.

Using this function you can save into the database Occurrences loaded from an Occurrence File.

Note

The "File > Send to > Database" menu-item is enabled only if the "Occurrence List" panel displays Occurrences from a file (i.e. yellow-background "Occurrence List" pane, by default). You can use "View > Show the Occurrence List > Show the 'File' Occurrence List" or the corresponding Toolbar icon-button to switch to File Occurrence display.

Additional Tools

The same file-to-database import function can be performed using the stand-alone specific external application "ECCAIRS Data Manager" ([see page 155](#)). This tool offers more options and the capability to handle several input files, so could be more suitable for "mass-import" of Occurrences.

4.4.11. FILE > SEND DEIDENTIFIED TO

Exports de-identified Occurrences into a new Occurrence file.

This means that a number of Attributes Values will be removed from the saved Occurrences.

The User/Role within the Repository you are logged in has some preset Attributes which will be mandatorily de-identified, when you select to save them so. However you can add other Attributes to de-identify.

The selected Occurrences, properly de-identified, can be saved in different places, according to the specific the sub-menu-item selected:

- ▶ **File > Send Deidentified to > E-Mail**
- ▶ **File > Send Deidentified to > File**

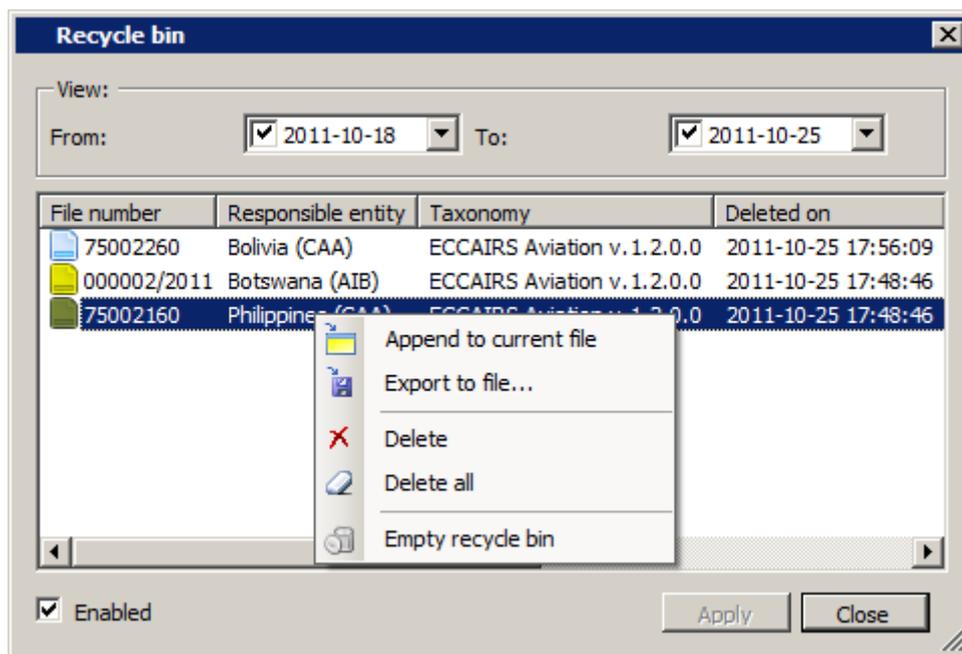
In case "File" is selected, a standard Windows browse dialog is displayed to choose the target file and folder.

4.4.12. FILE > RECYCLE BIN

If the "Recycle Bin" feature is enabled ([see the end of this Section](#)), then all the Occurrences deleted in the Browser are automatically stored in the "Recycle Bin".

If so, in case of need, it is possible to restore any Occurrence deleted in the currently open Occurrence file or export them in a new Occurrence file.

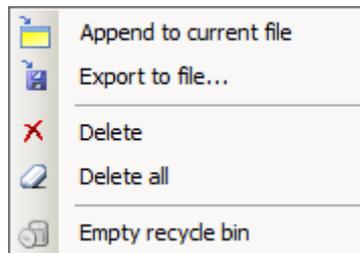
The "Recycle Bin" dialog window shows in its main panel all the Occurrences that have been deleted. More precisely, it shows the Occurrences deleted when the Recycle Bin has been enabled and since the last Recycle Bin purge operation.



Dialog items:

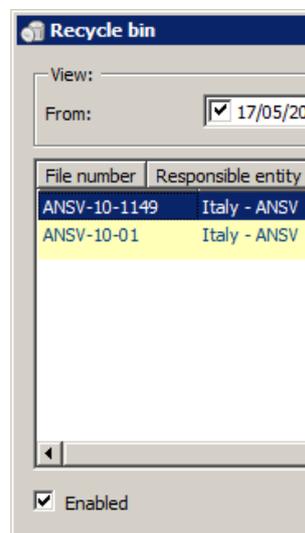
- ▶ **List Box content** - the central list box displays the Occurrences that have been deleted. Occurrences deleted from the database are marked with a pale-blue icon, while those deleted from an Occurrence file are marked with a yellow icon. For each Occurrence deleted the following information is displayed:
 - **Taxonomy-specific "Special Attributes"** - a number of columns with the "Special Attributes" specific to the Taxonomy in use. These are defined in the Taxonomy itself and are normally used as mandatory data to uniquely identify the Occurrence. For instance "File Number" and "Responsible Entity" in the Aviation domain, or "Casualty Report number" and "State Reporting" in the Maritime domain.
 - **Taxonomy** - the Taxonomy and its version in use within the Repository when the Occurrence was deleted.
 - **Deleted on** - the date and time when the Occurrence was deleted.
 - **Deleted from** - either the text "Query" or the "Occurrence File" name, depending whether the Occurrence was deleted from the Occurrence List resulting from a database Query or from the Occurrence List from an "Occurrence File".
 - **Last modified on** - the last modification date and time of the Occurrence.
 - **Created on** - the creation date and time of the Occurrence.

- ▶ **List Box headers (sort)** - you can sort the list of deleted Occurrences by clicking on the header of the columns of the upper display pane. Clicking again reverses the sort order.
- ▶ **View** - (calendar-controls and check-boxes) by default the panel shows the Occurrences deleted during the last week.
Using the "From" and "To" drop-down calendar-controls you can specify to display only Occurrences deleted within a defined time interval. If you uncheck the "From" check-box then you display all Occurrences deleted up to the "To" date and since the last "Empty Recycle bin" action. Conversely, if you uncheck the "To" check-box then you display all Occurrences deleted from the "From" date up to now. If a "Empty Recycle bin" action has been performed in between, then you display all Occurrences deleted from the last "Empty Recycle bin" date up to now.
- ▶ **Right-click menu** - you can select one or more of the deleted Occurrences in the list, using the standard Windows multi-selection methods, and then right-click to display a corresponding menu.



Menu items:

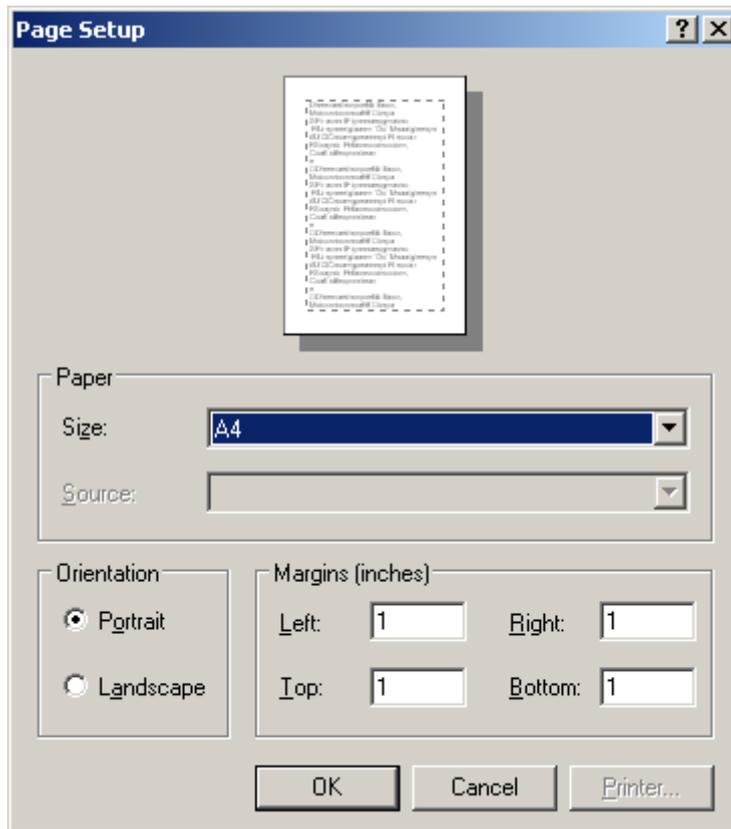
- **Append to current file** - to restore the Occurrence(s) into the currently open Occurrence file. If no Occurrence file is already open, a new one is implicitly created and the restored Occurrence(s) are displayed in the "File-Occurrence List" panel. If you should need to restore those Occurrence(s) into the database, select them in the "File-Occurrence List" panel and use the "File > Send to > Database" menu-item to do the job.
- **Export** - to export the selected Occurrence(s) in a new Occurrence file.
- **Delete** - to remove only selected Occurrence(s).
- **Remove All** - to remove all Occurrences displayed.
- **Empty Recycle bin** - to remove all Occurrences, even those which are not displayed in the upper list because out of the date-range view-filter possibly set.
- ▶ **Enabled** - (check-box) choose this option to enable the "Recycle Bin" feature.



4.4.13. FILE > PAGE SETUP

All print output in the ECCAIRS Browser (i.e. File > Print Occurrence List, Occurrence > Print, etc) is directed to the printer currently selected in Windows .

If you select the "File > Page setup" menu-item you can use the "Page Setup" dialog set the printing preferences: paper size and source, page orientation and page margins.



To exit the dialog click:

- ▶ **OK** - to save the selections made so far.
- ▶ **Cancel** - to discard the selections made so far.

4.4.14. FILE > PRINT OCCURRENCE LIST

Prints the list of either the selected Occurrences or the whole Occurrence List, if no Occurrences are selected in the "Occurrence List" panel.

The menu-item is enabled only if a proper printing layout/template has been defined in the Browser profile for the User/Role you are logged in to the Repository.

The function invokes the standard Windows print dialog, where you can choose printer and options.

Before any printing the "Print Preview" dialog is displayed ([see page 89](#)).

The printout follows the layout/template that has been set in the Browser profile for your User/Role. The pages include headers and footers and, for each Occurrence, a set of columns as in the "Occurrence List" panel. The Attributes listed may be a subset of them and also in different order.

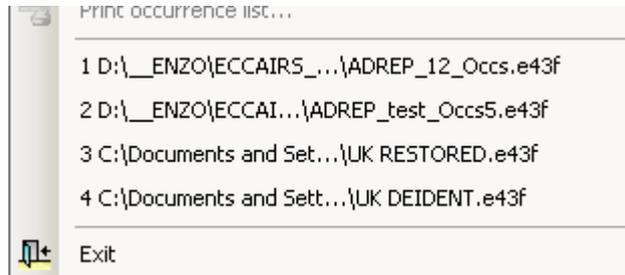
22/09/2010
Softeco

File number	Responsible entity	Location indicator	Occurrence category	Make/mdl/srs	Aircraft registration
200912062	CAA	LIMJ (GOA): Genova/Sestri	TURB: Turbulence encounter	737	G-FDZG
200913871	CAA	LIMJ (GOA): Genova/Sestri		737	EI-EBZ
200912233	CAA	LIMJ (GOA): Genova/Sestri			ZZ-UNKNOWN
200911862	CAA	LIMJ (GOA): Genova/Sestri	RI-VAP: Runway incursion - vehicle, aircraft or person	A319	HB-ZZ
200912334	CAA	LIMJ (GOA): Genova/Sestri	SCF-NP: System/component failure or malfunction [non-powerplant]	737	G-EZJW
200912664	CAA	LIMJ (GOA): Genova/Sestri		737	EI-DHS
200912497	CAA	LIMJ (GOA): Genova/Sestri	LOC-I: Loss of control - inflig	737	EI-DAL
200912007	CAA	LIMJ (GOA): Genova/Sestri		737	G-EZJT
200912425	CAA	LIMJ (GOA): Genova/Sestri	RAMP: Ground Handling	737	G-THOH
200912520	CAA	LIMJ (GOA): Genova/Sestri		737	ZZ-UNKNOWN
200912587	CAA	LIMJ (GOA): Genova/Sestri	OTHER		EI-UNKNOWN
200912594	CAA	LIMJ (GOA): Genova/Sestri		737	SE-RHU
200912638	CAA	LIMJ (GOA): Genova/Sestri		737	G-FDZF
200912681	CAA	LIMJ (GOA): Genova/Sestri		737	PH-UNKNOWN
200912721	CAA	LIMJ (GOA): Genova/Sestri		737	G-EZKE
200912769	CAA	LIMJ (GOA): Genova/Sestri	LOC-I: Loss of control - inflig	737	G-DOCB
200912778	CAA	LIMJ (GOA): Genova/Sestri		737	G-DOCL
200912813	CAA	LIMJ (GOA): Genova/Sestri		737	D-UNKNOWN
200912814	CAA	LIMJ (GOA): Genova/Sestri		737	G-FDZG
200911883	CAA	LIMJ (GOA): Genova/Sestri	WSTRW: Windshear or thunderstorm.	737	G-TOYJ
200911976	CAA	LIMJ (GOA): Genova/Sestri		737	OO-TNB
200912023	CAA	LIMJ (GOA): Genova/Sestri	SCF-PP: powerplant failure or malfunction	737	G-FDZG
200912047	CAA	LIMJ (GOA): Genova/Sestri	SCF-NP: System/component failure or malfunction [non-powerplant]	737	A6-UNKNOWN
200912053	CAA	LIMJ (GOA): Genova/Sestri		737	G-UNKNOWN
200912129	CAA	LIMJ (GOA): Genova/Sestri		737	G-CELB
200912167	CAA	LIMJ (GOA): Genova/Sestri	SCF-NP: System/component failure or malfunction [non-powerplant]	737	EI-DHY

1 / 3

4.4.15. FILE > OPEN THE MOST RECENTLY USED FILES

It is also possible to directly re-open any of the most recently used files, listed in the bottom part of the "File" menu.



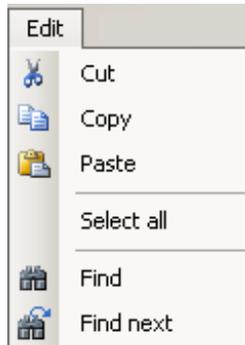
4.4.16. FILE > EXIT

Exits the ECCAIRS Browser application.

If any change has been made to the file-originated "Occurrence List", if one is currently opened-loaded into the application, then you will be asked to save them into the Occurrence file or discard them.

4.5. EDIT MENU

The Edit menu includes functions operating on the List of Occurrences displayed. The same functions, and additional ones, can be invoked by the Right-click contextual menu available within the "Occurrence List" panel ([see page 38](#)).



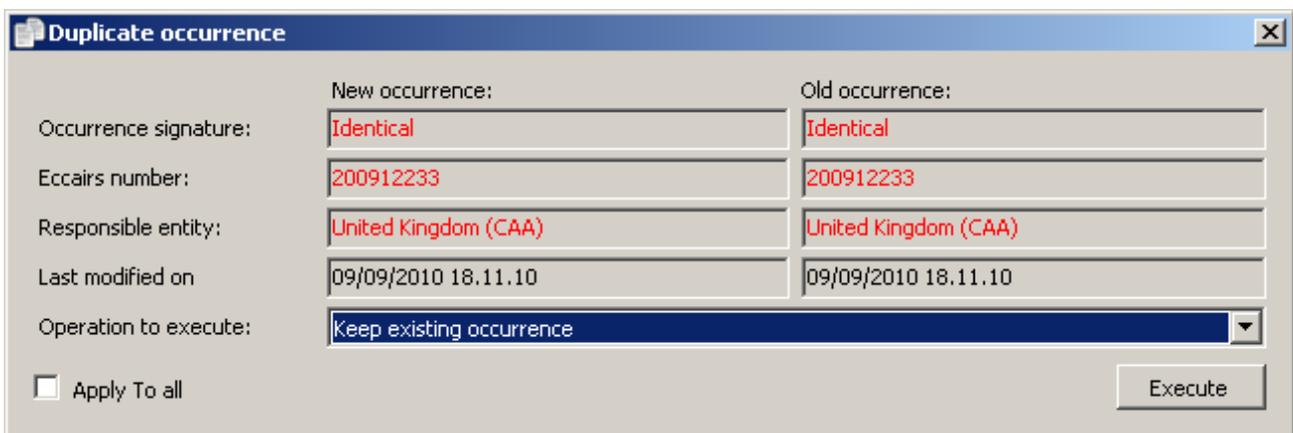
Menu items:

- ▶ **Cut, Copy, Paste**
- ▶ **Select all**
- ▶ **Find**
- ▶ **Find next**

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.5.1. EDIT > CUT, COPY AND PASTE

Cut/Copy and Paste may be used to move or copy Occurrences from one Occurrence List to another (i.e. from the file-based Occurrence List to the database-Query based Occurrence List, and vice versa) If you copy and then paste an Occurrence in the same Occurrence List then you will be warned that you are trying to insert a duplicate Occurrence.



You have to specify the "Operation to execute" among: keep existing Occurrence, Insert as a new Occurrence, Merge Occurrences, Overwrite existing Occurrence, Stop uploading.

The same applies if you are pasting a copied Occurrence in an Occurrence List that already includes an Occurrence with same unique signature.

In case you select "Insert as a new Occurrence" then you will be able to modify the "ECCAIRS number", so that the new Occurrence is actually distinguished from the one you used as copy source.

Once you have selected the "Operation to execute" click the "Execute" button to perform the action.

4.5.2. EDIT > SELECT ALL

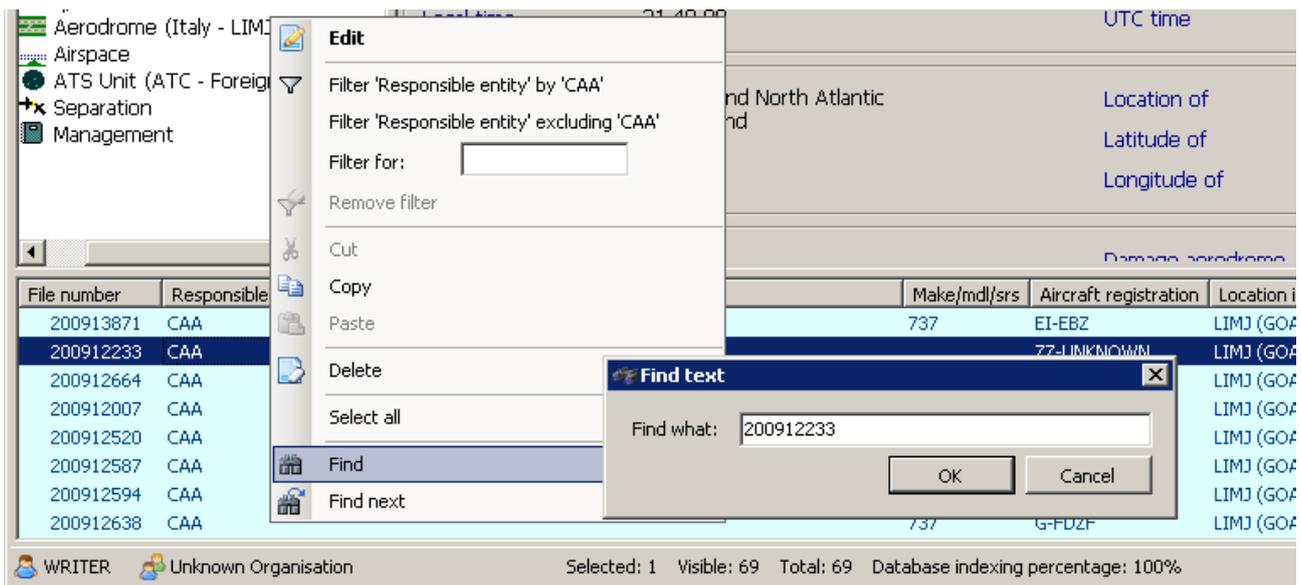
Selects all the Occurrences in the list.

To select single or multiple Occurrences in the Occurrence List use the standard Windows ways: i.e. use the mouse, also with "CTRL" and "SHIFT" keys for multiple (not)/contiguous/not selections.

4.5.3. EDIT > FIND

Searches and selects an Occurrence containing a specific.

Enter the search string in the "Find text" dialog box displayed and click the "OK" button to search. Only the first Occurrence matching the string is found and selected, if any.

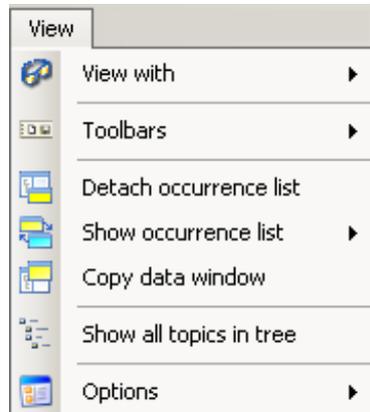


4.5.4. EDIT > FIND NEXT

Finds and selects the next Occurrence matching the string already specified on selecting "Edit > Find Text" menu-item.

4.6. VIEW MENU

The View menu includes miscellaneous display options.



Menu items:

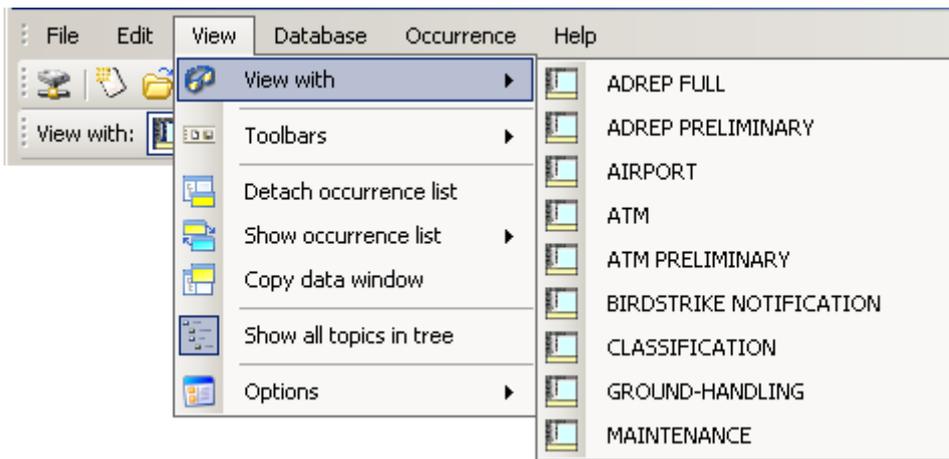
- ▶ **View with**
- ▶ **Toolbars**
- ▶ **Detach Occurrence List / Dock Occurrence List**
- ▶ **Show Occurrence List**
- ▶ **Copy Data window**
- ▶ **Show all Topics in Tree**
- ▶ **Options**

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.6.1. VIEW > VIEW WITH

Each Repository has one or more User-Roles defined, and every User belongs to a Role. One or more Views are made available to a Role, and therefore to all the Users with that Role. Each View is actually a "view" upon the data stored for each Occurrence. Changing the View only changes the way data is presented/organised, and not the data itself.

You use the "View > View with" sub-menu-items to select any of the Views available to your Role.

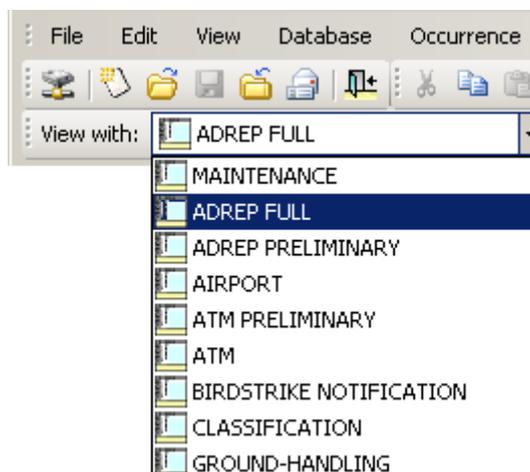


For instance, in the Aviation domain, there are 4 Views that are commonly used:

- ▶ The ADREP view organises the data according to the complete ADREP 2000 revision 2009 Taxonomy
- ▶ The ADREP Preliminary view is a quick kind of preliminary report focused on flight operations information
- ▶ The ATM view focuses on the Air Traffic Management issues
- ▶ The ATM Preliminary view is a quick kind of preliminary report focused on ATM specific type of information

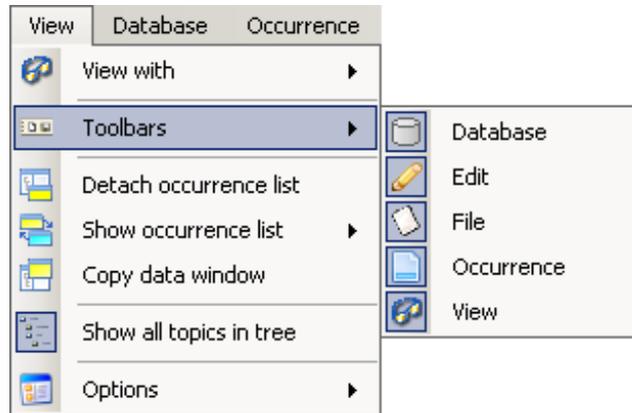
Below the Views made available to your Role, and therefore to all the Users with that Role, you can have other Views that you may use within the Browser using the "View > Options > View Management" menu-item.

You can select the View also using the corresponding drop-down list in the Toolbar.



4.6.2. VIEW > TOOLBARS

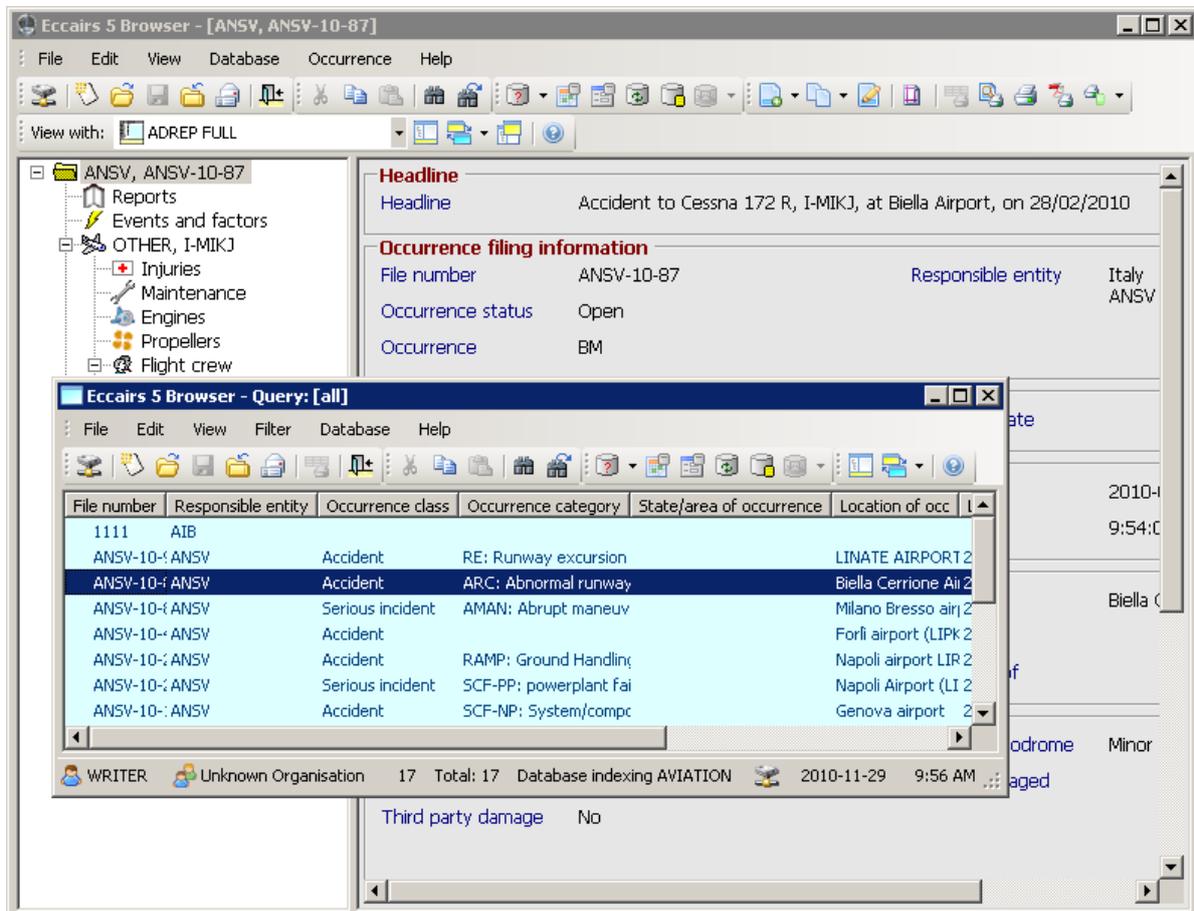
Using the "View > Toolbars" submenu-item you can toggle each of the five Toolbars as visible (default) or invisible the Toolbar.



4.6.3. VIEW > DETACH/DOCK OCCURRENCE LIST

The "Occurrence List" panel is detachable via the "View > Detach Occurrence List" menu-item or the corresponding Toolbar item. This allows, for instance, to deal more easily long lists of Occurrences or devote more space to the "Occurrence Information" panel.

When the list of Occurrences is detached, its window is completely self-standing, Toolbar inclusive, and can be made as large as needed.



Dock Occurrence List

The Occurrence List can be re-linked to the main window by using "View > Dock Occurrence List" menu-item or the corresponding Toolbar items.

4.6.4. VIEW > SHOW OCCURRENCE LIST

You can select to display either the database Query results or the ECCAIRS Occurrence file currently loaded can be done via the "View > Show Occurrence List " sub-menu items or the corresponding Toolbar items.

File > Show Occurrence List > Show the 'File' Occurrence List

Displays the list of Occurrences from an ECCAIRS Occurrence file over a pale yellow background. The colours can be different with the User/Role you are logged in to your Repository. You can in any case customise them using the "View > Options > Appearance" menu-item ([see page 57](#)).

File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
878	AIB	EVAC: Evacuation	II	CBY-55	NSTU (PPG): Pago Pago/Intl,Tutuila I.
985	AIB	CFIT: Controlled flight into or toward terrain	CUBY	CBY543	PAAQ (PAQ): Palmer/Muni,Ak.
1234	AIB	ICE: Icing	II	4178	OAAD : Amdar
999	Airservices Australia		II		PAAQ (PAQ): Palmer/Muni,Ak.
32	AIB	EXTL: External load related occurrences	AG COBRA	WER45	
741	AIB	BIRD: Birdstrike	II	CBY44	OAAD : Amdar
177	AIB		II	REG45	(IGB) : Ingeniero Jacobacci/Cabo Faa H
10	JIAAC		M100S	PEG45	PAAQ (PAQ): Palmer/Muni,Ak.
987	AIB		720	3332	DAAB : Blida
13	AIB				DAAB : Blida
64	AIB		II		LAFK : Tirana military heliport
rest	AIB	ATM: ATM/CMS			

This list will be non-empty provided that previously both:

- ▶ an ECCAIRS Occurrence file has been opened.
- ▶ filtering and/or Querying on the corresponding Occurrences leaves some Occurrences.

File > Show Occurrence List > Show the 'Query' Occurrence List

Displays the list of Occurrences extracted from the database Query over a pale blue background. The colours can be different with the User/Role you are logged in to your Repository. You can in any case customise them using the "View > Options > Appearance" menu-item ([see page 57](#)).

File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
200912062	CAA	TURB: Turbulence encounter	737	G-FDZG	LIMJ (GOA): Genova/Sestri
200913871	CAA		737	EI-EBZ	LIMJ (GOA): Genova/Sestri
200912233	CAA			ZZ-UNKNOWN	LIMJ (GOA): Genova/Sestri
200911862	CAA	RI-VAP: Runway incursion - vehicle, aircraft or person	A319	HB-ZZ	LIMJ (GOA): Genova/Sestri
200912334	CAA	SCF-NP: System/component failure or malfunction [non-powerplant]	737	G-EZJW	LIMJ (GOA): Genova/Sestri
200912664	CAA		737	EI-DHS	LIMJ (GOA): Genova/Sestri
200912497	CAA	LOC-I: Loss of control - inflight	737	EI-DAL	LIMJ (GOA): Genova/Sestri
200912007	CAA		737	G-EZJT	LIMJ (GOA): Genova/Sestri
200912425	CAA	RAMP: Ground Handling	737	G-THOH	LIMJ (GOA): Genova/Sestri
200912520	CAA		737	ZZ-UNKNOWN	LIMJ (GOA): Genova/Sestri
200912587	CAA		OTHER	EI-UNKNOWN	LIMJ (GOA): Genova/Sestri
200912594	CAA		737	SF-RHU	LIMJ (GOA): Genova/Sestri

This list will be non-empty provided that previously both:

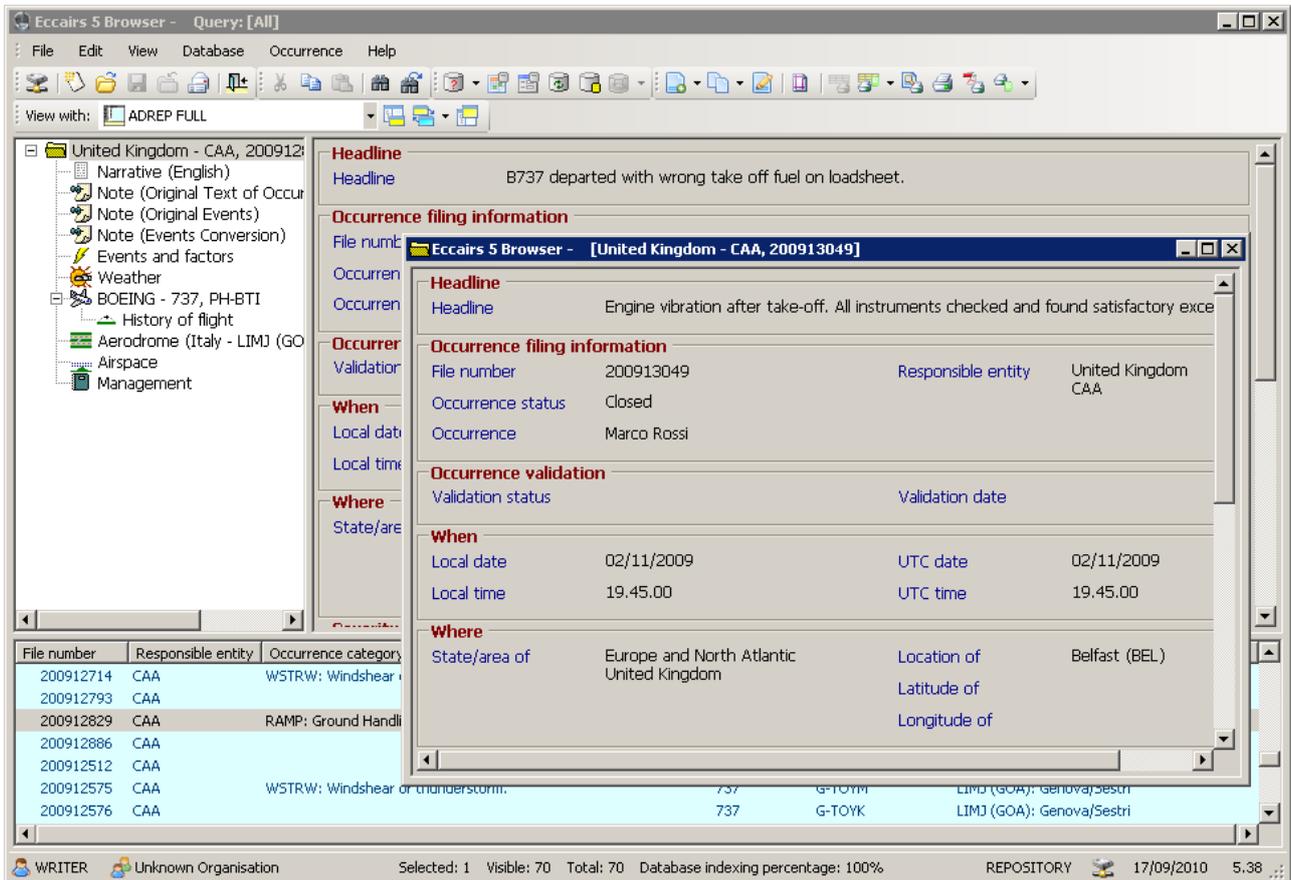
- ▶ a database connection has been provided.
- ▶ a Query has been selected executed and returns some Occurrences.
- ▶ filtering on the resulting Occurrences leaves some Occurrences.

4.6.5. VIEW > COPY DATA WINDOW

Takes a snapshot of the currently displayed Tree-data part of the "Occurrence Information" pane.

It is possible to take and manage more than one snapshot.

Each snapshot is kept in a separate window and can be moved around, resized, etc.



Note

When minimising (to an icon) the "read-mode" main Browser window, also the snapshots get minimised and thus not visible.

If you plan to display snapshots while using the "Occurrence Edit" then it is advisable to resize rather than minimize the Browser window.

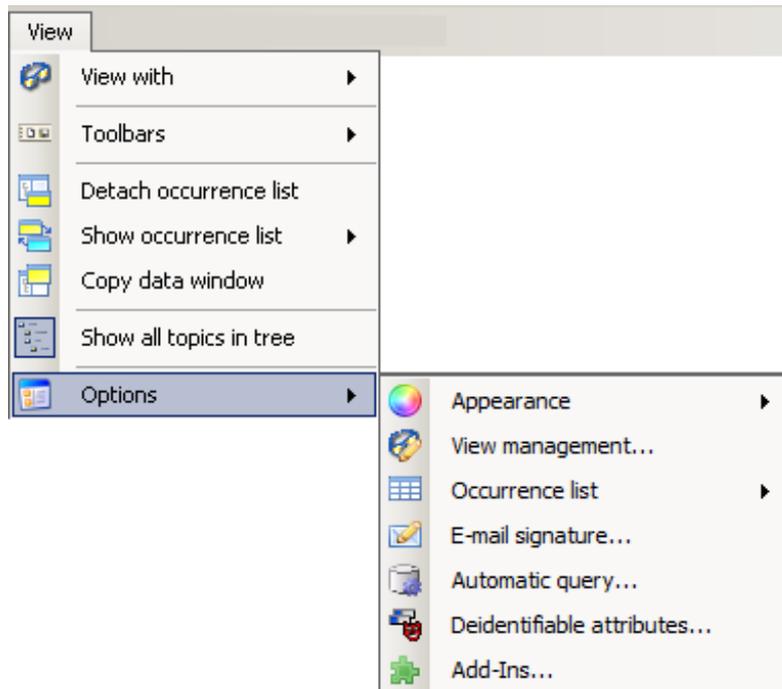
4.6.6. VIEW > SHOW ALL TOPICS IN A TREE

By default the Topic-tree panel only shows Topics containing some information.

If you select the "View > Options > Show all topics in a tree" menu-item then all the Topics are displayed in the Topic-tree left panel.

4.6.7. VIEW > OPTIONS

The User can control a number of options of the Browser by selecting the "View > Options" menu-item.



Sub-menu items:

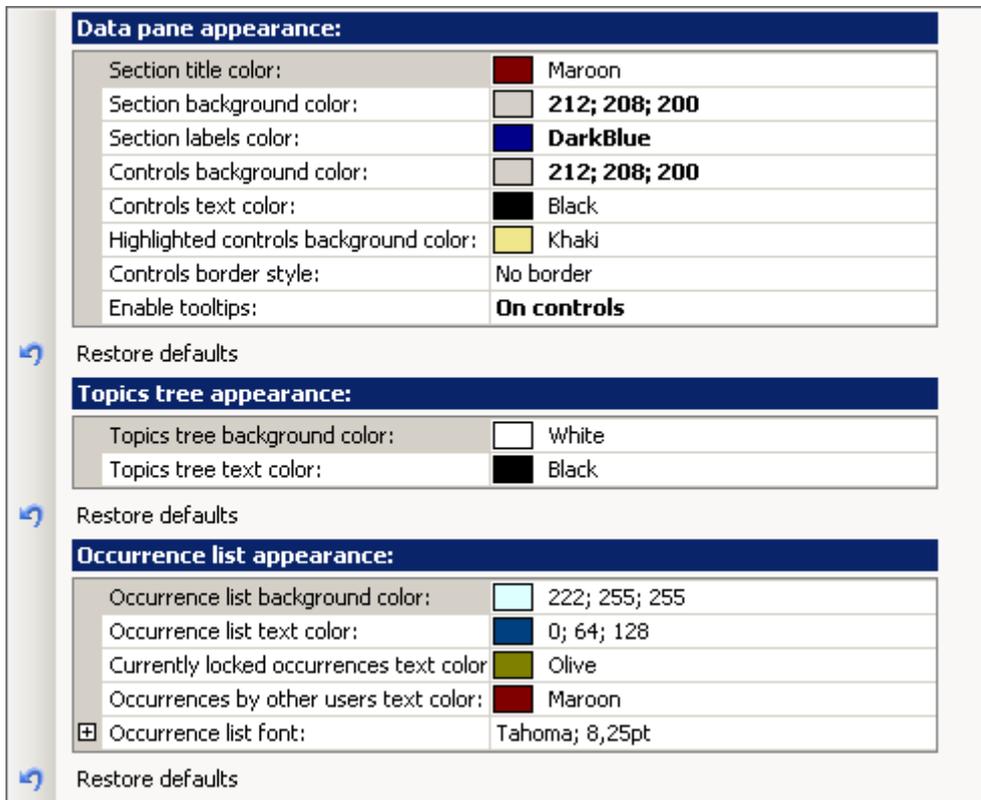
- ▶ **Appearance**
- ▶ **View Management**
- ▶ **Occurrence List**
- ▶ **E-Mail signature**
- ▶ **Automatic Query**
- ▶ **Deidentifiable Attributes**
- ▶ **Add-Ins**

4.6.7.1. VIEW > OPTIONS > APPEARANCE

The Appearance (display) options are grouped into sections and control the colour and font options of the Browser Main window, i.e. when reading/browsing Occurrences.

To set the appearance options in the Occurrence data entry mode use the "View > Options > Appearance" menu-item in the "Occurrence Edit" window ([see page 108](#)).

The Repository can be configured in such a way that not all options are available or can be changed. Contact your ECCAIRS System Administrator to have more information.



You can either set or reset to default program values:

▶ **Data panel appearance:**

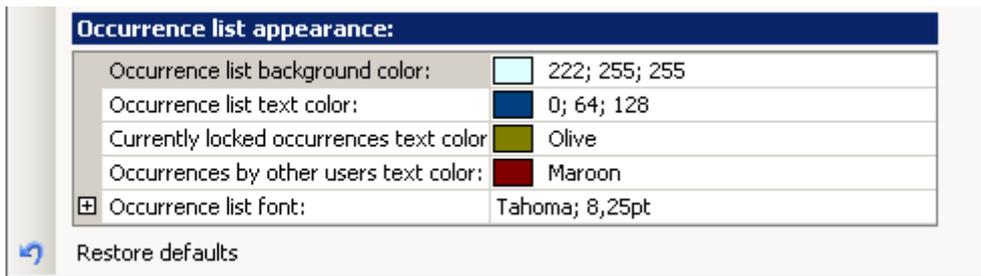
- Sections title colour
- Sections background colour
- Sections labels colour
- Controls text colour
- Controls background colour
- Highlighted controls background colour
- Controls border style (no border, solid black, 3D style)
- Tooltips (none, on controls, on drop-down lists, all).

▶ **Topics tree appearance:**

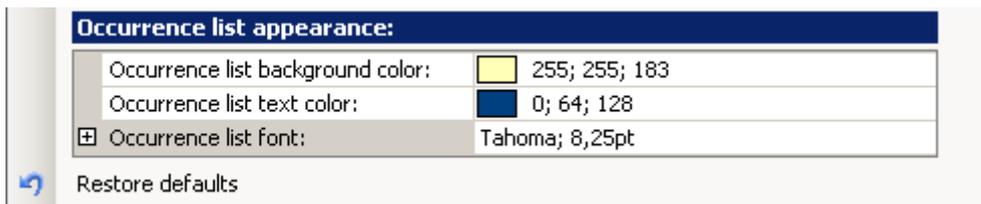
- text colour
- background colour.

▶ **Occurrence List appearance.**

If you are currently displaying the Occurrences from an Occurrence data file then you are customising that specific panel.



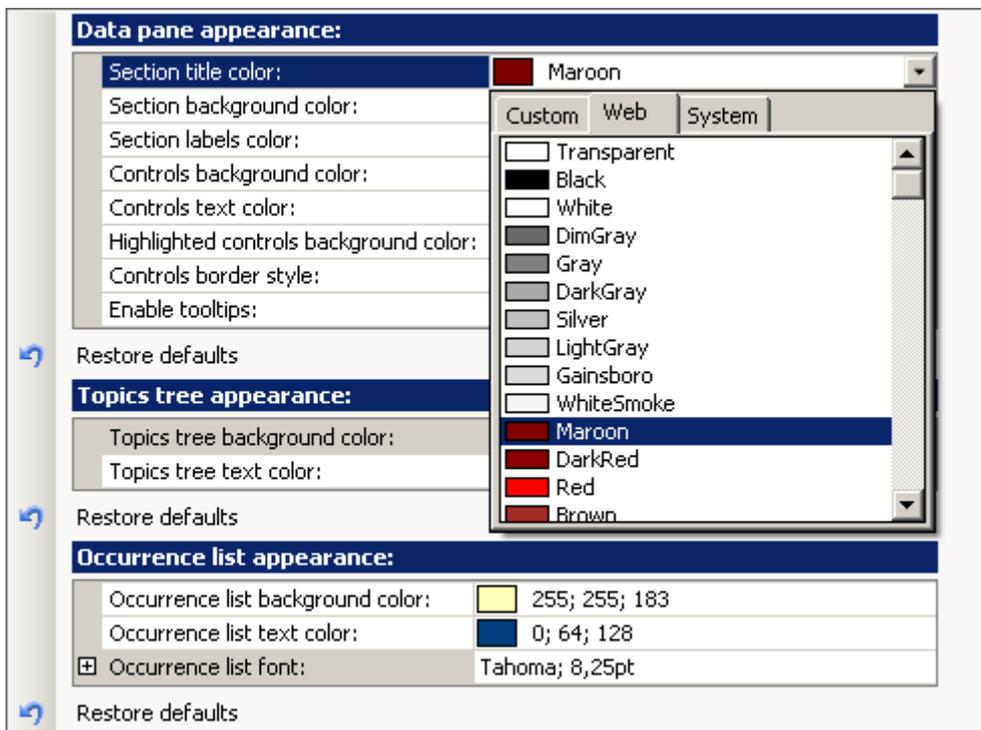
If, conversely, you are displaying Occurrences from a Query on the database then you are customising this other panel.



You can set:

- o text colour
- o background colour
- o text for Locked Occurrences (either by you or by another User)
- o text font.

Clicking on any of the colour selector displays a colour drop-down control.



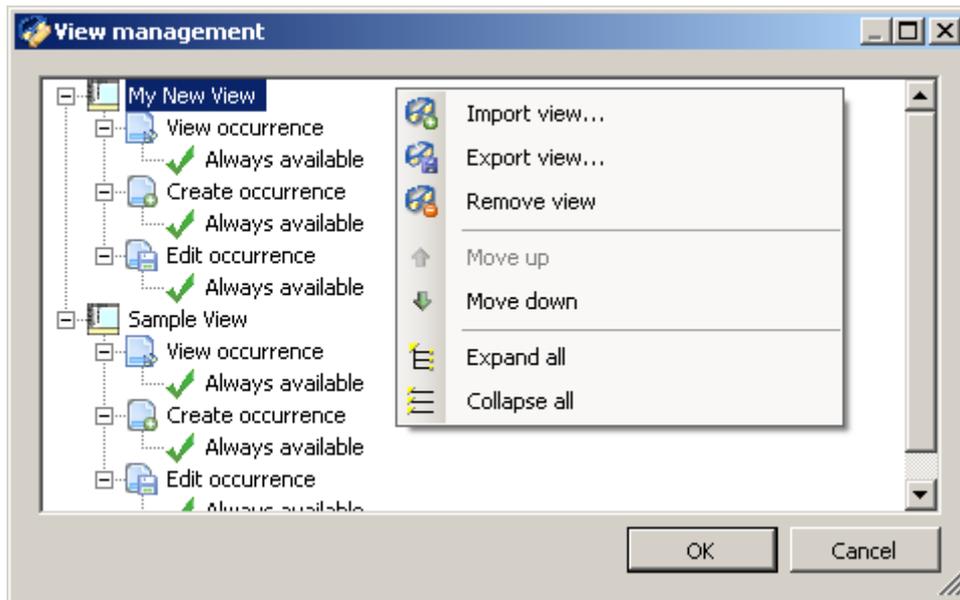
You can choose web-safe colours, Windows-system colours or even define a custom colour. Other non-colour related options are set via standard drop-down menus or font setting dialogs.

4.6.7.2. VIEW > OPTIONS > VIEW MANAGEMENT

The "View Management " menu-item allows to add extra Views to the Browser, in addition to those made available for your Role in the Repository you are logged in. You can also configure when these extra Views will be available and also export them.

You can select the extra Views using the "View > View with" sub-menu items and the "View" Toolbar drop-down list. The Views are listed after the Repository-preset Views.

To manage Views you can right-click either on an empty part inside the "View Management" dialog which shows up or on one of the Views already listed, if any.



Using the Right-click menu items you can:

- ▶ **Import and export Views.**
The Views are stored in View Project files (*.evd). Views are designed, produced and managed using the "View Designer" application.
- ▶ **Move the Views up and down in the list.**
This affects the order in which the Views are displayed in the selection menus ("View > View with" sub-menu items and the "View" Toolbar drop-down list).
- ▶ **Expand and collapse the conditions for the activation of each View.**
These are displayed as "children-properties" of each View.

Once you have imported one or more Views you can set conditions that restrict (filter) the use of the Views.

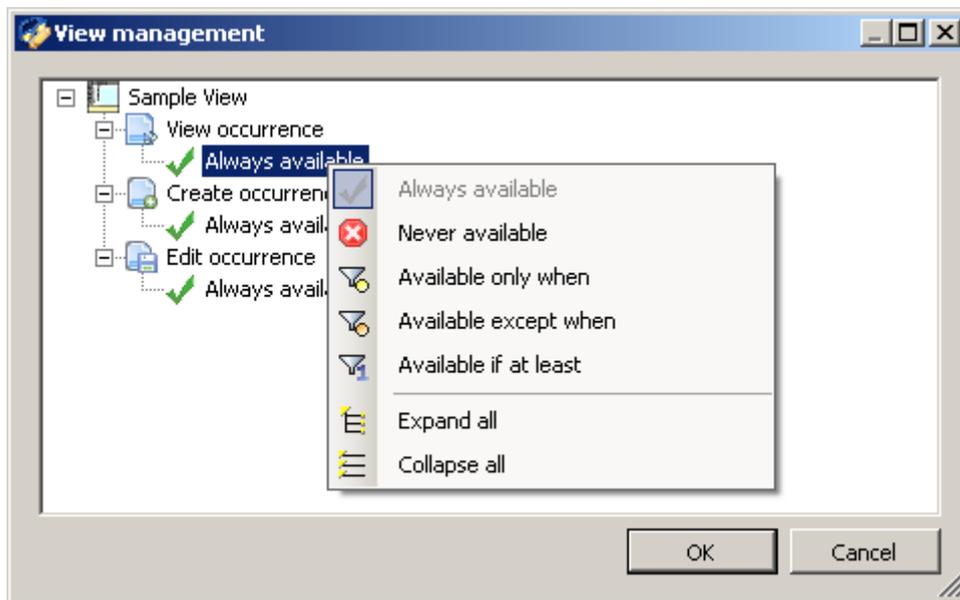
For instance some Views may be available only at Occurrence creation time, but not when subsequently editing them and other Views may be available only when displaying Occurrences but not when modifying them, etc. Furthermore a View can be available for reading or editing an existing Occurrence only if specific conditions on its Attribute(s) are satisfied.

The panel lists all the Views imported arranged in a tree-view. Each View is a parent node of three standard Occurrence Management events:

- ▶ **View** - when displaying an Occurrence.
- ▶ **Create** - when creating a new Occurrence.
- ▶ **Edit** - when modifying (editing) an existing Occurrence.

Availability Properties

To each of these child nodes you can apply availability properties, using the Right-click menu-items:



- ▶ **Always available** - the View Profile is available.
- ▶ **Never available** - the View Profile is not available.

The next menu-items are a set of logical operators to define conditions affecting the availability of the View.

- ▶ **Available only if** - the View is available only if all conditions are satisfied (i.e. a logical AND of the conditions to allow the action).
You have to specify one or more conditions ([see next section](#)).
- ▶ **Available unless** - the View is available unless all conditions are satisfied. I.e. if all conditions are met then the action is denied (i.e. a logical AND of the conditions to deny the action).
You have to specify one or more conditions ([see next section](#)).
- ▶ **Available if at least** - the View is available if one (or more) conditions are satisfied (i.e. a logical OR of the conditions to allow the action).
You have to specify one or more conditions ([see next section](#)).

The next section shows how to specify the conditions and the order in which they are evaluated.

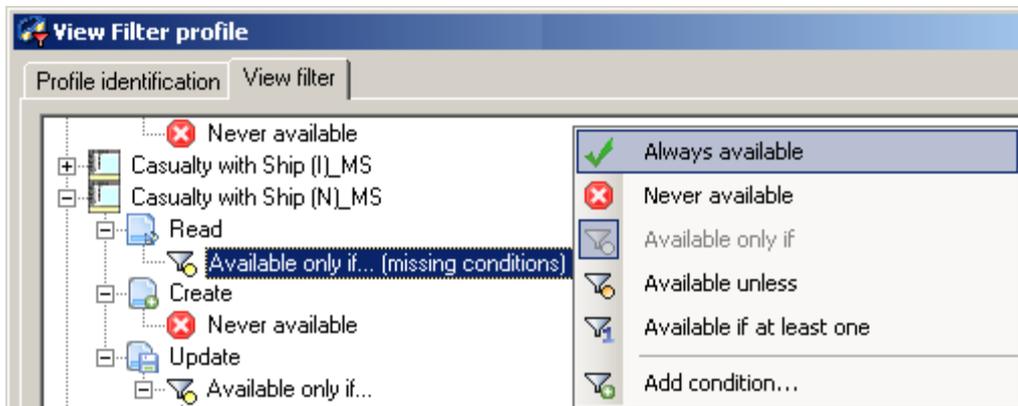
Specify Conditions on Views

Once you have selected one type of logical operator on the conditions (only if, unless, if at least one) you have to specify the conditions.

A "placeholder" condition is added by default as a child of the node representing the logical operator, and is labelled with the text "(missing conditions)".



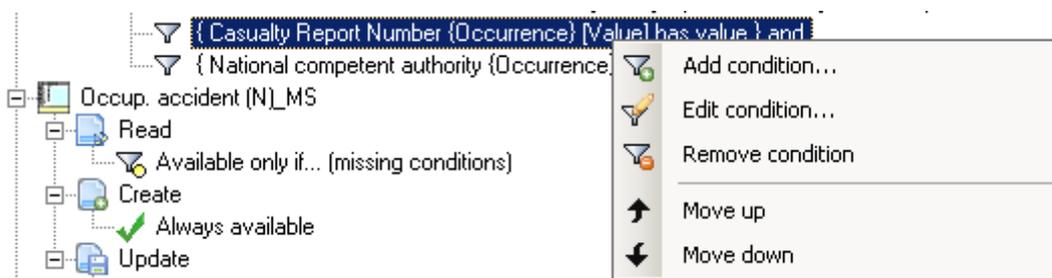
When you right-click on the condition placeholder you get an additional "Add condition" Right-menu item:



- ▶ **Add Condition...** - the "ECCAIRS Query Builder" dialog shows up and you can set a Query that specifies the condition. The newly created conditions is listed as a child node of the type of condition chosen.

When you right-click on items with a condition already set you get the following menu-items:

- ▶ **Edit Condition...** - to edit and existing condition with the "ECCAIRS Query Builder" ([see page 259](#)).
- ▶ **Remove condition** - to remove the condition.
- ▶ **Move up/Move down** - to change the order of evaluation of the conditions.



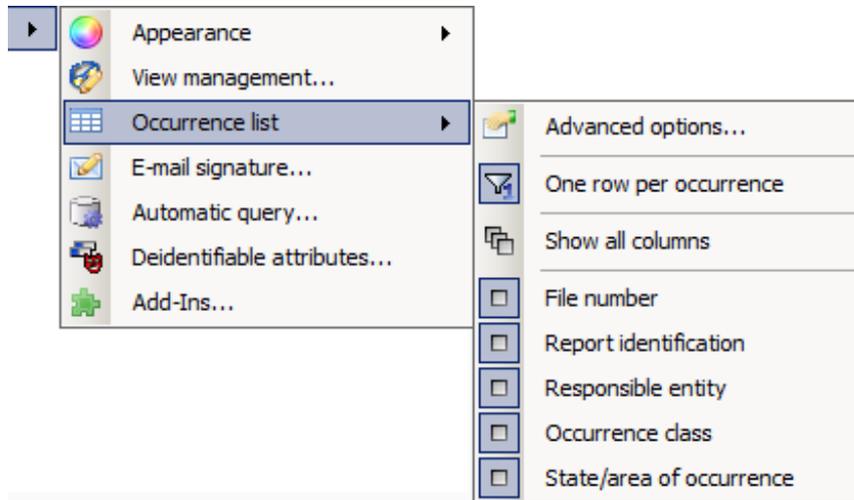
To exit click use the two buttons at the bottom:

- ▶ **OK** - to save the changes.
- ▶ **Cancel** - to discard the changes made so far.

4.6.7.3. VIEW > OPTIONS > OCCURRENCE LIST

The "Occurrence List" menu-item allows to select which Attributes are displayed as columns in the "Occurrence List" panel. By default the "Occurrence List" displays, for each Occurrences, a set of Attributes which have been defined for your Role in the Repository.

The "Occurrence List" menu-item displays a sub-menu.

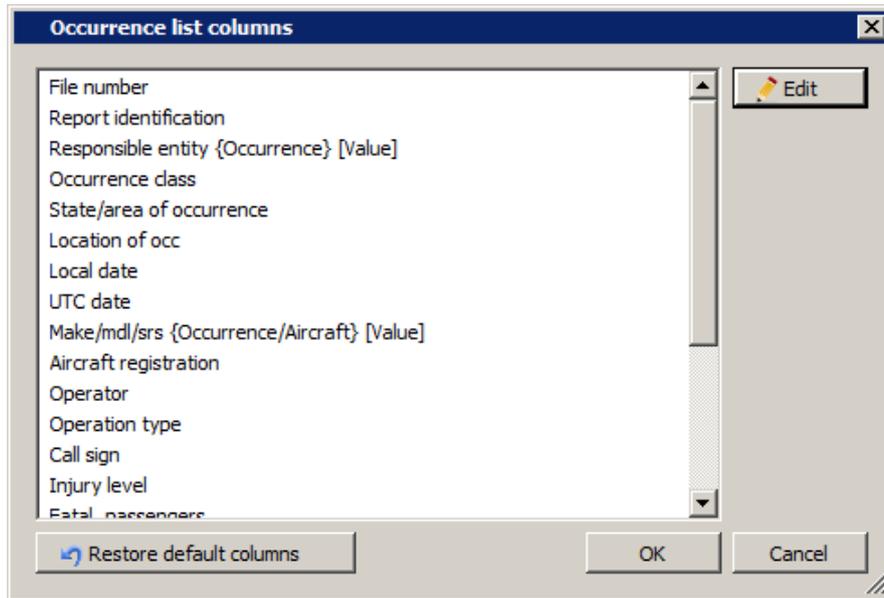


Sub-menu items:

- ▶ **Advanced options** - the set of Attributes to display in the "Occurrence List" panel is initially that foreseen for your Role in the Repository you are logged in. Selecting this menu-item you can change the set of Attributes, if the Browser Profile associated to the Role allows it. You can define the new set of Attributes using the "Occurrence List columns" that shows up (see below). The Attributes chosen are then listed as items at the bottom of the sub-menu.
- ▶ **One row per Occurrence** - there may be cases where some Attributes to be displayed belong to Topics which have multiple instances. For instance, in the Aviation domain, you may have the "aircraft registration" Attribute to display and more than one aircraft involved, i.e. more than one "Aircraft" topics defined in the Occurrence. Select/deselect this menu-item to choose whether to display them in a single line or with multiple lines within the Occurrence List.
- ▶ **Show all columns** - you can return to the default set of Attributes by selecting "Show all columns".
- ▶ **list of Attributes to display** - by default all the Attributes listed are displayed in the "Occurrence List" panel and a squared. You can remove/insert any of them by clicking on the corresponding menu-item.

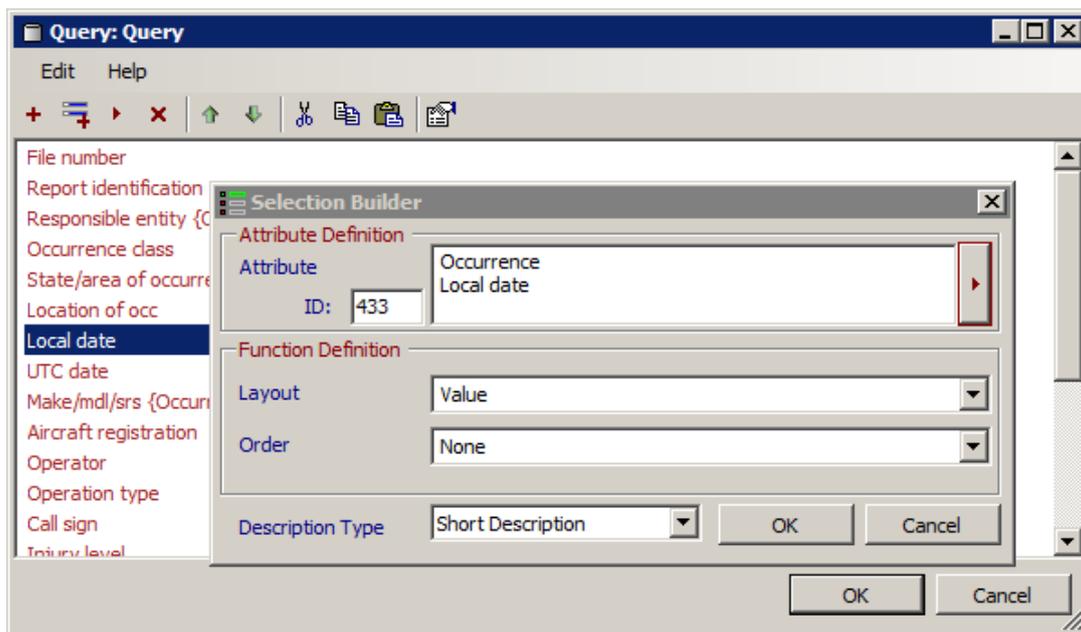
Advanced Options: selecting Attributes to display in Occurrence List columns

You can define the new set of Attributes to display using the "Occurrence List columns" dialog that shows up when selecting the " View > Options > Occurrence List > Advanced" menu-item.



Dialog items:

- ▶ **List panel** - (list box) the panel shows the Attributes that are currently displayed in the columns of the Occurrence List.
- ▶ **Restore Default Columns** - (button) click to restore the set of Attributes that have been pre-set for the User/Role and Repository you are logged in.
- ▶ **OK** - (button) click to save the changes made so far.
- ▶ **Cancel** - (button) click to discard the changes made so far.
- ▶ **Edit** - (button) click to show a "Query" dialog that let you change the Attributes to display, and their layout and display order.



The central panel shows which Attributes to display in Occurrence list, in the order in which they appear as columns in each Occurrence row.

You can work on this list by way of a Toolbar and an Edit menu, offering the same functions:

- ▶ **Add** - to add an Attribute to the list. You get a "Selection Builder" dialog where you can select the Attribute, through its Attribute Id. or via an Attribute browser dialog, and specify its Layout (e.g. which level to display for multiple-level Attributes, how to display a time/date Attribute, etc). You can also specify a sorting order, if any, on the Attribute values. The overall sorting for the Occurrence in the list is also determined by the order of the Attributes in the list (see "Move Up/Down" below).
- ▶ **Multiple Add** - to add multiple Attributes in one go to the list. You get a standard "Attribute Selection" dialog with standard multiple selection functions, filtering and sorting options ([see page 300](#)).
- ▶ **Edit** - same as "Add" but to edit the currently selected Attribute.
- ▶ **Remove** - to remove an Attribute.
- ▶ **Clear** - (only as menu-item, not in the Toolbar) clear the list, i.e. removes all the Attributes in the list.
- ▶ **Move Up/Down** - to move up/down in the list the Attribute, i.e. the corresponding column will be moved left/right in the Occurrence list row. If more than one Attributes in the list has a sorting options set (in the dialog shown for the "Add" or "edit" functions), then the order of the Attributes in the list will specify the overall sorting priority. The Occurrences will be sorted first by the "sorted" Attribute coming before in the list and then by the second "sorted", etc.
- ▶ **Cut, Copy, Paste** - cut, copy and paste Attributes (and the associated display layout, etc) in the list. You can use these functions to easily duplicate Attributes in the list, for instance.
- ▶ **Query Description** - (only in the Toolbar) to show the description of the query used to extract the Attribute to display.

To exit the dialog there are two buttons at the bottom:

- ▶ **OK** - to save the changes made so far.
- ▶ **Cancel** - to discard the changes made so far.

4.6.7.4. VIEW > OPTIONS > E-MAIL SIGNATURE

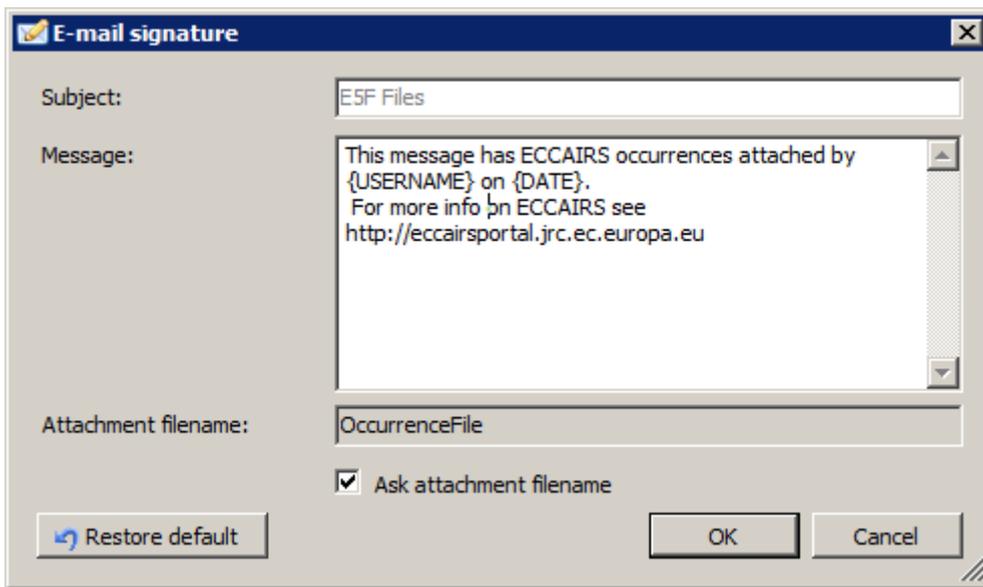
The ECCAIRS 5 Browser can send any number of Occurrences, selected in the "Occurrence List" pane, as an Occurrence file attached to an E-Mail message.

You can do this by selecting the "File > Send to > E-Mail" menu-item.

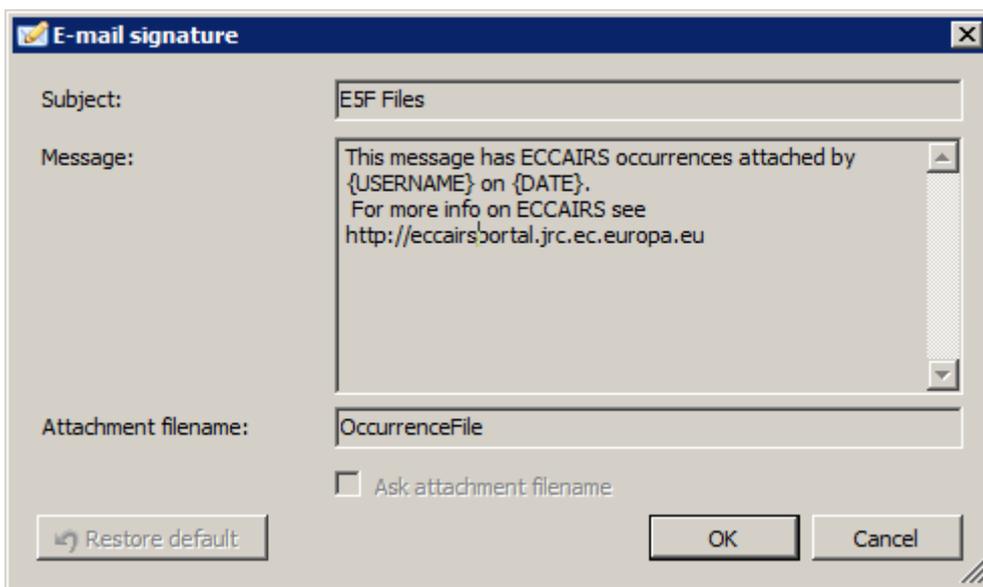
This function prepares the Occurrence file and opens a "New Message" window in your default E-Mail program, with the Occurrence file attached and a pre-defined E-Mail Subject and Body text.

You can customise the pre-defined E-Mail Subject and Body text by selecting the "View > Options > E-Mail Signature" menu-item.

An "E-Mail Signature" dialog shows up.



Note that, depending on the specific Repository configuration set, the editing of E-Mail Signature options may be disabled. In this case you get a read-only version of the dialog.



Dialog items:

- ▶ **Subject** - the Subject text-line of the message.
You will always be able to edit the Subject text within your own E-Mail program, before actually sending the message.
- ▶ **Message** - the text included in the Body of the message.
You will always be able to edit the message text within your own E-Mail program, before actually sending the message.
- ▶ **Attachment filename** - the name of the Occurrence file that will be generated and attached to the message. By default the name is "OccurrenceFile.e5f", or whatsoever file name set in the Repository for the profile associated to the User/Role currently logged in.
- ▶ **Ask Attachment filename** - by selecting this item you will be asked the file name to generate and attach, each time you actually send Occurrences via the "File > Send to > E-Mail" menu-item. This option may be disabled, depending on the specific Repository configuration set.

Click:

- ▶ **Restore default** - to reset the dialog items to the pre-defined values set in the Repository for the profile associated to the User/Role currently logged in.
- ▶ **OK** - to confirm the settings made.
- ▶ **Cancel** - to cancel the action.

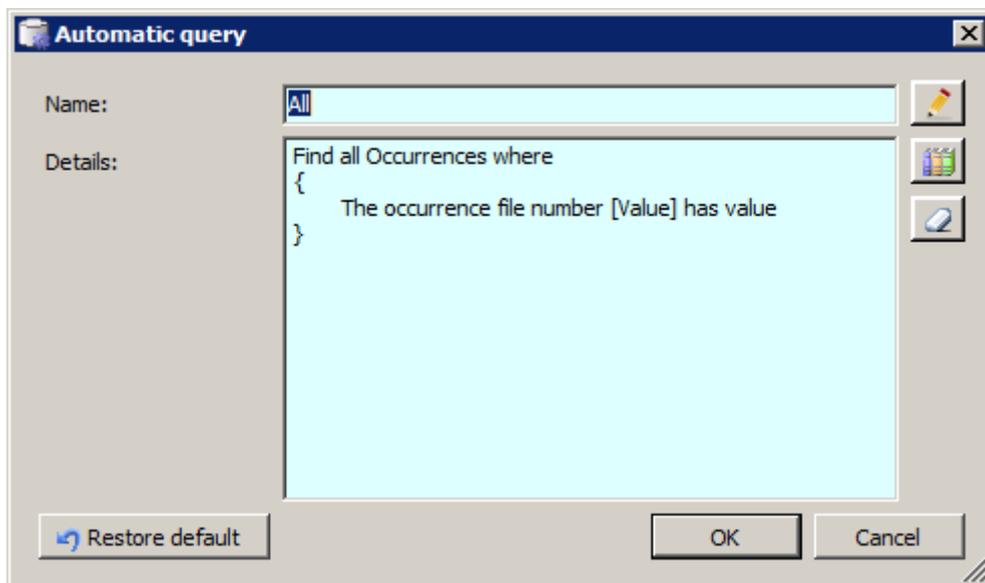
4.6.7.5. VIEW > OPTIONS > AUTOMATIC QUERY

When you start the ECCAIRS 5 Browser and you log on to a Repository with a database, or you subsequently (re)connect to a Repository using the "File > Connect" menu-item, the Browser program may execute automatically a pre-defined Query, if any has been set, and then displays the resulting Occurrences in the "Occurrence List" panel.

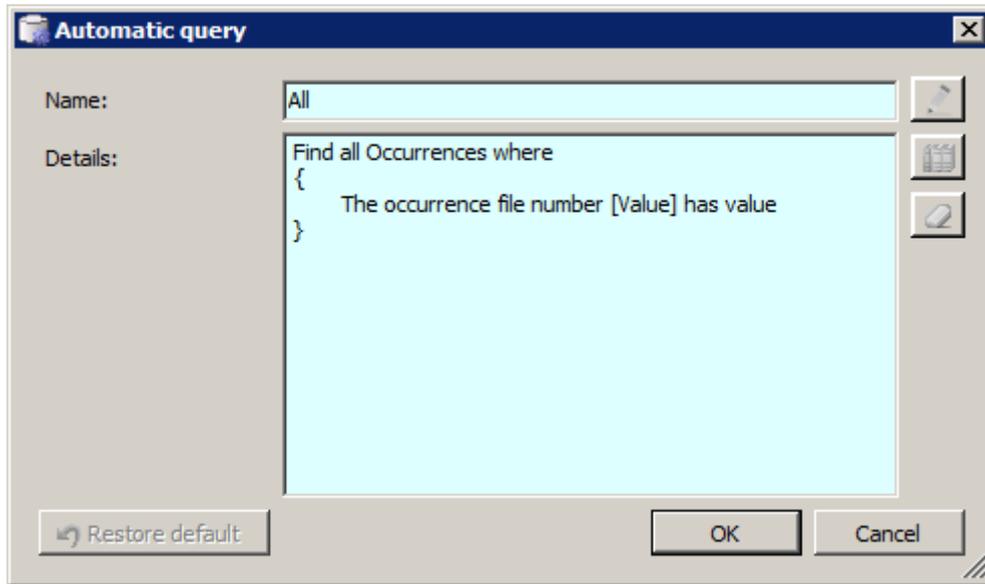
You can use this feature to automatically retrieve and show, for instance, the Occurrences entered yesterday, or during last week, or those still in a processing-state that you wish to monitor.

The "Automatic Query" is set in the Repository within the profile associated to the User/Role currently logged in.

However selecting the "View > Options > Automatic Query" menu-item you may edit or change the Query to be used, if the related profile in the Repository allows you to do so. An "Automatic Query" dialog shows up.



Note that, depending on the specific Repository configuration set, the Query editing may be disabled. In this case you get a read-only version of the dialog.



Dialog items:

- ▶ **Name** - the field shows either the name of the Query currently in use, if taken from a Query Library, of the generic text "(Query)" if the Query has been defined standalone on the spot (see below).

The icon-buttons on the right let you:

- **Edit the Query** - if you click the "pencil" icon-button the system displays the "Query Editing" window where you can:
 - Edit locally a Query already opened from a Query Library without the need to edit or define Queries using the Query Builder.
 - Create and edit standalone Queries, i.e. not stored in a Query Library.
 - **Open a Query Library** - if you click the "open" icon-button the system starts the ECCAIRS Query Builder application (see page) that let you access and define Query Libraries and Queries.
 - **Erase the Query** - if you click the "eraser" icon-button to erase the currently defined Query.
This way you can either get rid of the "Automatic Query" or then click the "pencil" icon-button to define a Query form scratch, for instance.
- ▶ **Details** - the explanation of the Query currently in use as "Automatic Query", where you see all the Criteria and the logical operators making up the Query.

Click:

- ▶ **Restore default** - to reset the dialog items to the pre-defined Query set in the Repository for the profile associated to the User/Role currently logged in.
- ▶ **OK** - to confirm the settings made.
- ▶ **Cancel** - to cancel the action.

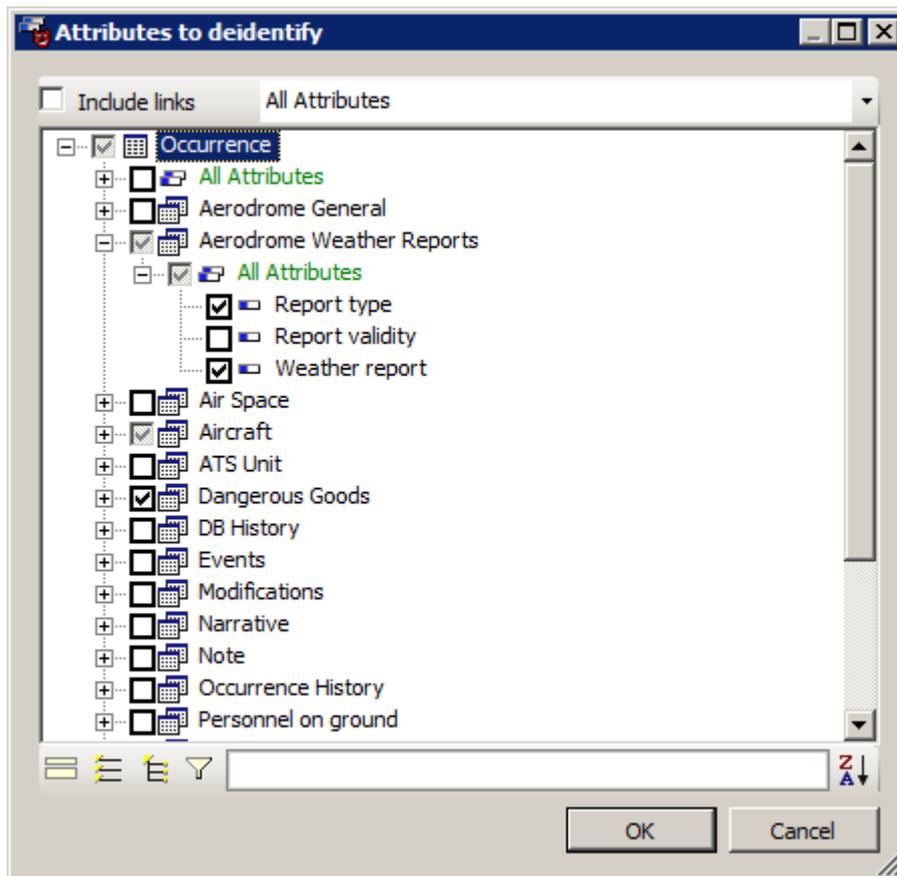
4.6.7.6. VIEW > OPTIONS > DEIDENTIFIABLE ATTRIBUTES

You can choose to save the Occurrences as de-identified in all the end-User applications of the ECCAIRS Reporting System that can export Occurrence data (e.g. Browser, Exporter, etc). This means that a number of Entities/Attributes/Values will be made unavailable in the saved Occurrences.

The User/Role within the Repository you are logged in specifies some preset Attributes which will be mandatorily de-identified, when you save them as deidentified.

However you can add extra Attributes to be de-identified.

The dialog which shows up allows to select Attributes in the Taxonomy tree.



In the "Attribute to deidentify" dialog there is a tree with check boxes for every Entity and Attribute. Browsing, filtering and sorting works as in the standard Attribute selection dialog ([see page 293](#)).

Checking an item de-identifies the corresponding Attribute.

All the set of Attributes of an Entity is displayed as a special Entity child node, marked in **green** colour and named "All Attributes".

Checking this node you select for de-identification all the Entity Attributes.

If you check the Entity node itself you select both all the Entity Attributes and also its child Entities (and corresponding Attributes) and its check box is marked.

If you check only some Attributes/child Entities of an Entity then its check box will be still marked but the background will be displayed in gray.

To exit the dialog there are two buttons at the bottom:

- ▶ **OK** - to save the de-identify selection made so far.
- ▶ **Cancel** - to discard the selections made so far.

4.6.7.7. VIEW > OPTIONS > ADD-INS

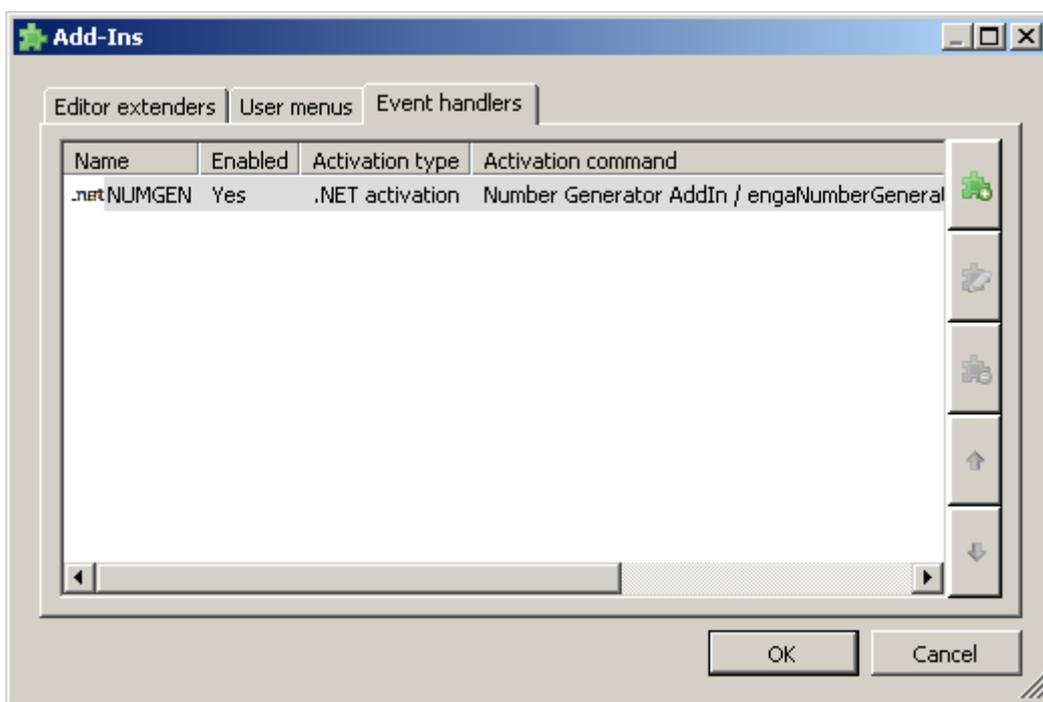
This same menu-item is also available in the "View" menu of the "Occurrence Edit" window, in addition to the Browser Main window.

The ECCAIRS 5 Browser can be connected to external software modules and applications in various ways.

In the "Add-Ins" dialog you can define which programs to activate when some Attributes are changed, some additional menu-items are selected and some events take place.

Note that, depending on the specific Repository configuration set, the editing of external module parameters may be available only to administrators.

Each type of activation has a corresponding tab-panel.



Dialog tab-panels:

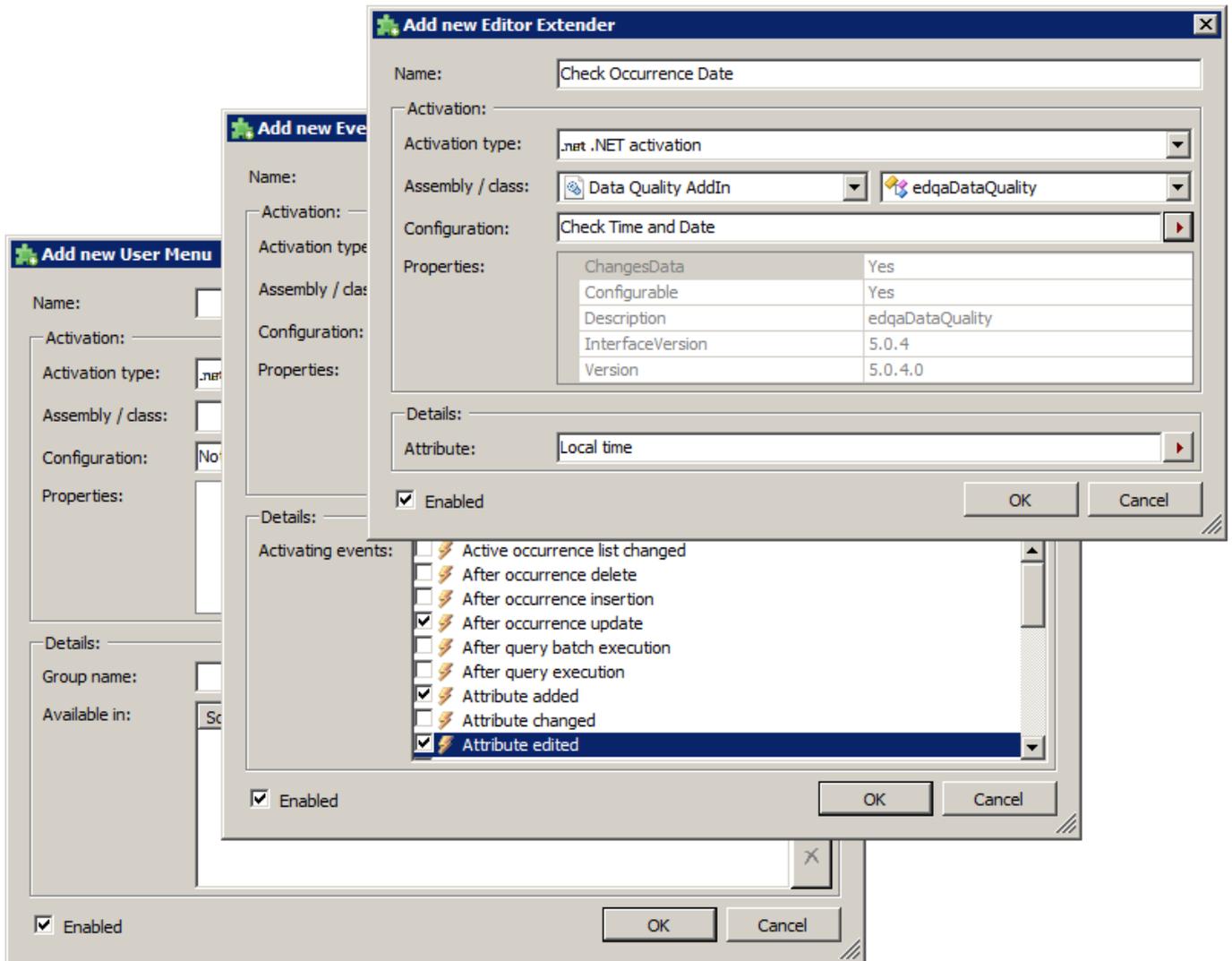
- ▶ **Editor Extender** - to activate Add-ins when editing a specific Attribute of the Occurrence.
- ▶ **User Menus** - to activate Add-ins when you select a corresponding item in the menu.
- ▶ **Event Handlers** - to activate Add-ins when some specified event takes place (e.g. after Query execution, when an Attribute added, before Occurrence deletion, before Occurrence insertion, etc).

Each panel shows the list of Add-Ins currently defined for the corresponding activation type.

Using the buttons on the right of the panel you can add, delete, edit external software modules to be invoked and also change the their activation order, when more than one module is defined for each category of activation.

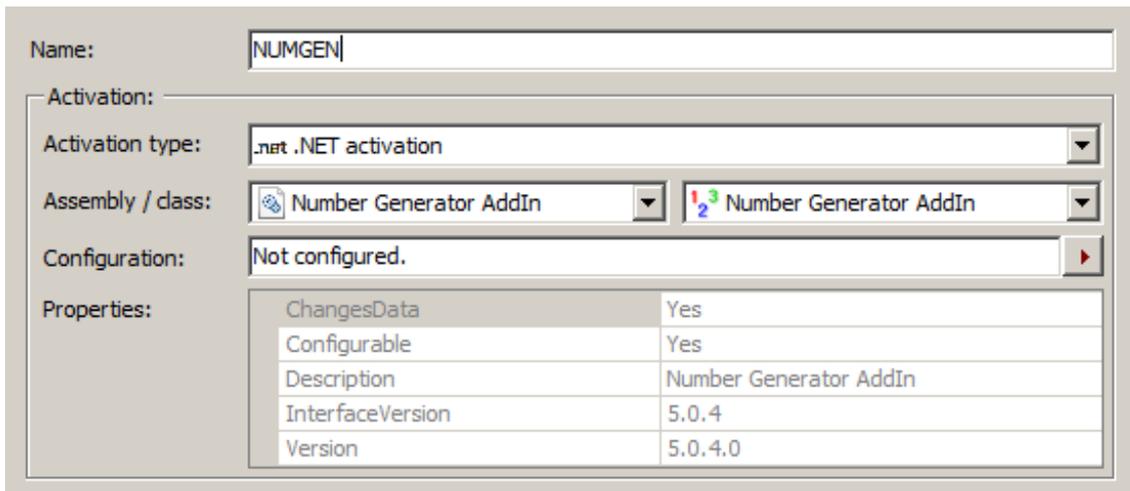
Note that, depending on the specific Repository configuration set, the editing of external module parameters may be available only to administrators.

When you add or edit a specific Add-In, an activation-type specific configuration dialog shows up.



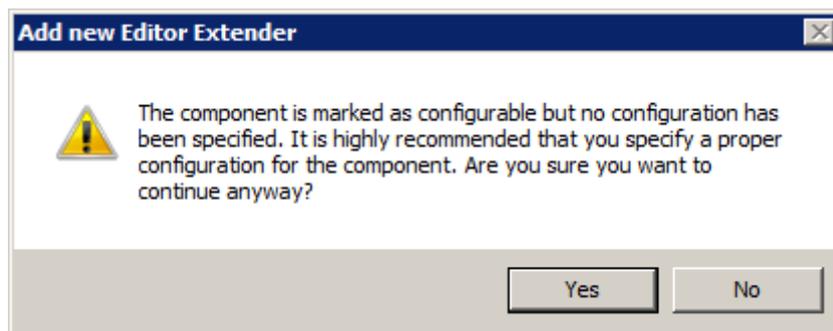
Depending on the type of activation you have to provide activation-related data.

However, for all the Add-Ins, whatever their activation type, you have to provide some basic software module information (in the "Activation" section top part of the Add/Edit dialog).



Software module information items:

- ▶ **Name** - a name for the Add-In.
- ▶ **Activation type** - the software framework in which the Add-In has been programmed to communicate with the ECCAIRS system: .NET or COM.
- ▶ **Assembly / class** - the Assembly (software library module) and the specific class (method) to invoke when the triggering action takes place. All the assemblies and corresponding classes are selectable via drop-down lists. The selections you should make are described in the installation/technical documentation provided with the Add-In or from the ECCAIRS System Administrator.
- ▶ **Configuration** - clicking on the corresponding "Edit" button on the right you get an activation-type specific dialog where you may configure the Add-In, whenever appropriate. The information to be provided in the dialog depends on the specific Add-In and is described in the Add-In technical documentation. If configuration is needed and you have not yet done so when closing the Add/Edit dialog, ECCAIRS displays a warning message.



- ▶ **Properties** - displays summary technical information on the Add-In.

Also, in the bottom of the Add/Edit dialog you find three other controls, shared by any type of activation-specific Add-In dialog:

- ▶ **Enabled** - choose this option to enable the Add-In. Each Add-In enabled by default. If you do not want the Add-In to be executed, without removing it, than you can deselect the check-box.
- ▶ **OK** - click the button to confirm the Add-In settings made.
- ▶ **Cancel** - click the button to discard the settings made.

In the central "Details" section of the Add/Edit dialog you can specify how/when the Add-In is triggered (activated).
The parameters to provide depend on the type of activation and are illustrated below.

Editor Extender

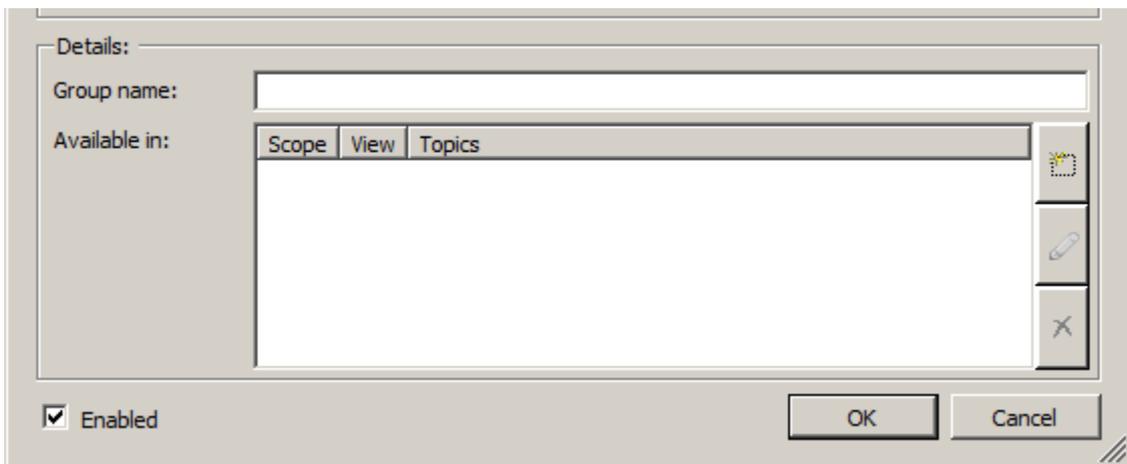
The Add-In is activated when you edit a specific Attribute in the Occurrence.



In the "Editor Extender" dialog that shows up when you add/edit modules you have to specify, in the "Detail" section, the Attribute whose editing will trigger the external software module. This is done via the standard Attribute selection dialog. ([see page 293](#)).

User menus

The Add-In is activated when you select a corresponding item in the menu. When you add/edit this type of Add-In a "User Menu" dialog shows up.



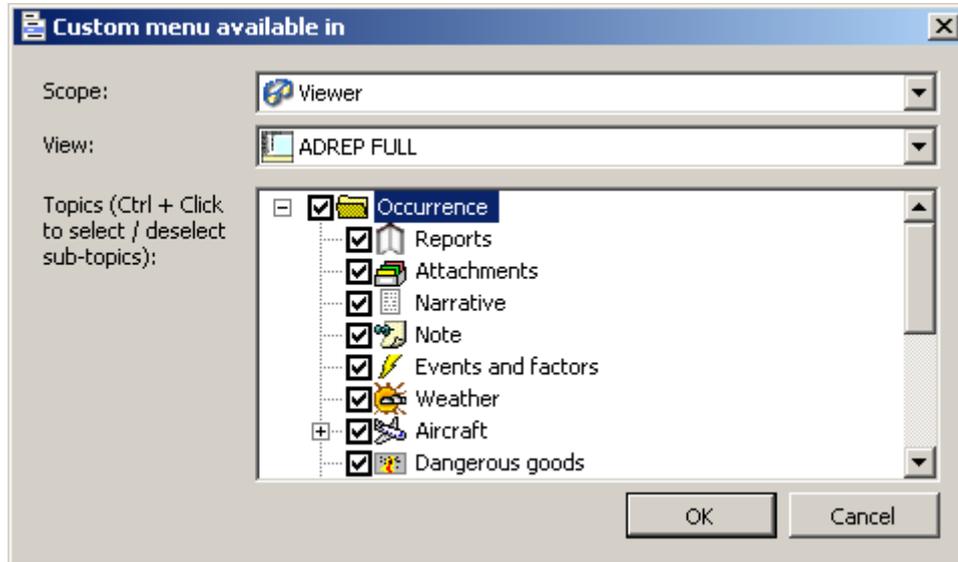
Dialog items:

- ▶ **Name** - Group Name - the module name that you specify in the "Name" field will also be the name of the menu-item that will be shown. This menu-item will be placed in the sub-menu "Add-Ins > Group Name", where "Group Name" is a text field that you specify in the Details section of the dialog.
In practice, if "Name" is set to "New menu-item 1" and "Group name" is set to "My New Menu Group", then the new menu-item is located in "Add-Ins > My New Menu Group > New menu-item 1" in the Browser Menu bar.



- ▶ **Available in** - You then have to specify, again in the Details section, when the Add-In menu-item will be available. You may have any number of availability rules. Each of them will be evaluated and if any of them is satisfied then the menu-item is displayed in the corresponding Scope/View and Topic context.

When you add/edit availability rules you get a "Custom menu available in" dialog.



Dialog items:

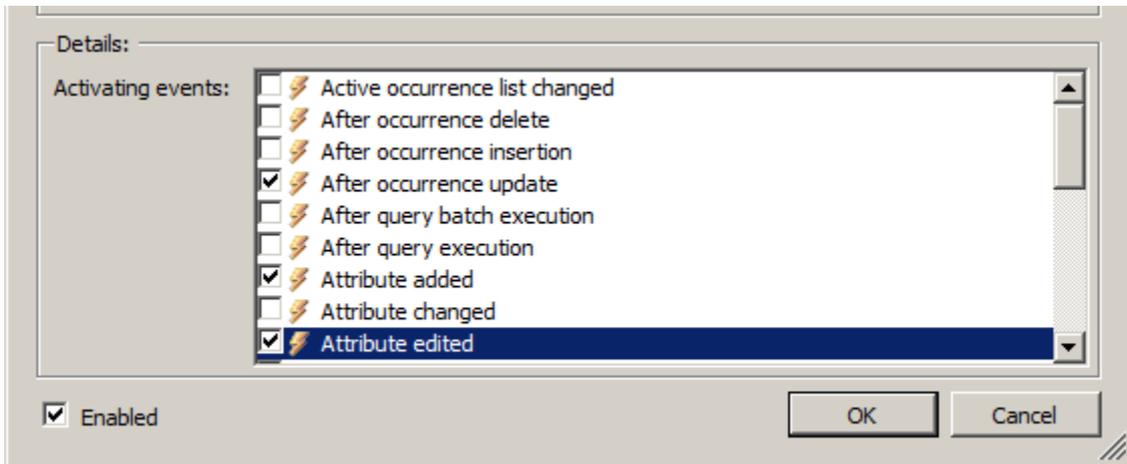
- **Scope** - specifies in which ambit the rule operates, i.e. within the Browser Main window, the Editor, etc.
By default you get "Any scope" selected.
- **View** - the specific View where the Add-In menu-item will be available, chosen among those available for your Role in the Repository you are logged in. This means that the Add-In menu-item may be displayed in some Views and not in other ones.
By default you get "Any view" selected.
- **Topics** - if you select a View then you have to specify for which of its Topics the Add-In menu-item will be available. By default the Occurrence (root Topic) and all its child Topics are selected. You can keep the keyboard "CTRL" key pressed when selecting Topics to select or deselect also their child Topics.

Click:

- **OK** - to confirm the availability settings.
- **Cancel** - to cancel the action.

Event handlers

The Add-In is activated when some specified event takes place. In the "Event Handler" dialog that shows up you have to select, in the "Details" section, the triggering events among the "Activation events" listed .



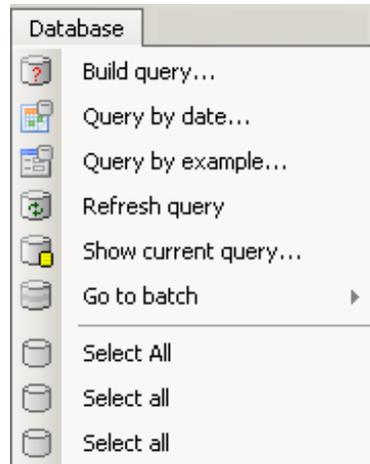
The events which can trigger the Add-In are: Active Occurrence List changed, After Occurrence delete, After Occurrence insertion, After Occurrence update, After Query batch execution (i.e when switching to another batch of results for the Query execution), After Query execution, Attribute added, Attribute edited, Attribute removed, Before Occurrence delete, Before Occurrence insertion, Before Occurrence update, Before Query execution, Creating new Occurrence, Editing Occurrence, Opening a file, Stop Occurrence editing, Viewing / retrieving Occurrence.

Note

A detailed description on how these Add-Ins should be used can be obtained from your ECCAIRS System Administrator.

4.7. DATABASE MENU

The Database menu includes functions related to Occurrences in the database.



Menu items:

- ▶ **Build Query**
- ▶ **Query by date**
- ▶ **Query by example**
- ▶ **Refresh Query**
- ▶ **Show current Query**
- ▶ **Go to Batch**
- ▶ **Re-run the Most Recently Used Queries**

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.7.1. DATABASE > BUILD QUERY

The ECCAIRS Browser selects the Occurrences from the database through Queries.

Whenever you select the "Database > Build Query" menu-item the system shows the "Query Builder" tool ([see page 259](#)). Within the "Query Builder" tool you can design or select the Query to execute.

To exit the "Query Builder" window there are two buttons at the bottom:

- ▶ **OK** - to execute the Query and display the Occurrences selected in the "Occurrence List" pane.
- ▶ **Cancel** - to exit the dialog.

The "Occurrence List" panel uses a specific display colour layout when showing the Occurrences resulting from database Query.

This colour layout is different from the one used when displaying Occurrences from files.

In case more Occurrences should result from the Query then the batch size parameter specified in the Repository you are logged in, the resulting Occurrences are displayed in batches.

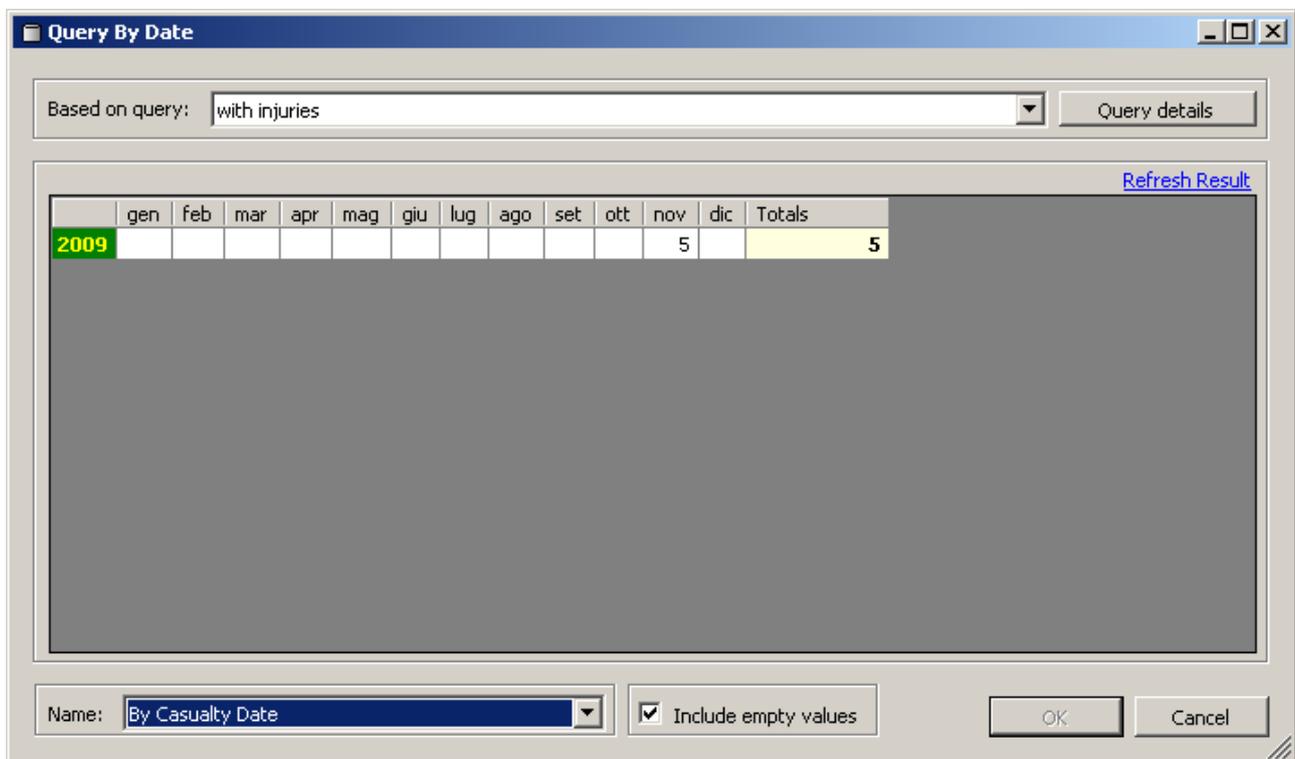
You can display and navigate through different batches of Occurrences using the "Database > Go to Batch" menu-item ([see page 80](#)).

4.7.2. DATABASE > QUERY BY DATE

The ECCAIRS Browser provides the facility to sort and plot in an date-based grid the count of Occurrences selected with a Query.

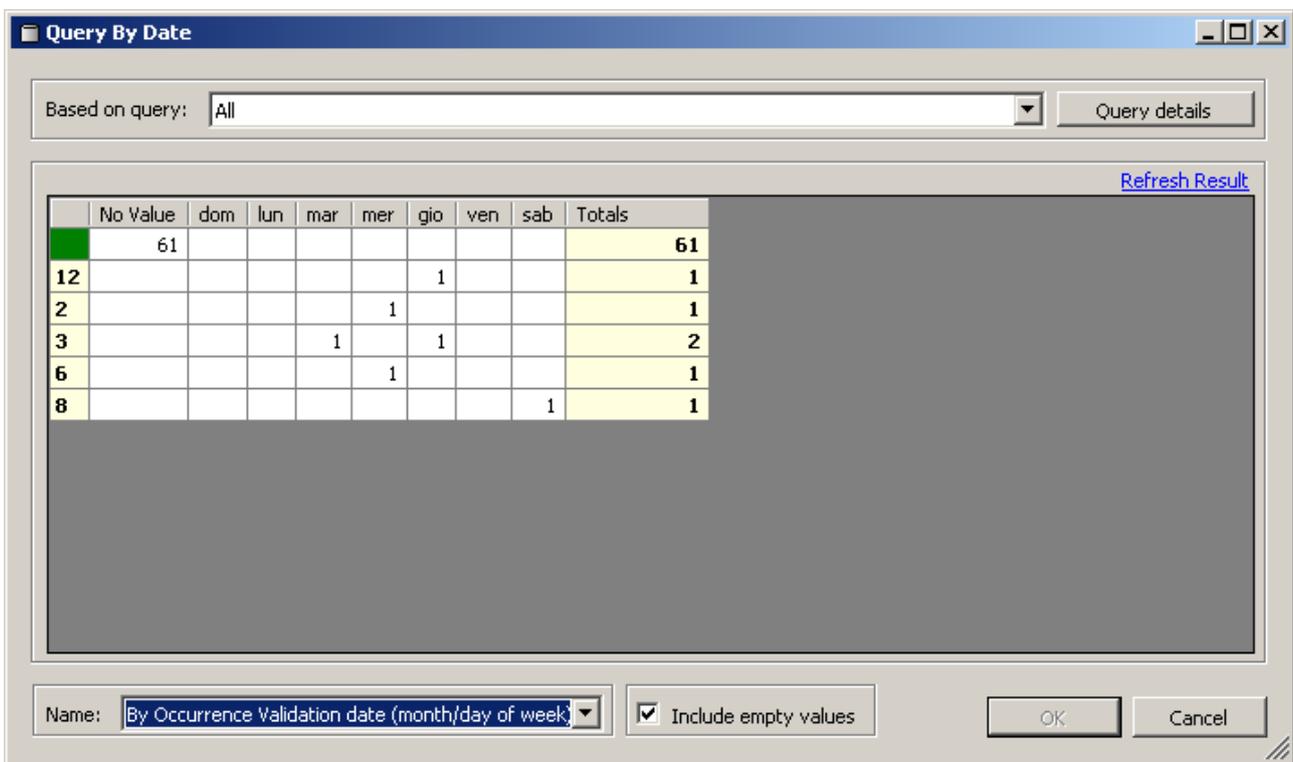
Proceed as follows:

- ▶ Select the "Database > Query by date" menu-item. The "Query By Date" dialog opens.



- ▶ Select a Query among those listed in the "**Based on Query**" drop-down list. The list includes all the Queries within the currently open Query Library. The related year/month plot is immediately displayed.
- ▶ Pushing the "**Query details**" button displays a dialog with a natural language explanation of the currently selected Query.
- ▶ You can select one of the pre-defined set of "type of date-Attribute and grid-layout" through the "**Name**" drop-down list. These have been set in the Repository manager for your User/Role profiles.
- ▶ If you click on a specific cell (i.e. for instance on a specific month and year combination) and then clicking on the "**OK**" button, the related Occurrences are loaded into the "Occurrence List" pane.

Choose the "**Include empty values**" option to include also Occurrences with an empty date Attribute in a separate column.



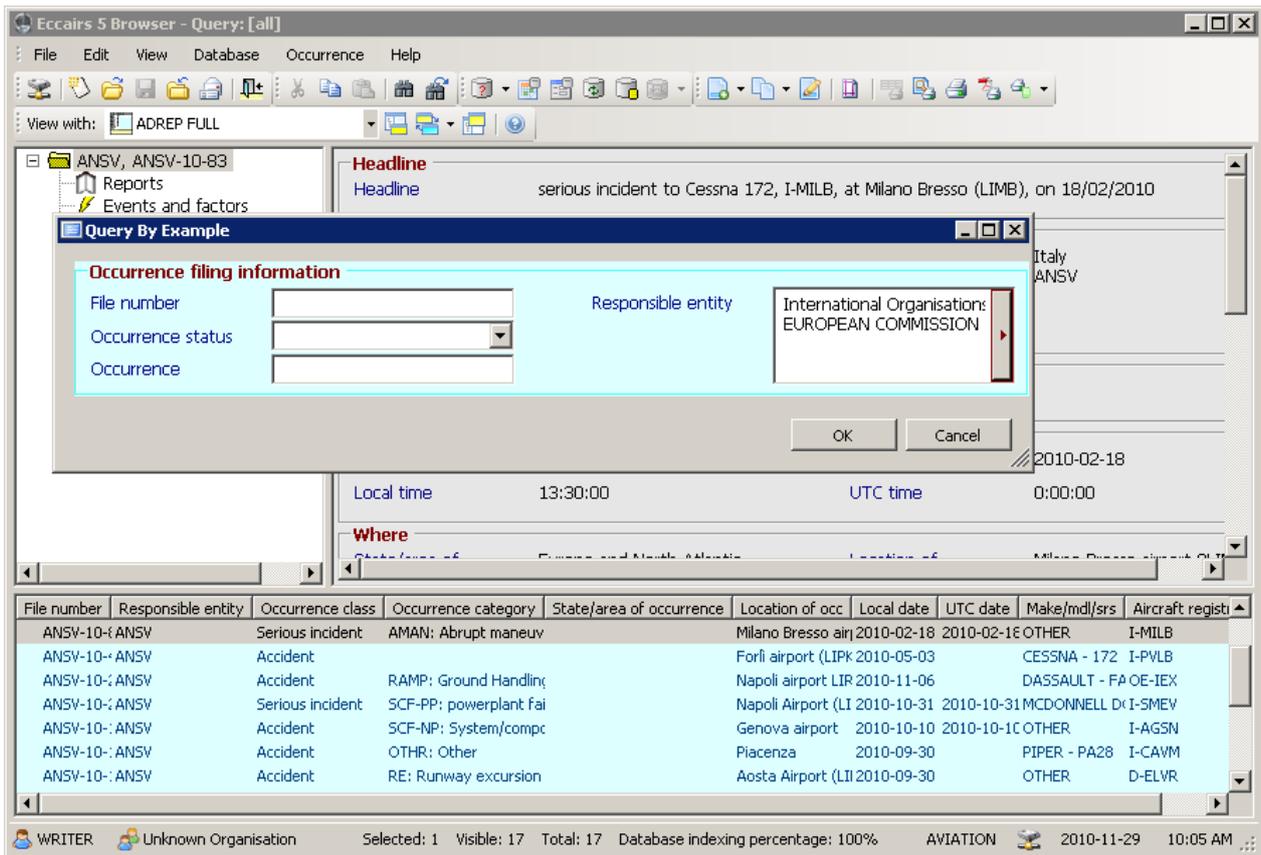
You can refresh the Query by clicking on the "**Refresh Result**" blue link below the "Query details" button. This may be useful in case the database data has changed in the meantime.

To exit the dialog click the "**Cancel**" button.

4.7.3. DATABASE > QUERY BY EXAMPLE

The ECCAIRS Browser provides the facility to make a Query by filling a template a Section with the data Values you wish to select. The Section used for the example-based Query is set in the Repository for the specific User/Role you are logged in.

The programs shows a "Query by Example" dialog with the Query Section template. Fill in the values you wish to use as selections for the Query. You do it exactly the same way as when editing an Occurrence.



To exit the dialog click:

- ▶ **OK** - to run the Query.
- ▶ **Cancel** - to exit the dialog.

4.7.4. DATABASE > REFRESH QUERY

Since the content of the ECCAIRS database Repository is dynamic and may be updated at the same time a User is executing a Query, the Query results may vary.

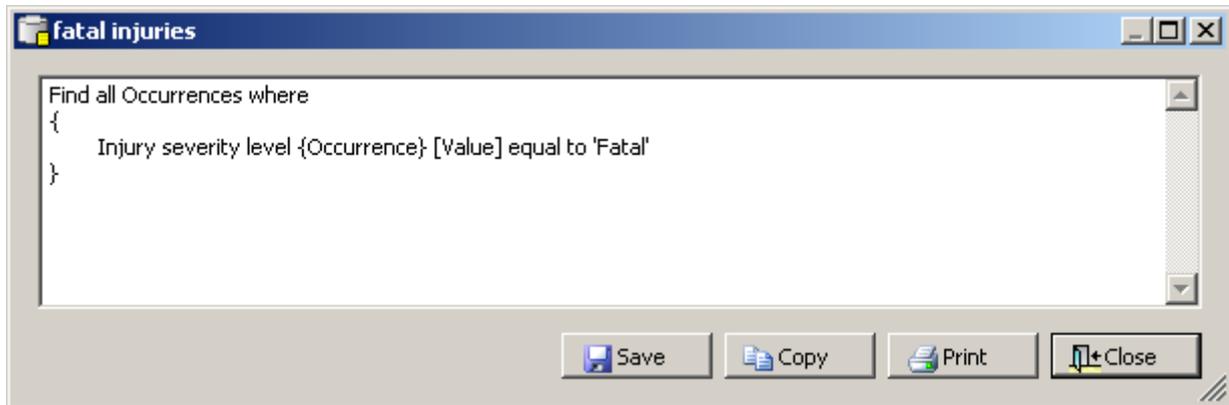
Selecting "Database > Refresh Query" menu-item will re-execute the last Query executed on the database.

In case more Occurrences should result from the Query then the batch size parameter specified in the Repository you are logged in, the resulting Occurrences are displayed in batches.

You can display and navigate through different batches of Occurrences using the "Database > Go to Batch" menu-item ([see page 80](#)).

4.7.5. DATABASE > SHOW CURRENT QUERY

Selecting this menu-item opens a "Query Explanation" dialog containing a natural language explanation of the current Query, i.e. the last Query executed.



You can use the buttons at the bottom to:

- ▶ **Save** - save the explanation text to a text file.
A standard file browser dialog let you set the folder and filename.
- ▶ **Copy** - save the explanation text to the clipboard.
- ▶ **Print** - print the explanation.
- ▶ **Close** - close the "Query Explanation" dialog.

4.7.6. DATABASE > GO TO BATCH

When a Query is executed, the matching Occurrences are listed in batches, i.e. the Occurrence List panel displays only a number of Occurrences equal (or at most equal) to the batch size. The batch size is specified in the Repository Profiles for the Role/Users of the Repository you are logged in. If not specified otherwise, the default size of the batch is 500 Occurrences.

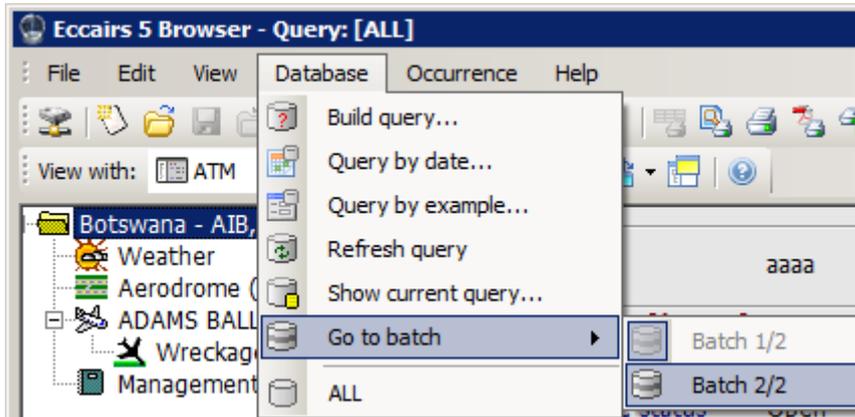
When operating with databases containing a large number of Occurrences, batch and warning settings may be very useful to optimise system resources and response times.

When the number of Occurrences returned by a Query exceeds the batch size specified in the Repository Profile, then you use:

- ▶ **Status bar Batch Numbering** - the Browser Status bar displays the total number of Occurrences, resulting from the Query, the number of Occurrences displayed in the Occurrence List, which corresponds at most to the batch size, the current batch number and the total number of batches (e.g. "Batch1/2" means batch 1 out of 2).

Selected: 1 Visible: 500 Total: 931 DB indexing: 100% Batch 1/2

- ▶ **Batch navigation via menu** - you can switch from one batch of results to another by selecting the "Database > Go to batch > Batch n/m" menu-items.



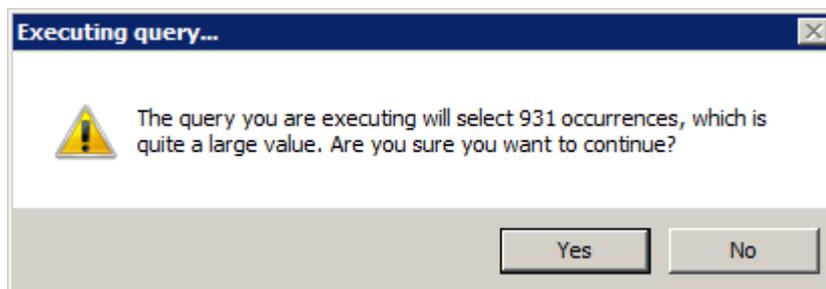
- ▶ **Sorting Occurrences in batches** - if you try to sort the Occurrences in the "Occurrence List" by clicking on the header of any of its columns, you may choose between "Sort all results" from the Query, i.e. sorting across all batches, or "Sort current batch", i.e. sorting the Occurrences displayed in the current batch only.

File number	Report identification	Responsible entity	Occurrence class	State/area o
74013150	Sort current batch		tes - NTSE Accident	United States
74013160	Sort all results		tes - NTSE Accident	United States
74013170			tes - NTSE Accident	United States
74013180	3 2955	United States	tes - NTSE Accident	United States
74013190	3 2962	United States	tes - NTSE Accident	United States

Additional Batch and Query result size options

The ECCAIRS System Administrator may have set, for the Repository you are logged in, some additional parameters to optimise the system when using batches with large amounts of Query results:

- ▶ **Count Occurrences and warn when it exceeds a value** - if this option has been set then whenever you execute a Query a preliminary Query matching "count" is performed. If the count exceeds a value specified in the Repository Profile then you get a warning dialog.



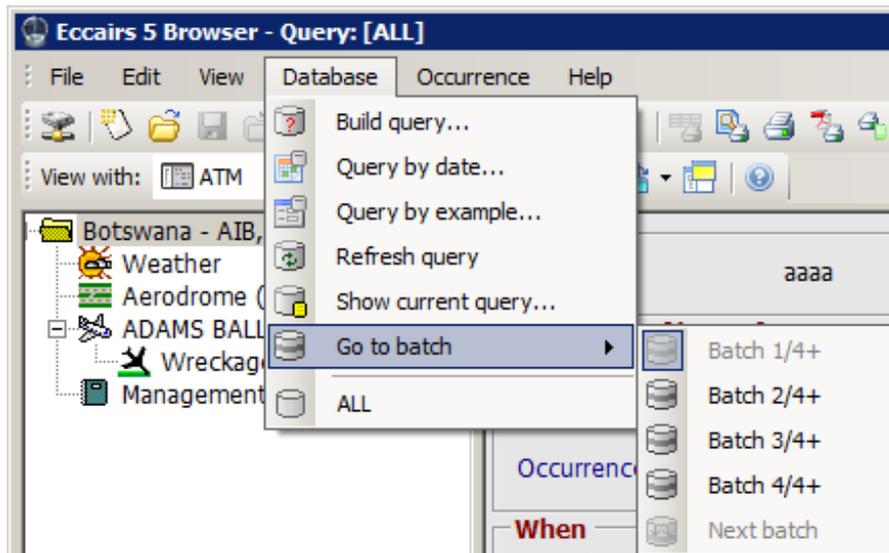
You can confirm with "Yes" and go on with the Query execution or cancel it by clicking on "No". This option turns out useful when you would get a very large number of Occurrences from the Query. Since the actual execution may take a considerable amount of time and system resources, you have the opportunity to cancel the current Query and reformulate it to get fewer results.

- ▶ **Full batch navigation quota** - (check box and numeric entry) if this option has been set and the Query returned ones exceeds the value specified for the Repository you are logged in, then only that number of Occurrences will be extracted and made available immediately. The "batch quota exceed" situation is reported in the ECCAIRS Browser both in the:

- **Status bar** - where the "+" sign is appended both to the "Total" number of Occurrences and to the number of "Batches".



- **"Database > Go to batch"** menu-item - where the "+" sign is appended to the batch items listed as sub menu-items.



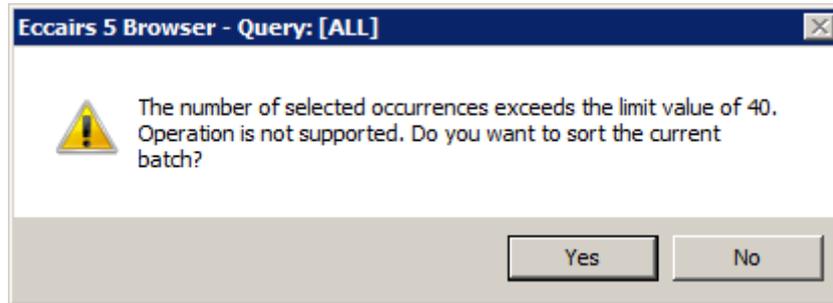
Selecting the **"Database > Go to batch > Next batch"** last menu-item causes the Browser to execute the next "chunk" of Query and get the next Occurrences (up to the quota value, again).

Using with the "Full batch navigation quota" option allows to use less system resources and get quicker response in case of large number of Occurrences resulting from a Query. But ECCAIRS has actually executed, and has ready available for the Browser, only a part of the Query results.

So if, in the Occurrence List", if you try to "sort all results" form the Query (rather than those shown in the current batch displayed),

File number	Report identification	Responsible entity	Occurrence class	State/area o
74013150	Sort current batch		es - NTSE Accident	United States
74013160	Sort all results		es - NTSE Accident	United States
74013170			es - NTSE Accident	United States
74013180 3 2955		United States - NTSE Accident		United States
74013190 3 2962		United States - NTSE Accident		United States

then you get an "operation non supported" warning and you can actually only sort Occurrences within the current batch (the sample warning dialog below refers to a "quota" value of 40).



4.7.7. DATABASE > RE-EXECUTE LAST QUERIES

The last items in the "Database" menu are the last four Queries executed.

Each item is identified by the Query name, as given in the Query Library.

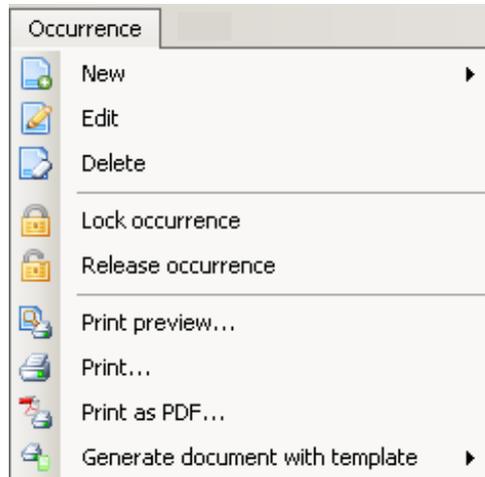
You can then easily re-run any of them by selecting the corresponding menu-item.

In case more Occurrences should result from the Query then the batch size parameter specified in the Repository you are logged in, the resulting Occurrences are displayed in batches.

You can display and navigate through different batches of Occurrences using the "Database > Go to Batch" menu-item ([see page 80](#)).

4.8. OCCURRENCE MENU

The Occurrence menu includes functions related to Occurrence editing and printing.



Menu items:

- ▶ **New**
- ▶ **Edit**
- ▶ **Delete**
- ▶ **Lock Occurrence**
- ▶ **Release Occurrence**
- ▶ **Print preview**
- ▶ **Print**
- ▶ **Print as PDF**
- ▶ **Generate Document with Template**

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.8.1. OCCURRENCE > NEW

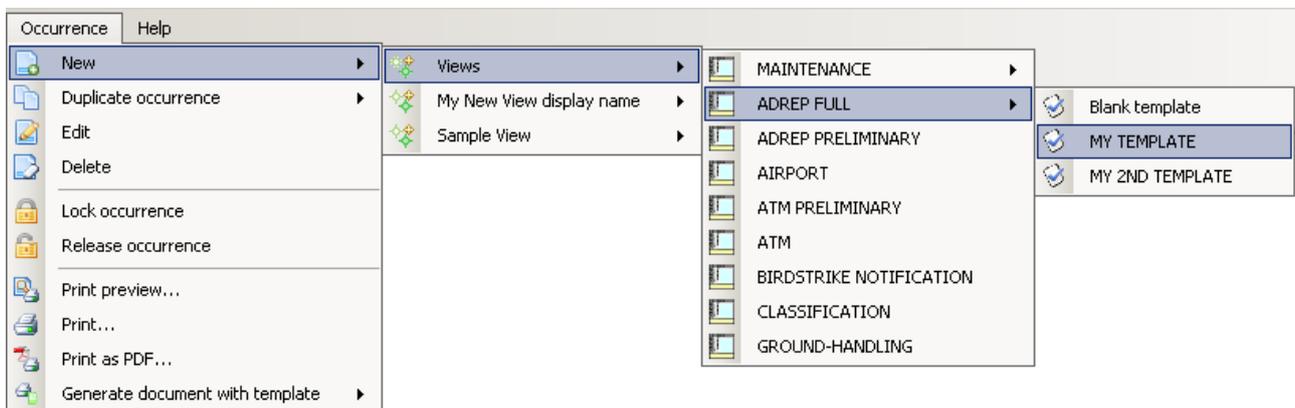
A new Occurrence can be created by selecting "Occurrence > New" from the Menu bar, or clicking on the corresponding icon-button in the Toolbar.

The new Occurrence may be is created with some predefined Attribute Values defined in a template, if any.

Templates for new Occurrences are associated to specific Views, i.e. may depend on the specific View selected. The Views are both those defined in the Repository and associated to your User/Role (and are grouped in the "Views" View-group sub-menu) and those defined by the User ([see page 60](#)).

The sub-menu system to select the template can be quite complex. You have to select:

- ▶ first select either "Views", to use the group of predefined Views, or the display name of any of the custom Views, if defined.
- ▶ then, for predefined Views, select the specific View.
For custom Views you have a single sub-menu item with the name of the View.
- ▶ then select one of the specific templates associated with the View.



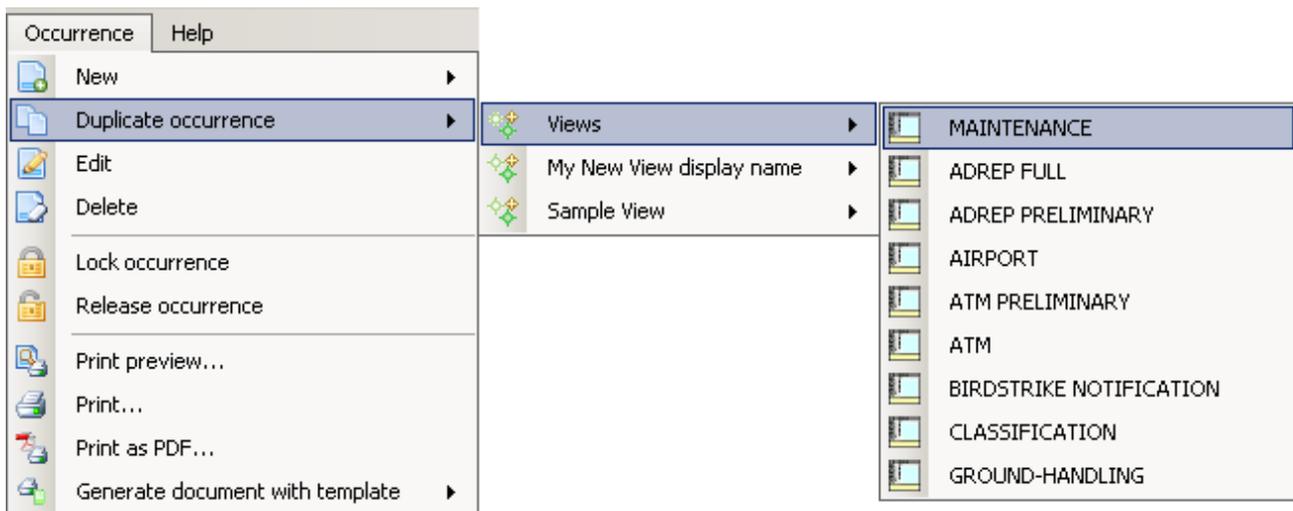
This creates a new Occurrence, with the default Attribute Values specified in the template and opens it in a separate Occurrence Edit window ([see page 95](#)).

4.8.2. OCCURRENCE > DUPLICATE

You can create a copy of an Occurrence by selecting the source Occurrence in the "Occurrence List" panel and then either the "Occurrence > Duplicate Occurrence" menu-item, or the corresponding icon-button in the Toolbar.

The duplicated Occurrence is created and opened using a specific View.

So you have to use a 2-level sub-menu to select a View among those listed in the "Occurrence > Duplicate" sub-menu items.



The Views available are both those defined in the Repository and associated to your User/Role (and are grouped in the "Views" View-group sub-menu) and, if any, those defined by the User, which are grouped under other View-group sub-menus.

The system creates a new Occurrence and opens it within the Occurrence Edit window ([see page 95](#))., This duplicated Occurrence contains exactly the same Attribute Values as the source one, except for a set of special Attributes specified in the Taxonomy used by the Repository.

4.8.3. OCCURRENCE > EDIT

An Occurrence can be modified either selecting "Occurrence > Edit " or the "Right-click-menu > Edit" menu-items, or even by double-clicking on an Occurrence in the "Occurrence List" pane.

This opens the Occurrence Edit Window ([see page 95](#)).

A modified Occurrence is always stored back in the originating source, either the database or the Occurrence file from which it was taken.

During editing, the Occurrence in the database is automatically locked for other Users: they can display the Occurrence but cannot edit it.

When editing is over the Occurrence lock is automatically released.

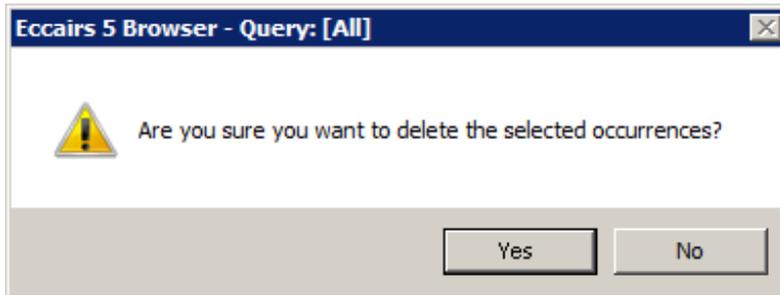
You can also manually lock an Occurrence and release the lock. You do this with the "Occurrence > Lock" and "Occurrence > Release" menu-items.

4.8.4. OCCURRENCE > DELETE

You can delete the selected Occurrences by either the "Occurrence > Delete" menu-item or, within the "Occurrence List" pane, the "Right-click > Delete" menu-item.

If you have enabled the "Recycle Bin" feature then the Occurrences deleted are kept in the Browser Recycle Bin. You can recover them up to the moment you will empty Recycle Bin. You access the Recycle Bin by selecting the "File > Recycle bin" menu-item ([see page 45](#)).

A dialog asks you to confirm before actually performing the Occurrence(s) removal.



Click:

- ▶ **OK** - to confirm the Occurrence(s) removal.
- ▶ **Cancel** - to close the dialog without removing any Occurrence.

4.8.5. OCCURRENCE > LOCK OCCURRENCE

Automatic Occurrence Lock

When creating or modifying Occurrences in the database, ECCAIRS automatically puts a lock on the Occurrence. The User can also manually put and release locks on selected Occurrences.

The lock prevents other Users to edit or delete the same Occurrence at the same time.

In the "Occurrence List" panel the locked Occurrence is marked with a key-shaped icon and a specific colour. The lock-marking colour is different when the lock has been put by a different ECCAIRS User from the one who is currently logged in, and hence cannot be released by the current User. Positioning the mouse over locked Occurrences in the "Occurrence List" pane, displays additional data on the Occurrence lock: the author of the locking and the initial locking date and time.

File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration
200912062	CAA	TURB: Turbulence encounter	737	G-FDZG
200913871	CAA		737	EI-EBZ
20091		Locked by 'REPOSITORY\WRITER' on 14/09/2010 10.45.46		ZZ-UNKNOWN
200911862	CAA	RI-VAP: Runway incursion - vehicle, aircraft or person	A319	HB-ZZ
200912334	CAA	SCF-NP: System/component failure or malfunction [non-powerplant]	737	G-EZJW
200912664	CAA		737	EI-DHS
200912497	CAA	LOC-I: Loss of control - inflight	737	EI-DAL

The colours used to mark the lock can be customised in the Appearance tab of the "View > Options > Appearance" menu-item.

After the editing completion the Occurrence is automatically released.

User-requested Occurrence Lock

Occurrence locking can also be explicitly set by the User, even when no editing is in course, to prevent other Users from modifying the Occurrence.

This is achieved by selecting the Occurrence(s) and selecting the "Occurrence > Lock Occurrence" menu-item.

The Occurrence(s) remains locked until the User releases the Occurrence, even if the locking User disconnects from the Repository or logs off the system.

4.8.6. OCCURRENCE > RELEASE OCCURRENCE

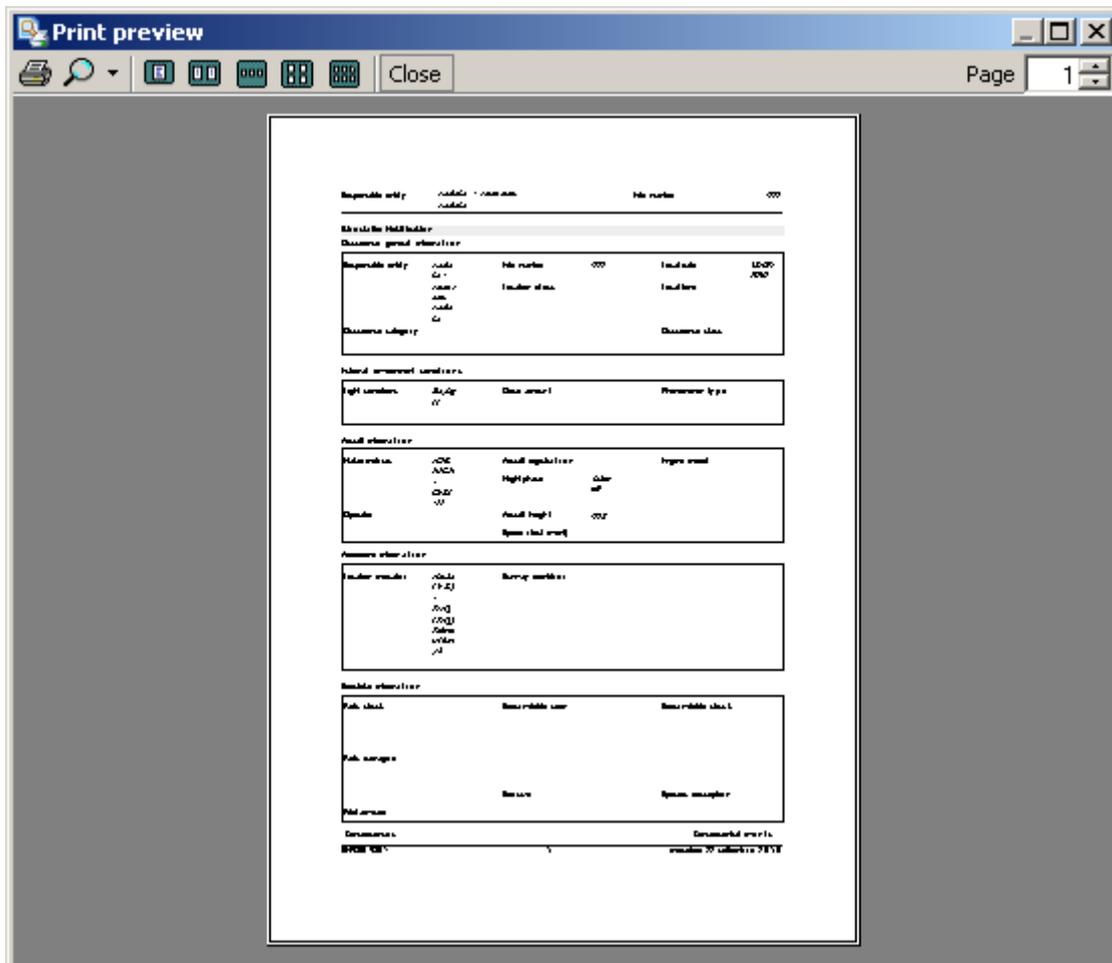
The locked Occurrence can be released, by the same User who put the lock, by selecting the Occurrence and selecting the "Occurrence > Release Occurrence" menu-item.

4.8.7. OCCURRENCE > PRINT PREVIEW

The "Occurrence > Print Preview" menu-item let you preview the printout of all the Occurrence sections that have been filled-in in the currently selected Occurrence.

The layout is the same as that illustrated for the "Occurrence > Print" menu-item, and you will be able to command a print directly from the preview as you would have done in that function.

A "Print preview" dialog displays the printout preview.



Print Preview dialog

In the "Print preview" dialog there are number of options are available through the Toolbar and the navigation bar at the top.



You can:

- ▶ **print** - invoke the standard Windows print dialog, where you can choose printer and options.
- ▶ **zoom** - select the zoom level with the drop-down selector.
- ▶ **1 page** - preview 1 page at a time.
- ▶ **2 pages** - preview 2 page at a time.
- ▶ **3 pages** - preview 3 page at a time.
- ▶ **4 pages** - preview 4 page at a time.
- ▶ **6 pages** - preview 6 page at a time.
- ▶ **close** - close the "Print preview" dialog.
- ▶ **page select** - a box with the number of the page being previewed.

To go to a specific page you can:

- use the step up/down controls at the right of the page-number box to move to the next/previous page.
- enter a page number in the page-number box.

You can also use the "**Page Up**" and "**Page Down**" keyboard keys to move to the next/previous page.

4.8.8. OCCURRENCE > PRINT

The "Occurrence > Print" menu-item allows to print all the Occurrence Sections that have been filled-in for the currently selected Occurrences.

This menu item is also available in the "File" menu of the "Occurrence Edit" window, in addition to the Browser Main window.

Responsible entity	<i>Australia - Aircservices Australia</i>		File number	<i>999</i>		
Occurrence						
Occurrence filing information						
File number	<i>999</i>	Responsible entity	<i>Australia - Aircservices Australia</i>			
Occurrence status	<i>Open</i>					
Occurrence moderator						
When						
Local date	<i>13/02/2010</i>	UTC date				
Local time		UTC time				
Attachments						
Attachments						
Name	Description	Type	Size	Last modified	Organization	Repository
<i>cuby_2.jpg</i>		<i>image/jpeg</i>	<i>69309</i>	<i>12/02/2010 8.52.40</i>	<i>Softeco</i>	<i>E43 TEST</i>
Weather						
General weather conditions						
Weather conditions	<i>VMC</i>	Weather relevant	<i>No</i>			
Light conditions	<i>Daylight</i>	Visibility	<i>22 m</i>			
Winds						
Wind direction		Wind description	<i>Variable</i>			
Wind speed		Speed measured at	<i>Altitude</i>			
Wind gusts		Maximum gust	<i>22 kt</i>			
Temperature						
Air temperature	<i>22 C</i>	Dew point	<i>22 C</i>			
Aircraft						
Aircraft identification						
Make/mdl/srs	<i>ACES HIGH - CUBY - II</i>		State of registry			
			Aircraft registration			
Year built		Call sign				
Aircraft serial number		Flight number				
REPOSITORY		1	mercoledì 22 settembre 2010			

The printing layout is preset and is bound to the View currently selected: each View may have a different printing page layout. The picture below shows a different printing layout bound to another View ("Bird strike notification" in this example).

Responsible entity	<i>Australia - Airservices Australia</i>	File number	<i>999</i>
Birdstrike Notification			
Occurrence general information			
Responsible entity	<i>Australia - Airservices Australia</i>	File number	<i>999</i>
		Location of occ	<i>13/02/2010</i>
Occurrence category		Occurrence class	
External environment conditions			
Light conditions	<i>Daylight</i>	Cloud amount	Phenomenon type
Aircraft information			
Make/mdl/srs	<i>ACES HIGH - CUBY - II</i>	Aircraft registration	Engine model
		Flight phase	<i>Take-off</i>
Operator		Aircraft height	<i>44 ft</i>
		Speed (first event)	
Aerodrome information			
Location indicator	<i>Alaska (U.S.) - PAAQ (PAQ): Palmer/Municipal, Ak.</i>	Runway identifier	
Birdstrike information			
Parts struck		Birds/wildlife seen	Birds/wildlife struck
Parts damaged		Bird size	Species description
Pilot advised			
Consequences		Consequential events	
REPOSITORY	1	mercoledì 22 settembre 2010	

The function invokes the standard Windows print dialog, where you can choose printer and options.

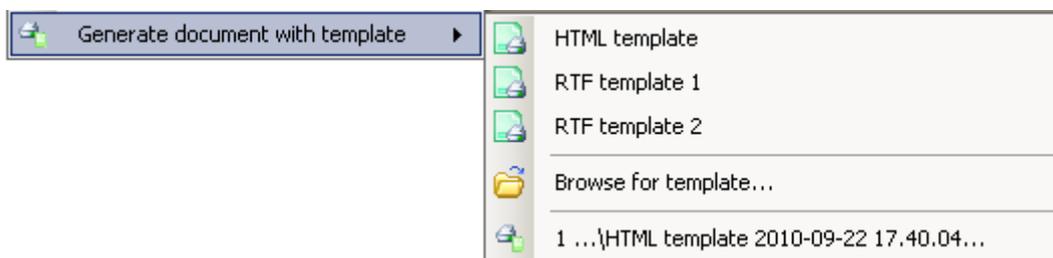
4.8.9. OCCURRENCE > PRINT AS PDF

The "Occurrence > Print as PDF" menu-item works Same as the "Occurrence > Print" menu-item.

The only difference is that you have to enter a name and select a folder for the PDF file that is being created using the standard "Save" dialog.

4.8.10. OCCURRENCE > GENERATE OCCURRENCE DOCUMENT WITH TEMPLATE

You can generate a document with data from the Occurrences selected in the "Occurrence List" panel using any of the preset templates available as submenu-items.



The templates listed are preset in the profile associated to the User/Role currently logged in the Repository.

You can anyway use your own templates selecting the "Occurrence > Generate Occurrence document with template > Browse for template" sub menu-item.

Instructions on how to build templates are included in dedicated documentation, normally available in the ECCAIRS portal site:

<http://eccairsportal.jrc.ec.europa.eu>

You can also directly select the last used template file, listed as last item.

4.9. ADD-INS MENU

The ECCAIRS 5 Browser can be connected to external software modules called Add-Ins.

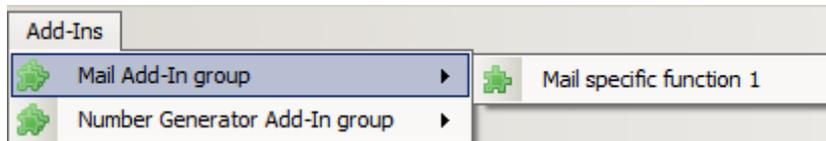
Depending on the configuration set on the Repository for the Role/User you are logged in, you may be have some "Add-Ins" that you can execute when you select a specific additional menu-item.

The Add-Ins menu-items can also be made available only for specific Views, Topics or operating mode (read or edit mode).

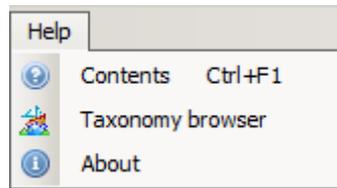
Note that, depending on the specific Repository configuration set, you may also be able to modify the configuration for the Add-Ins using the "View > Options > Add-Ins" menu-item in the Browser itself ([see page 70](#)).

In any case, if Add-Ins are available, the Add-Ins menu is displayed in the Menu bar.

It has sub-menus grouping menu-items specific to each Add-In.



4.10. HELP MENU



Menu items:

- ▶ **Contents**
- ▶ **Taxonomy Browser**
- ▶ **About**

4.10.1. HELP > CONTENTS

Displays online help for the application you are running.

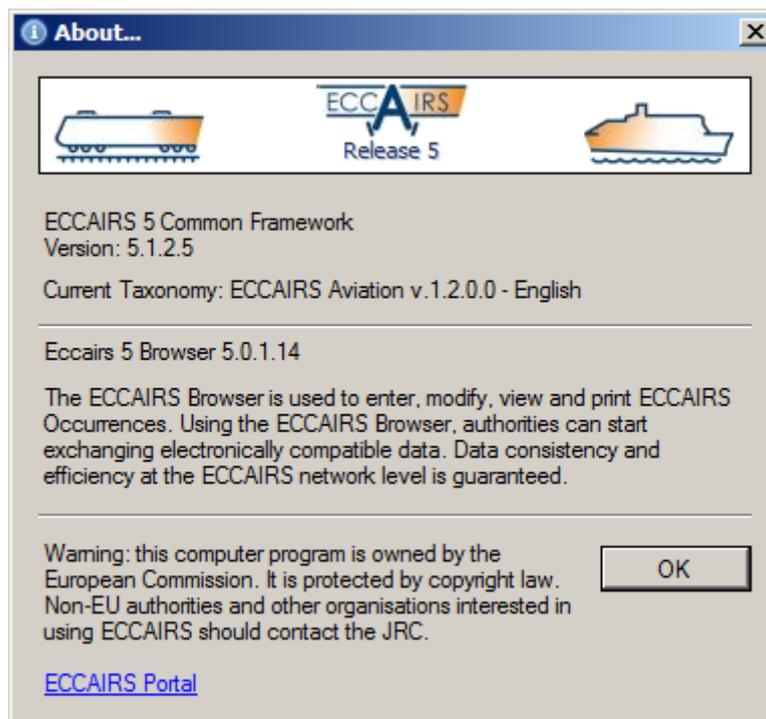
You can also invoke the online help at any time by pressing the "CTRL" and "F1" keyboard keys at the same time.

4.10.2. HELP > TAXONOMY BROWSER

Starts the Taxonomy Browser application, which allows you to examine in a separate window all details of the Taxonomy in use. This can be useful while editing Queries, selecting and editing Attributes.

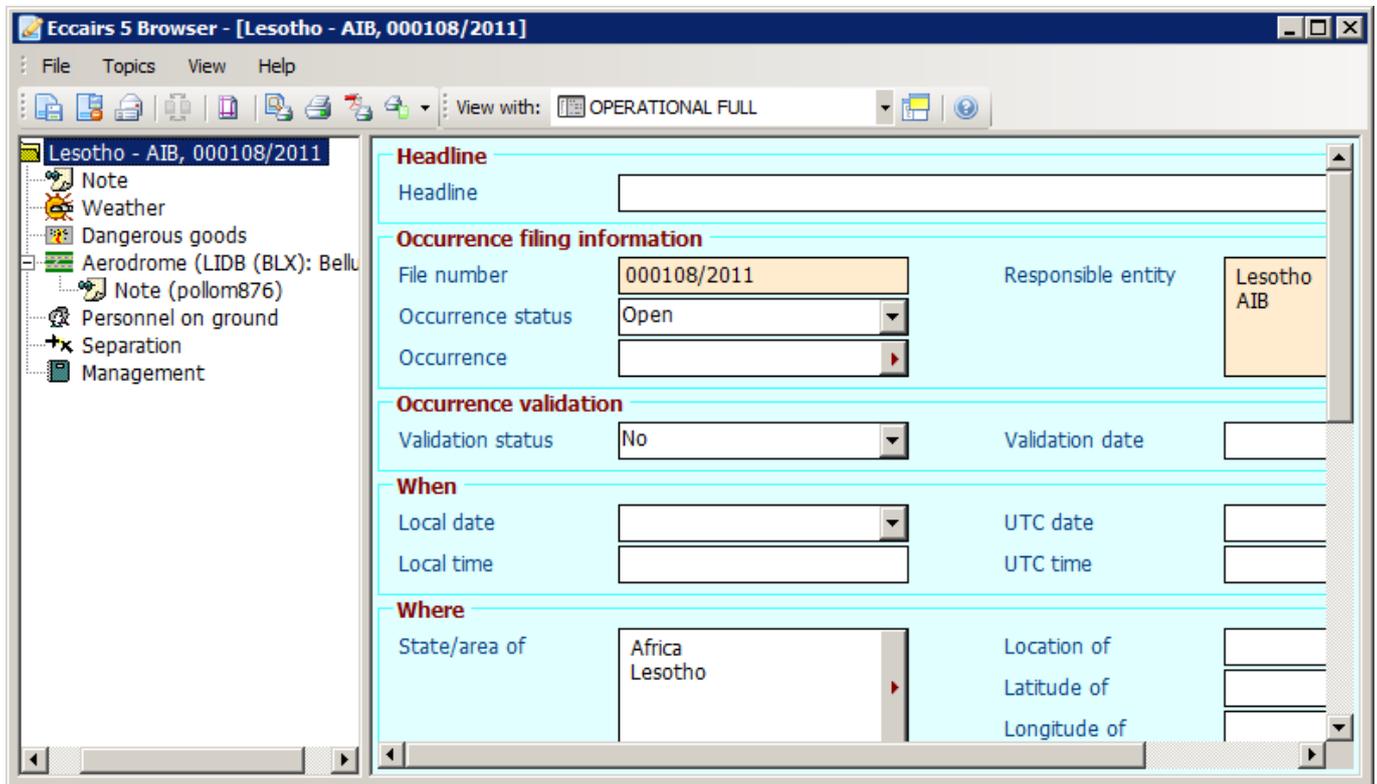
4.10.3. HELP > ABOUT

Opens a dialog displaying details on the version of the application you are running. Click the "OK" button to acknowledge and close the dialog.



4.11. OCCURRENCE EDIT WINDOW

The "Occurrence Edit" window is based on the "Information" panel of the main Browser window. However, it is a separate independent window and thus co-exists with the main Browser window.



The "Occurrence Edit" window has a different default background and colour scheme, to distinguish it from the browse-read Info Panel of the main window .

The colour scheme used can be customised using the "View > Options > Appearance" menu-item in the "Edit Occurrence" window ([see page 108](#)).

The "Occurrence Edit" window is used to:

- ▶ add/edit Topics ([see page 106](#)).
- ▶ add/edit the Attributes Values included in the Topic ([see page 301](#)).

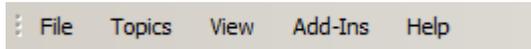
The Topics and Sections are View-dependent. You can change the current View by using the "View > View with" menu-item or the corresponding Toolbar item: both work exactly as the same items in the Browser Main window.

"Occurrence Edit" window items:

- ▶ **Menu bar** - to access all the Occurrence editing functions ([see page 96](#)).
- ▶ **Toolbar** - offers a quick visual access to a set of commonly used functions ([see page 96](#)).
- ▶ **Information Panel** - hosting the "**Topic-tree**" and "**Topic-data**" sub-panels, exactly the same items in the Browser Main window. This time however you can enter/edit Topics and Attributes.
- ▶ **Right-click menu** - available inside the "Topic-tree panel" to work with the Topics inside the Occurrence being edited. Its menu-items are the same as those in the Topics menu ([see page 105](#)).

4.11.1. MENU BAR

The Menu bar includes different menus to access the editing functions:



- ▶ **File menu** ([see page 100](#)).
- ▶ **Topics menu** ([see page 105](#)).
- ▶ **View menu** ([see page 107](#)).
- ▶ **Add-Ins menu** ([see page 110](#)) - displayed only if Add-Ins are configured in User menu.
- ▶ **Help menu** ([see page 111](#)).

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.11.2. TOOLBAR

The Toolbar offers a quick visual access to a set of commonly used functions in the "Occurrence Edit" window.



In fact the Toolbar is a customisable ("View > Toolbars" menu-item) set of task-specific Toolbars:

- ▶ **Occurrence** Toolbar - icon-buttons performing the same functions of the "File" menu-items.



- ▶ **View** Toolbar - icon-buttons performing the same functions of the "View" menu-items.



Stopping the mouse pointer (no clicking !) over the Toolbar icon-buttons in ECCAIRS causes the display of a Tooltip, i.e. a brief description of the actions-functions associated.

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.11.3. ADDING ATTACHMENTS

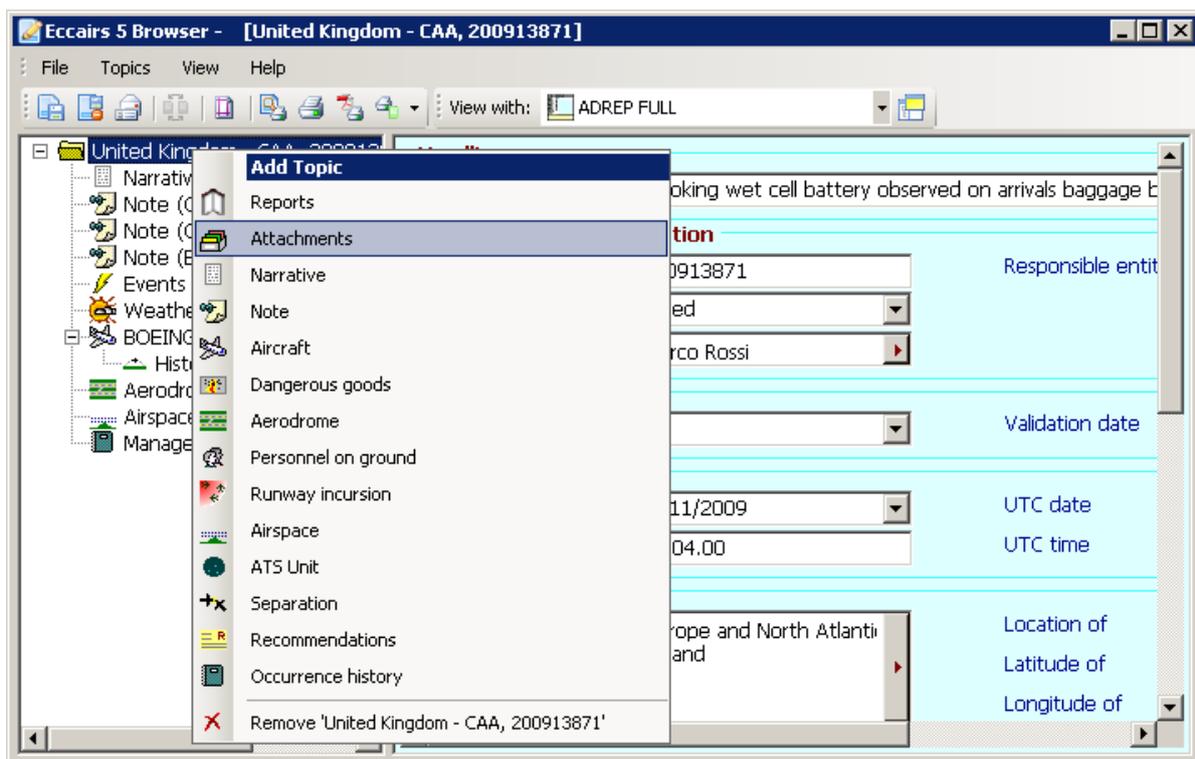
You can attach any document to an Occurrence, provided that the Repository Taxonomy and the View that you are using both envisage Attachments, and also if the User/Role you are logged in with allows to manage Attachments.

Attachments are handled as a specific type of Attribute which can be placed in any Section of a Topic of a View.

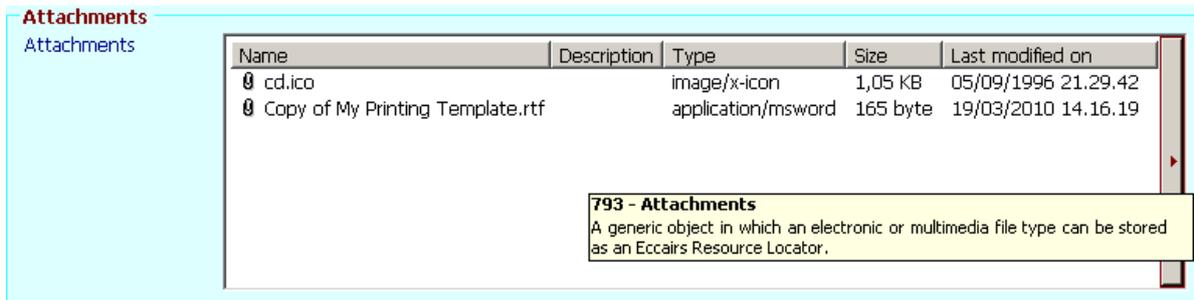
Attachments may be used wherever the View in use foresees them. So it may well be that, for the same Occurrence, a View allows to add Attachments and another does not.

To add Attachments:

- ▶ Select the Topic/Section where the Attachments are foreseen.
There may be, for instance, a specific "Attachment" Topic, including a single Section with the "Attachment" Attribute.
Or there may be a Section with an "Attachment" Attribute in any Topic.
In case of a specific "Attachment" Topic, you need to add it first to the Occurrence, if not already present.

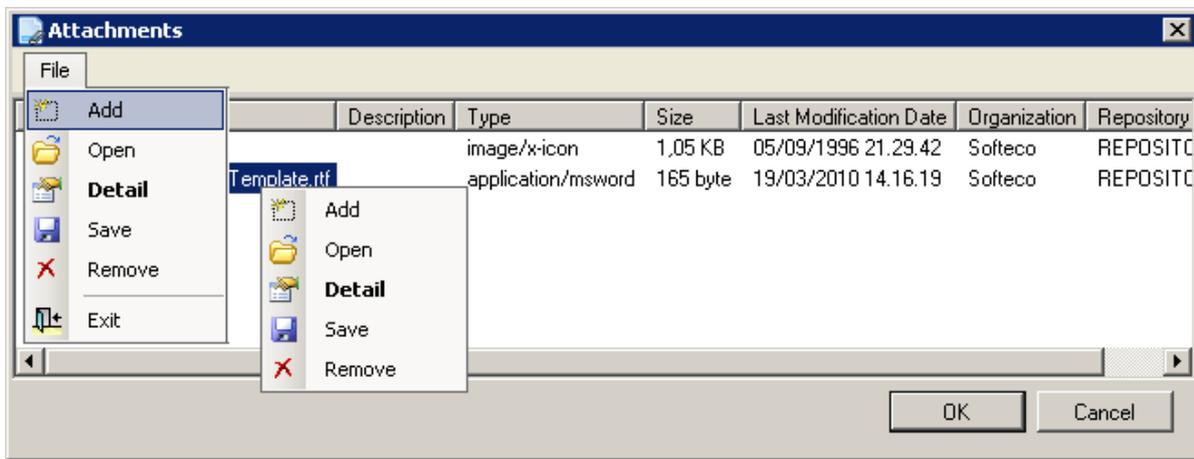


- ▶ The Section including Attachments displays the list of Attachment included with the Occurrence.



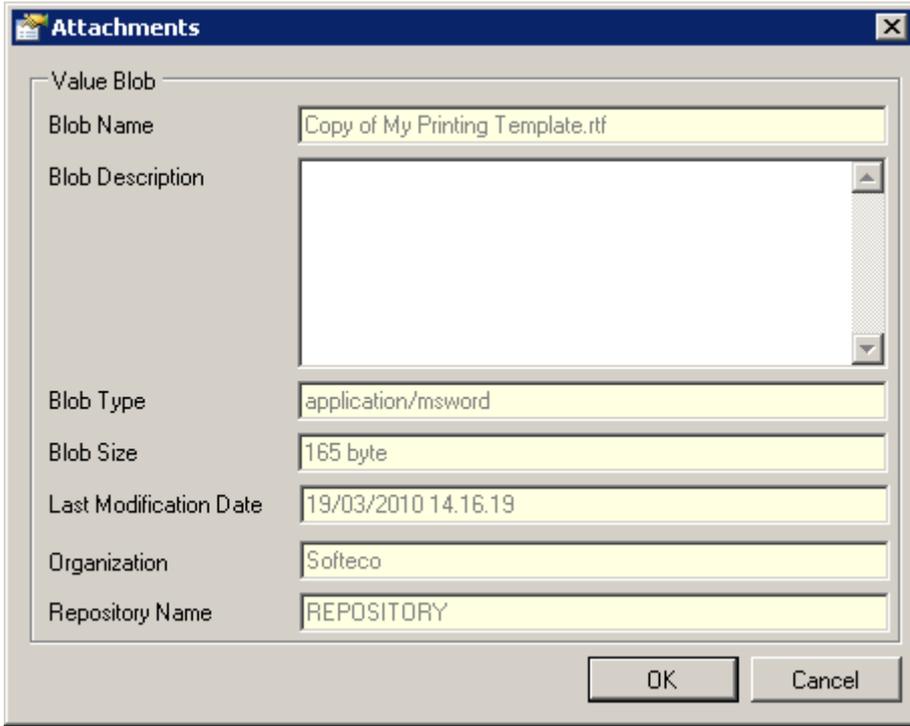
You can select any item and view it and save it Same as you do when viewing Occurrences with Attachments ([see page 34](#)).

- ▶ Click the large "add" icon-button on the right of the panel. An "Attachments" dialog shows up.



In the dialog you can perform a number of functions through the "File" menu-items and the corresponding "Right-click" menu-items in its Attachments list central pane:

- **Add** - to add an Attachment using the standard "Open" dialog to pick up the file.
- **Open** - to open the selected Attachment using the associated application in Windows.
- **Detail** - to show a dialog with a set of properties of the Attachment file.



The screenshot shows a dialog box titled "Attachments". It contains the following fields and values:

Field	Value
Value Blob	
Blob Name	Copy of My Printing Template.rtf
Blob Description	
Blob Type	application/msword
Blob Size	165 byte
Last Modification Date	19/03/2010 14.16.19
Organization	Softeco
Repository Name	REPOSITORY

At the bottom of the dialog are two buttons: "OK" and "Cancel".

- **Save** - to save the selected Attachment using the standard "Save as" dialog to select the save folder and, if desired, rename it at the same time.
- **Remove** - to remove the selected Attachment.

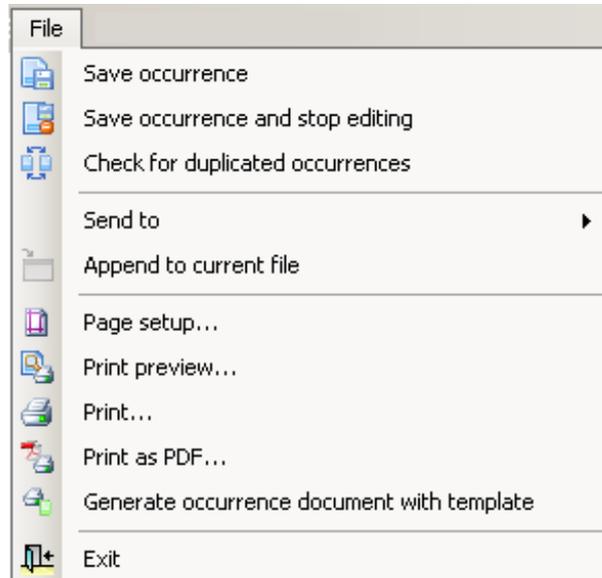
Close the "Attachments" dialog by clicking on:

- ▶ **OK** - to save the changes made
- ▶ **Cancel** - to discard them.

Attachments can be listed and displayed/extracted in the Browser read mode ([see page 34](#)).

4.12. FILE MENU (EDIT WINDOW)

The File menu includes mainly functions to save and print the Occurrence while editing.



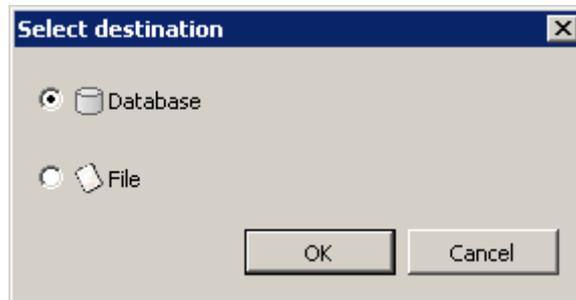
Menu items:

- ▶ **Save Occurrence**
- ▶ **Save Occurrence and stop editing**
- ▶ **Check for duplicated Occurrences**
- ▶ **Send to**
- ▶ **Append to current file**
- ▶ **Page setup**
- ▶ **Print preview**
- ▶ **Print**
- ▶ **Print as PDF**
- ▶ **Generate Occurrence document with template**
- ▶ **Exit**

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

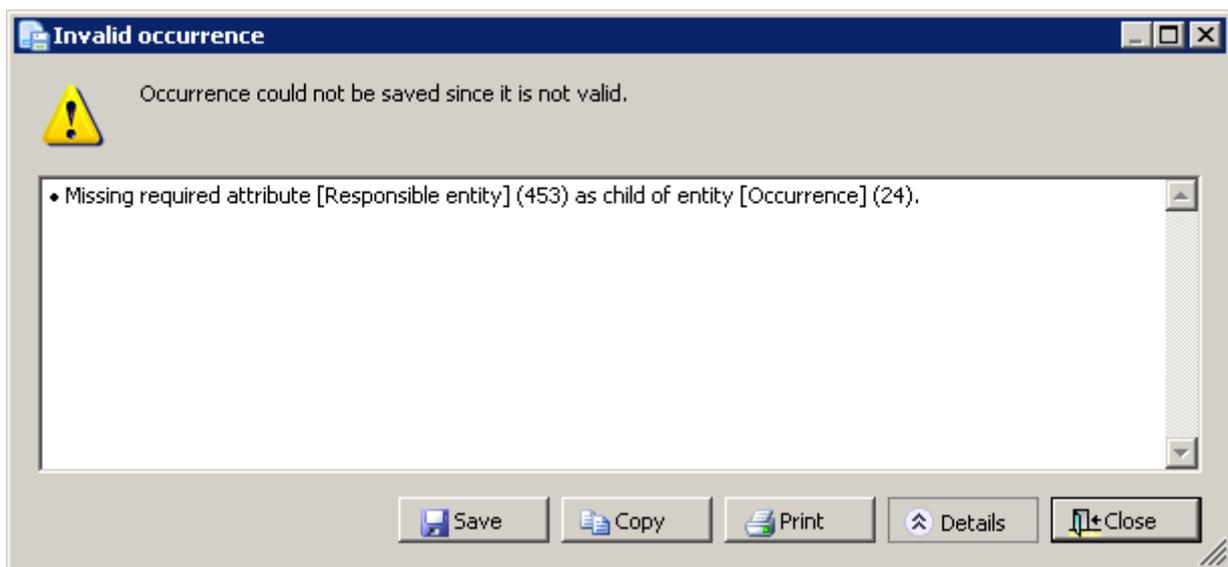
4.12.1. FILE > SAVE OCCURRENCE

When saving a new Occurrence you are asked to save it in either:



- ▶ **Database** - the currently opened database.
- ▶ **File** - the currently opened Occurrence file. If there is no file Occurrence file already opened the Occurrence is placed in the empty File-originated "Occurrence List" in the Browser Main window.

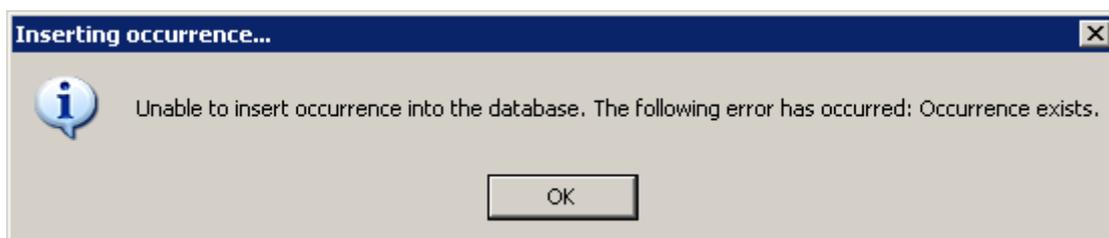
If the Occurrence is missing any mandatory Attribute value then an "Invalid Occurrence" error dialog is displayed.



You can choose to display details and you can also copy them to the clipboard, save them to a text file and print them. The "**Close**" button exits the dialog.

You then have the information needed to provide the missing Attribute values.

When you save the Occurrence and automatic detection of duplicated Occurrence is performed. In case a potential duplication is detected the Occurrence is not saved and the system displays an error dialog.



4.12.2. FILE > SAVE OCCURRENCE AND STOP EDITING

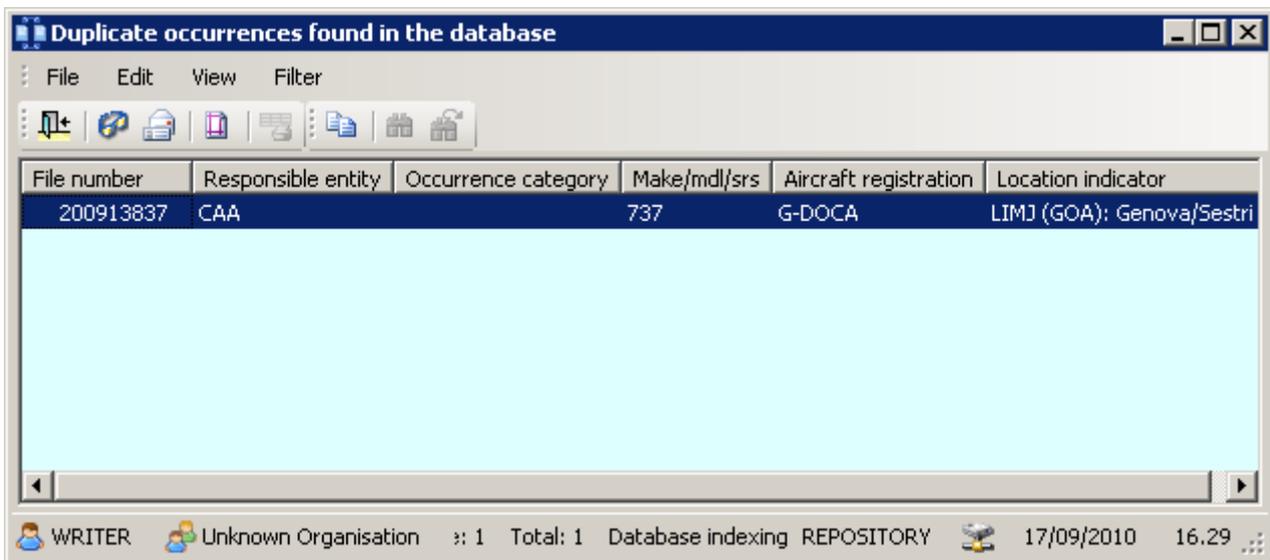
Saves the Occurrence as with "File > Save Occurrence" and then exits the "Occurrence Edit" window.

4.12.3. FILE > CHECK FOR DUPLICATED OCCURRENCES

The check for duplicated Occurrences is made between the Occurrence being edited and the Occurrences currently in the database. This check is in any case executed automatically when saving the edited Occurrence in the database.

The menu-item is enabled only if a proper "Duplicate Occurrences" detect condition has been set in the "Browser Profile" assigned to the current User/Role in the Repository.

If any duplicate Occurrence is found a "Duplicate Occurrences" dialog is displayed.



The dialog is a self-standing window that you may keep open while working with the "Occurrence Edit" and Browser Main windows.

You may wish, for instance, to keep the dialog open while you modify in the "Occurrence Edit" window the Attributes values which trigger the duplication detection.

Its layout includes a Menu bar and a Toolbar at the top and a Status bar at the bottom.

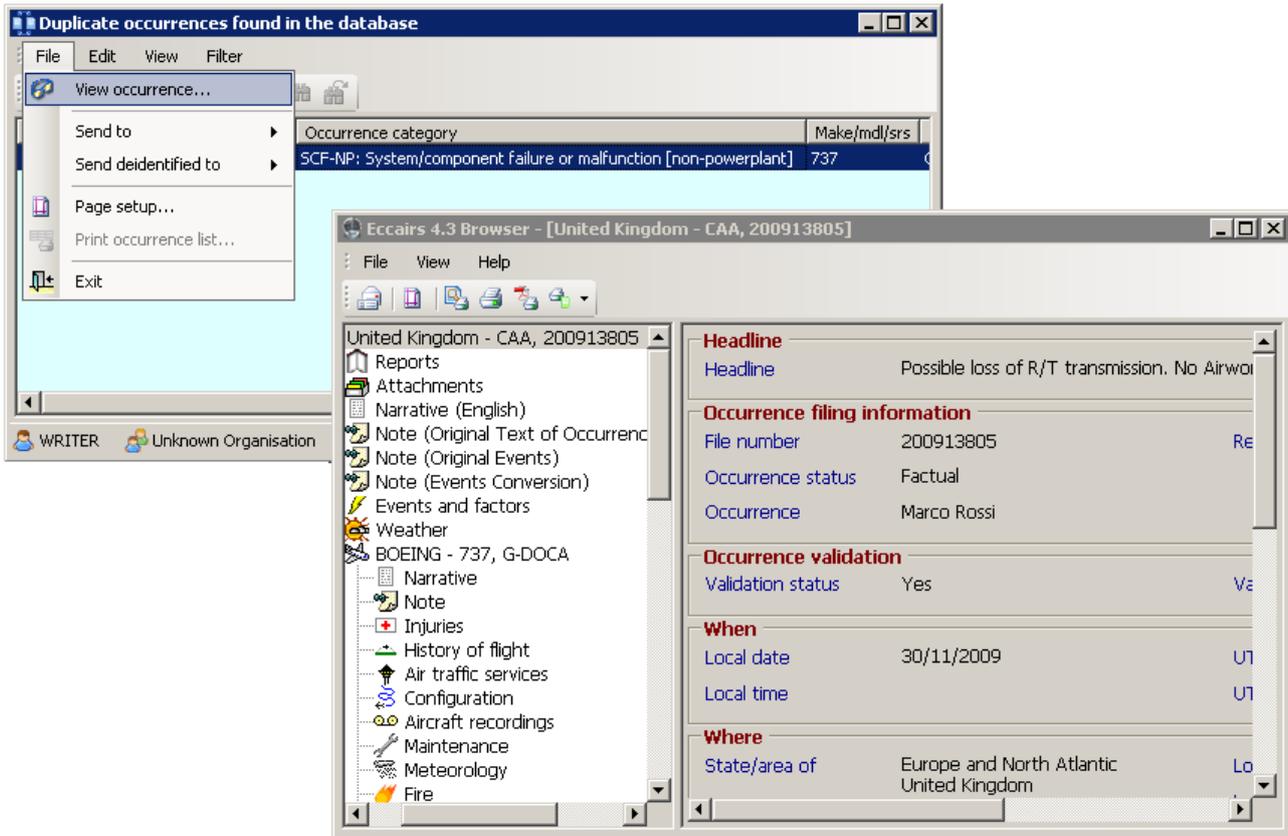
The central panel is Same as the "Occurrence List" panel in the Browser Main window, and so is its "Status bar".

The Toolbar is composed by the "Edit" and the "File" sections, that you can separately enable/disable from the "View > Toolbars" menu-item.

The Menu bar has four menus: File, Edit, View and Filter.

All of the menu-items correspond to functions available in the Browser Main window menus, but are specific to the duplicated Occurrence(s) found and listed in the central pane. You can, for instance, send the duplicated Occurrence(s) to a File or E-Mail address, filter the list, etc.

The only "Duplicate Occurrences" dialog-unique menu-item is "View Occurrence" which, in turn, when selected opens a "Mini Browser" window where you can examine the content of the duplicate Occurrence selected as with the "Occurrence Information" panel in the Browser Main window.



4.12.4. FILE > SEND TO

Sends the Occurrence to either an E-Mail address, or an Occurrence File or to the current Database. Same as the "File > Send to" menu-item in the Browser Main window ([see page 44](#)).

4.12.5. FILE > APPEND TO CURRENT FILE

Appends the Occurrence to the Occurrence file currently open.

This menu-item is enabled only when editing an existing Occurrence from the database.

In this case the edited Occurrence will be saved to the currently opened Occurrence file rather than to the database.

4.12.6. FILE > PAGE SETUP

Same as the "File > Page setup" menu-item in the Browser Main window ([see page 47](#)).

4.12.7. FILE > PRINT PREVIEW - OCC. EDIT WINDOW

Same as the "Occurrence > Print preview" menu-item in the Browser Main window ([see page 88](#)).

4.12.8. FILE > PRINT

Same as the "Occurrence > Print" menu-item in the Browser Main window ([see page 90](#)).

4.12.9. FILE > PRINT AS PDF

Same as the "Occurrence > Print as PDF" menu-item in the Browser Main window ([see page 92](#)).

4.12.10. FILE > GENERATE OCCURRENCE DOCUMENT WITH TEMPLATE

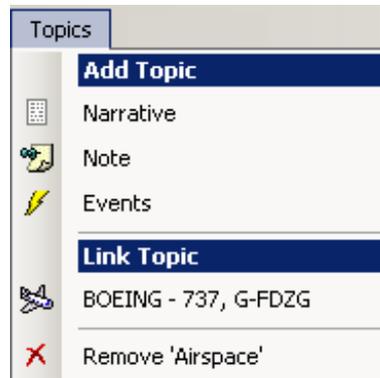
Same as the "Occurrence > Generate Occurrence document with template" menu-item in the Browser Main window ([see page 92](#)).

4.12.11. FILE > EXIT

Exits the "Occurrence Edit" window.

4.13. TOPICS MENU (EDIT WINDOW)

The Topics menu-items let you select any child Topics that you wish to add to the Topic currently selected in the "Tree-data" sub-panel in the "Occurrence Edit" window.



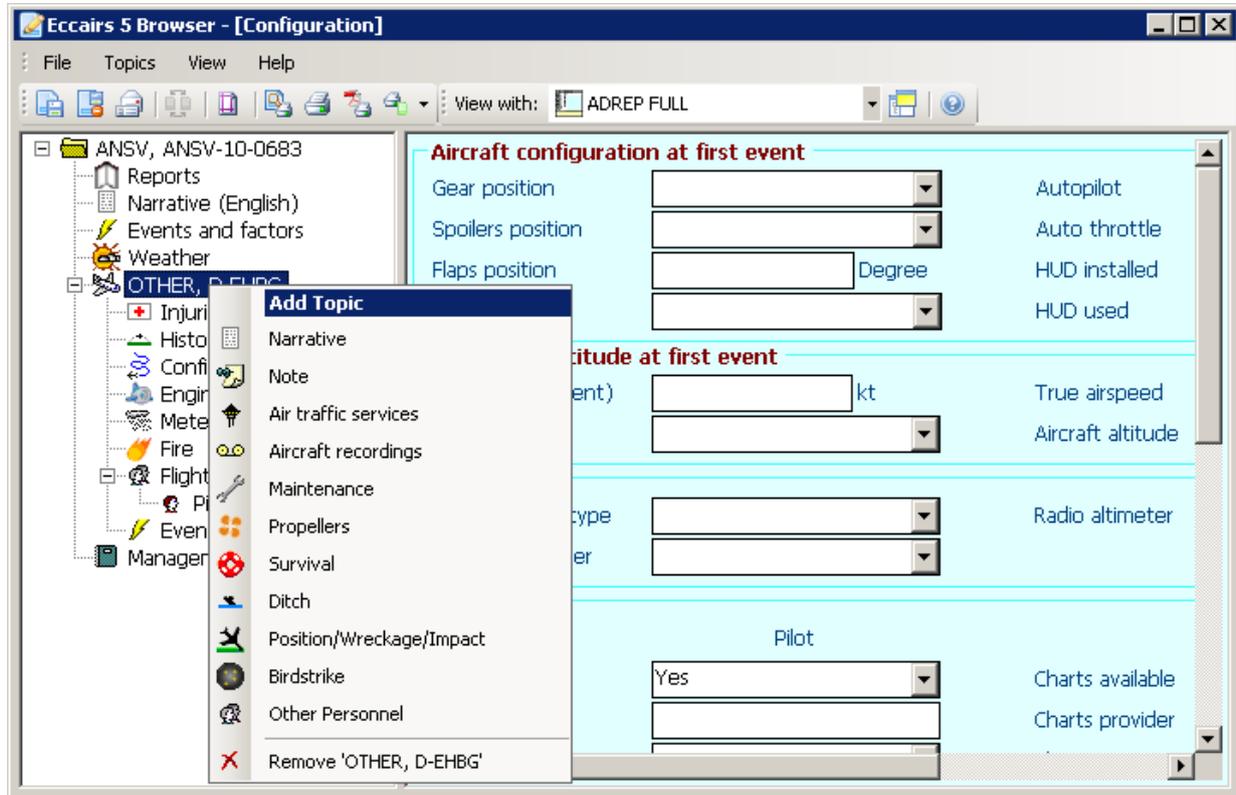
Menu items:

- ▶ **Add Topic**
- ▶ **Link Topic**
- ▶ **Remove "Topic-type"**

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.13.1. TOPICS > ADD TOPIC

To add a Topic to the Occurrence you have to select the parent Topic, which may be the Occurrence itself, then select either the "Topics > Add Topic" or the "Right-click > Add Topic" menu-item and the type of child Topic to add.



The system proposes as the "Topic > Add Topic" menu-items all the available types of child Topics for the parent Topic selected.
 The possible child Topics are set in the View you have currently selected, whose content is strictly bound to and constrained by the underlying Taxonomy.

4.13.2. TOPICS > LINK TOPIC > "TOPIC TYPE"

You get this menu-item only if the currently selected Topic allows linkable Topics
 Use its sub menu-items to select the Topic to link. Linking a Topic let you refer to a Topic which is not a child Topic. This means that multiple Topics can be linked to the same Topic, which you cannot do with child Topics.

4.13.3. TOPICS > REMOVE "TOPIC-TYPE"

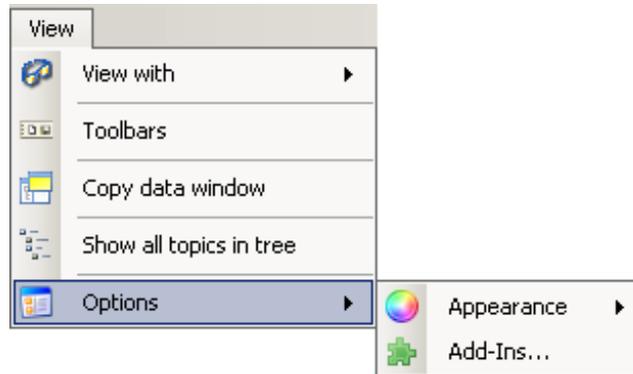
Removes the Topic currently selected in the Topic-tree. Beware that if you select the root Topic, i.e. the Occurrence itself, than you will remove the whole Occurrence.

4.13.4. TOPICS > UNLINK

If the Topic that you try to remove is not a child Topic but is link to another Topic (linked Topic), then you remove the link. The linked Topic is not removed.

4.14. VIEW MENU (EDIT WINDOW)

The View menu includes miscellaneous display options.



Menu items:

- ▶ **View with**
- ▶ **Toolbars**
- ▶ **Copy data window**
- ▶ **Show all Topics in tree**
- ▶ **Options**

The menu and menu-items are completely customisable and may contain fewer items than those described here, depending on the specific User/Role and Repository you are logged in.

4.14.1. VIEW > VIEW WITH

Same as the "View > View with" menu-item in the Browser Main window ([see page 52](#)).

4.14.2. VIEW > TOOLBARS

By default all the Toolbars are visible. You can however select which of the Toolbars to display:

- ▶ Occurrence Toolbar.
- ▶ View Toolbar.

4.14.3. VIEW > COPY DATA WINDOW

Same as the "View > Copy Data Window" menu-item in the Browser Main window ([see page 56](#)).

4.14.4. VIEW > SHOW ALL TOPICS IN TREE

Same as the "View > Show All Topics in a Tree" menu-item in the Browser Main window ([see page 57](#)).

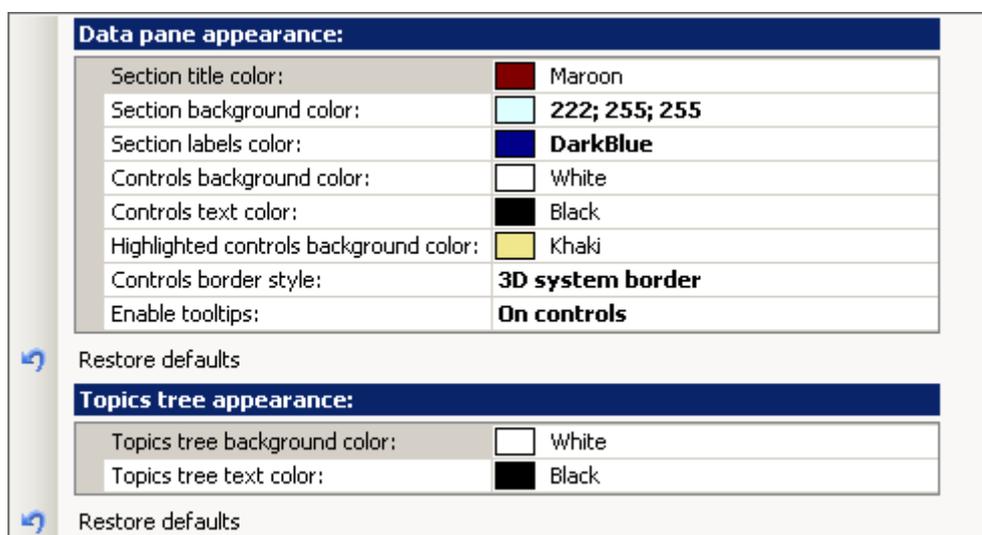
4.14.5. VIEW > OPTIONS

4.14.5.1. VIEW > OPTIONS > ADD-INS

Same as the "View > Options > Add-Ins" menu-item in the Browser Main window ([see page 70](#)).

4.14.5.2. VIEW > OPTIONS > APPEARANCE

The Appearance (display) options are grouped into sections and control the colour and font options of the "Occurrence Edit" window.



You can instead set the appearance options of the Browser Main window, i.e. when reading/browsing Occurrences, with corresponding the "View > Options > Appearance" menu-item ([see page 57](#)).

You can either set or reset to default program values:

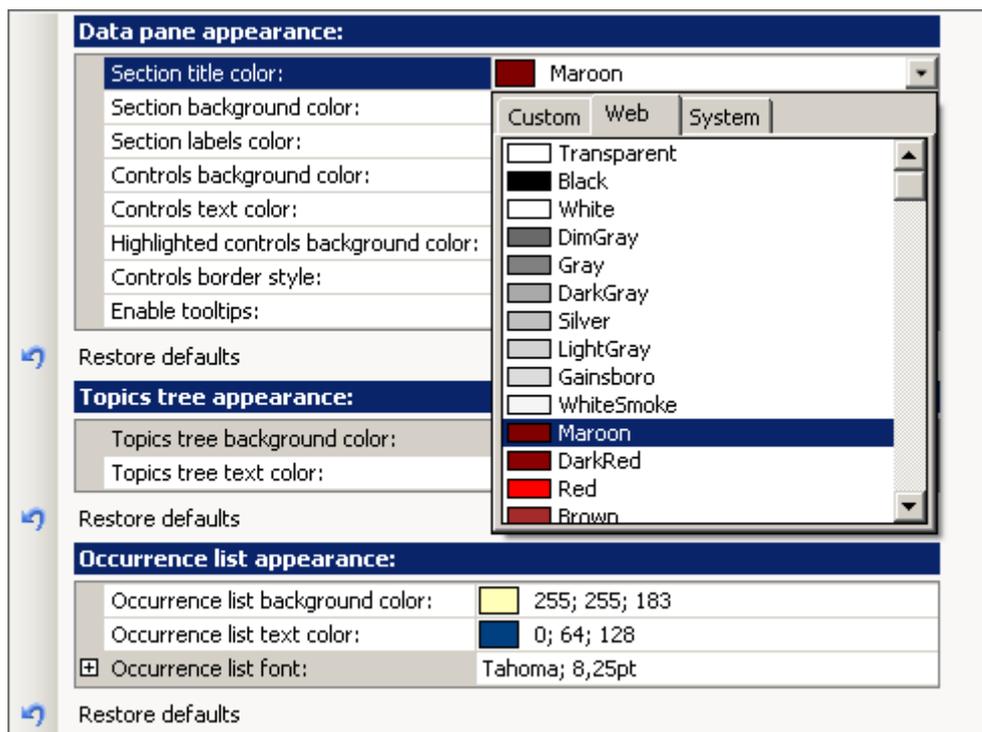
▶ **Data panel appearance:**

- Sections title colour
- Sections background colour
- Sections labels colour
- Controls text colour
- Controls background colour
- Highlighted controls background colour
- Controls border style (no border, solid black, 3D style)
- Tooltips (none, on controls, on drop-down lists, all)

▶ **Topics tree appearance:**

- text colour
- background colour

Clicking on any of the colour selector displays a colour drop down control.



You can choose web-safe colours, Windows-system colours or even define a custom colour. Other non-colour related options are set via standard drop-down menus or font setting dialogs.

Note

Your Repository Administrator can configure your environment in such a way that not all options are available or can be changed. Contact your ECCAIRS Reporting System administrator to have more information.

4.15. ADD-INS MENU (EDIT WINDOW)

The ECCAIRS 5 Browser can be connected to external software modules called Add-Ins.

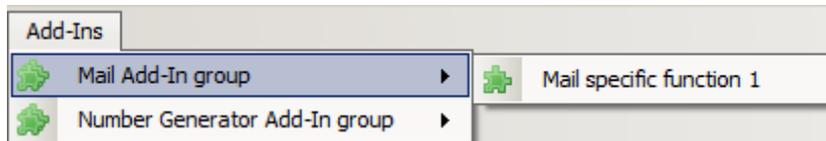
Depending on the configuration set on the Repository for the Role/User you are logged in, you may be have some "Add-Ins" that you can execute when you select a specific additional menu-item.

The Add-Ins menu-items can also be made available only for specific Views, Topics or operating mode (read or edit mode).

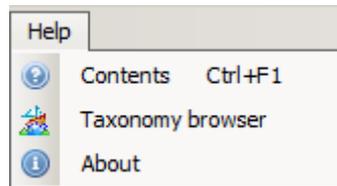
Note that, depending on the specific Repository configuration set, you may also be able to modify the configuration for the Add-Ins using the "View > Options > Add-Ins" menu-item in the Browser itself ([see page 70](#)).

In any case, if Add-Ins are available, the Add-Ins menu is displayed in the Menu bar.

It has sub-menus grouping menu-items specific to each Add-In.



4.16. HELP MENU (EDIT WINDOW)



Menu items:

- ▶ **Contents**
- ▶ **Taxonomy Browser**
- ▶ **About**

4.16.1. HELP > CONTENTS

Displays online help for the application you are running.

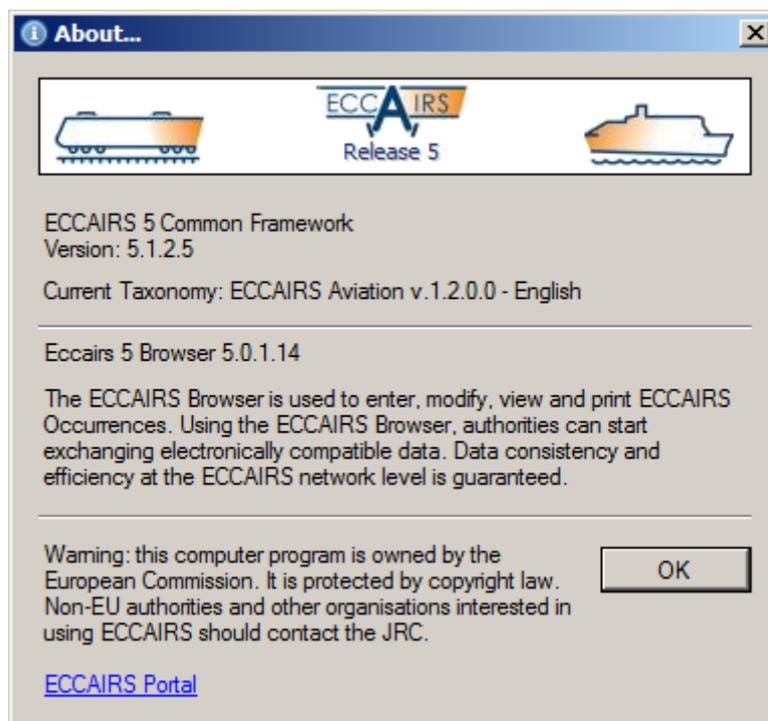
You can also invoke the online help at any time by pressing the "CTRL" and "F1" keyboard keys at the same time.

4.16.2. HELP > TAXONOMY BROWSER

Starts the Taxonomy Browser application, which allows you to examine in a separate window all details of the Taxonomy in use. This can be useful while editing Queries, selecting and editing Attributes.

4.16.3. HELP > ABOUT

Opens a dialog displaying details on the version of the application you are running. Click the "OK" button to acknowledge and close the dialog.



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5. GRAPHER

5.1. USING THE GRAPHER

5.1.1. WHAT IS THE ECCAIRS GRAPHER

The ECCAIRS Grapher application is used to extract basic statistical information from Occurrences in an ECCAIRS database and display it in a comprehensible graphical format.

Graphs can be viewed on the screen, printed as a report and copied and pasted into another application as a bitmap.

The underlying Graph data can be exported in a standard tab-separated text format to be imported in applications like, for example, MS Excel.

Specific features of the ECCAIRS Grapher are:

- ▶ Graphs are taken dynamically from the ECCAIRS database and thus reflect a real time situation.
- ▶ Graphs can be exchanged, and thus re-applied and compared, between different organisations.
- ▶ Graphs can be customised and extended to hide specific information, calculate and include aggregate functions (Sum, Average, Max, Min, etc.) and normalise the Query results to make data series comparable.
- ▶ Created Graphs can be saved as templates to serve as a starting point for new Graphs.

5.1.2. WHAT IS A GRAPH

A Graph is an electronic document presenting in a graphical format extracted information from an ECCAIRS database. The purpose of the Graph is to present in a re-usable, easy and understandable format, usually statistical information out of the database.

ECCAIRS Graphs consist of four basic elements:

- ▶ A Query that defines the subset of Occurrences from the database which is used to create the Graph.
- ▶ The X-Axis, defined by elements out of the database (Values, possibly aggregated, of a particular Attribute, retrieved with a series) which are plotted horizontally in the chart.
- ▶ The Y-Axis, defining the data-series plotted in the Graph for each value of the X-Axis. Data-series can be of two types: database Queries resulting in Values of other Attributes or calculations on other data-series.
- ▶ The optional Z-Axis, which defines categories for the X, Y plot by such adding a third dimension to the Graph.

5.1.3. GRAPH LIBRARIES

The Graph Library is a file containing all the information needed to store and retrieve Graphs.

Graphs can be exchanged between Users by simply copying the Graph Library in which they exist.

Graph Libraries are only identified by their file names. It is best practice to give the Libraries significant names.

Graph Libraries are stored in "Graph Library" files, which have a (*.e5g) file extension.

Note

All four properties of a Graph can be defined by the User based on any Attribute from the ECCAIRS Taxonomy. Obviously in many cases the results could have no significant meaning.

The ECCAIRS Grapher provides the tools for producing the output, however it is the responsibility of the ECCAIRS Users and Administrators to define useful Graphs and take care of data quality in the database.

5.1.4. USING THE GRAPHER

The minimum steps required to create and draw a Graph are:

- ▶ Start the Grapher ([see page 19](#)).
- ▶ Create a Graph Library (or open an existing one) ([see page 125](#)).
- ▶ Create a New Graph ([see page 126](#)).
- ▶ Set the Database Query which defines the subset of data from the database which is used to create the Graph ([see page 138](#)).
- ▶ Define the X and Y Axes of the Graph. You may optionally define a Z Axis ([see page 139](#)).
- ▶ Draw the Graph ([see page 140](#)).

You can then explore the Grapher through its functions.

Working with Graph Libraries

Working with the "Graph Library" window you can:

- ▶ Create a new Library ([see page 125](#)).
- ▶ Open an existing Library ([see page 125](#)).
- ▶ Change Graph Names and Icons ([see page 132](#)).
- ▶ Cut, Copy and Paste Graphs ([see page 132](#)).
- ▶ Import and Export Libraries ([see page 128](#)).

You can also:

- ▶ Create a new Graph ([see page 126](#)).
- ▶ Open an existing Graph ([see page 127](#)).
- ▶ Display the list of the Graphs in different modes ([see page 120](#)).

Working with Graphs

The main activities you can perform with Graphs are:

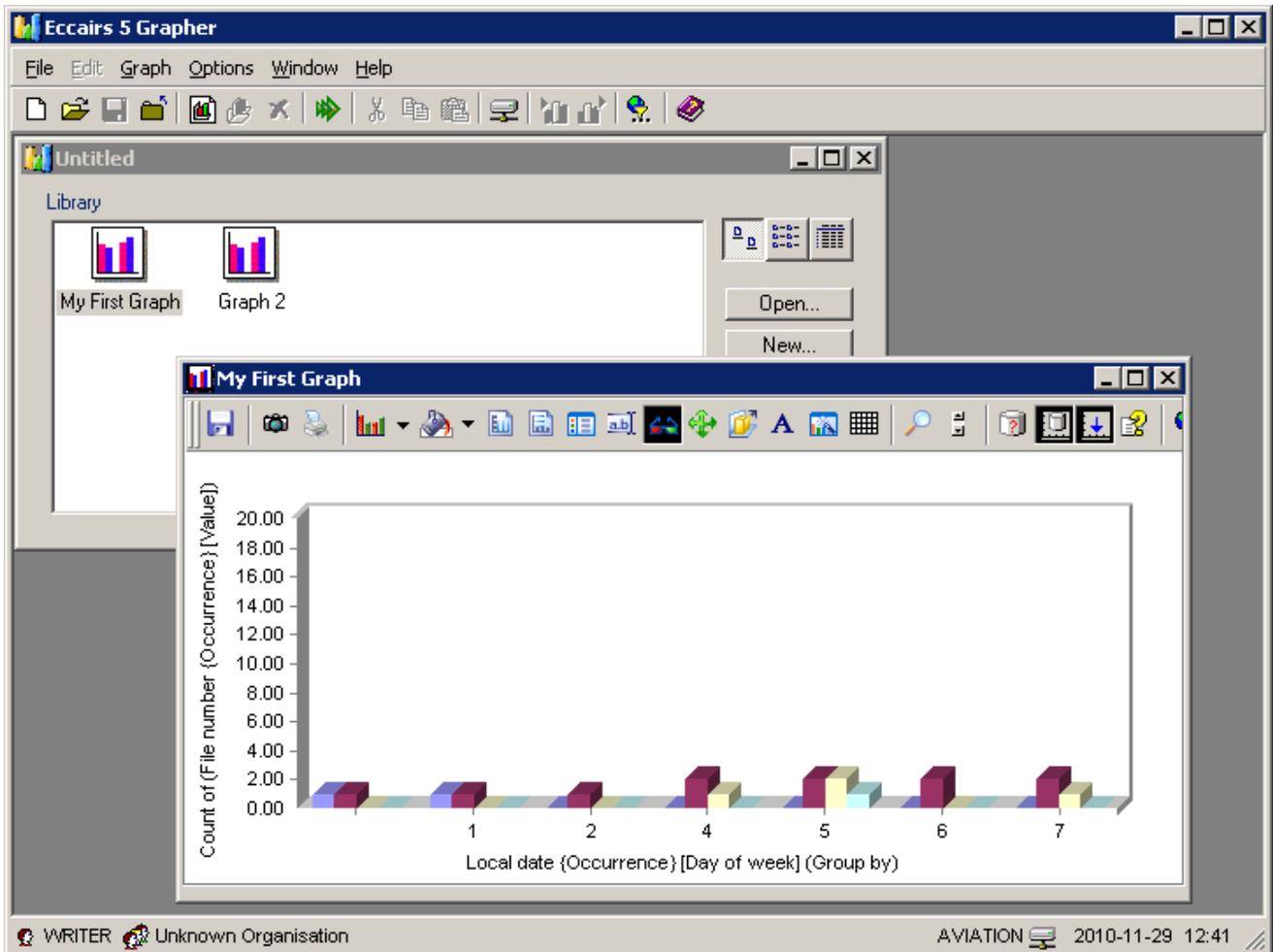
- ▶ Create a new Graph ([see page 126](#)).
- ▶ Open an existing Graph ([see page 127](#)).
- ▶ Delete a Graph ([see page 127](#)).
- ▶ Change Graph Names and Icons ([see page 132](#)).
- ▶ Cut, Copy and Paste Graphs ([see page 132](#)).
- ▶ Save Graphs and create Graph templates ([see page 134](#)).
- ▶ Copy a Graph into the clipboard for pasting in external applications ([see page 134](#)).
- ▶ Print Graphs and choose a Printer ([see page 135](#)).
- ▶ Draw-Execute a Graph or All Graphs in a Library ([see page 140 and 128](#)).
- ▶ Set/Enable a Global Filter on Occurrence Data for all Graphs and enable/disable it for single Graphs ([see page 129](#)).
- ▶ Set and Edit the Query to extract Occurrence data for the Graph ([see page 138](#)).
- ▶ Set the Graph Axes ([see page 139](#)).
- ▶ Set other Graph properties ([see page 136](#)).
- ▶ Zoom and pan the Graph ([see page 138](#)).
- ▶ Set Label options. ([see page 141](#)).

Windows Layout, Menus and Toolbars

You may also explore the Grapher through its layout, menus and toolbars:

- ▶ The Grapher Main window ([see page 116](#)).
- ▶ The Toolbar ([see page 117](#)).
- ▶ File menu ([see page 124](#)).
- ▶ Edit menu ([see page 131](#)).
- ▶ Graph menu ([see page 133](#)).
- ▶ Options menu ([see page 141](#)).
- ▶ Window menu ([see page 142](#)).
- ▶ Help Menu ([see page 146](#)).
- ▶ The "Graph Library" window ([see page 120](#)).
- ▶ The "Graph" window ([see page 122](#)).
- ▶ The Data Grid ([see page 148](#)).

5.2. MAIN WINDOW AND MENUS

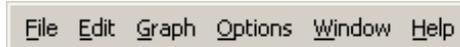


The ECCAIRS Grapher Main window is made up of a large open area and 3 bars:

- ▶ **Menu bar** - at the top. Provides menus to access the all the Grapher tasks.
- ▶ **Toolbar** - provides shortcuts to the most used menu items related to the ECCAIRS Grapher Library.
- ▶ **Workspace** - the central area where the current Graph Library and its opened Graphs are displayed.
- ▶ **Status bar** - placed at the bottom. Displays general information.

5.2.1. MENU BAR

The ECCAIRS Grapher Main window has six main menus accessible from the Menu bar.



- ▶ **File menu** ([see page 124](#)).
- ▶ **Edit menu** ([see page 131](#)).
- ▶ **Graph menu** ([see page 133](#)).
- ▶ **Options menu** ([see page 141](#)).
- ▶ **Window menu** ([see page 142](#)).
- ▶ **Help menu** ([see page 146](#)).

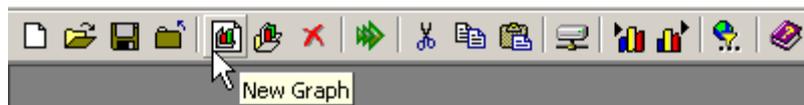
5.2.2. TOOLBAR

The Toolbar offers a quick visual access to a set of commonly used functions in ECCAIRS Grapher.



All the functions provided by the Toolbar can be performed by some of the items in the "File", "Edit", "Graph" and "Help" menus.

Stopping the mouse pointer (no clicking !) over the Toolbar icon-buttons causes the display of a Tooltip, i.e. a brief description of the actions-functions associated.



5.2.3. STATUS BAR

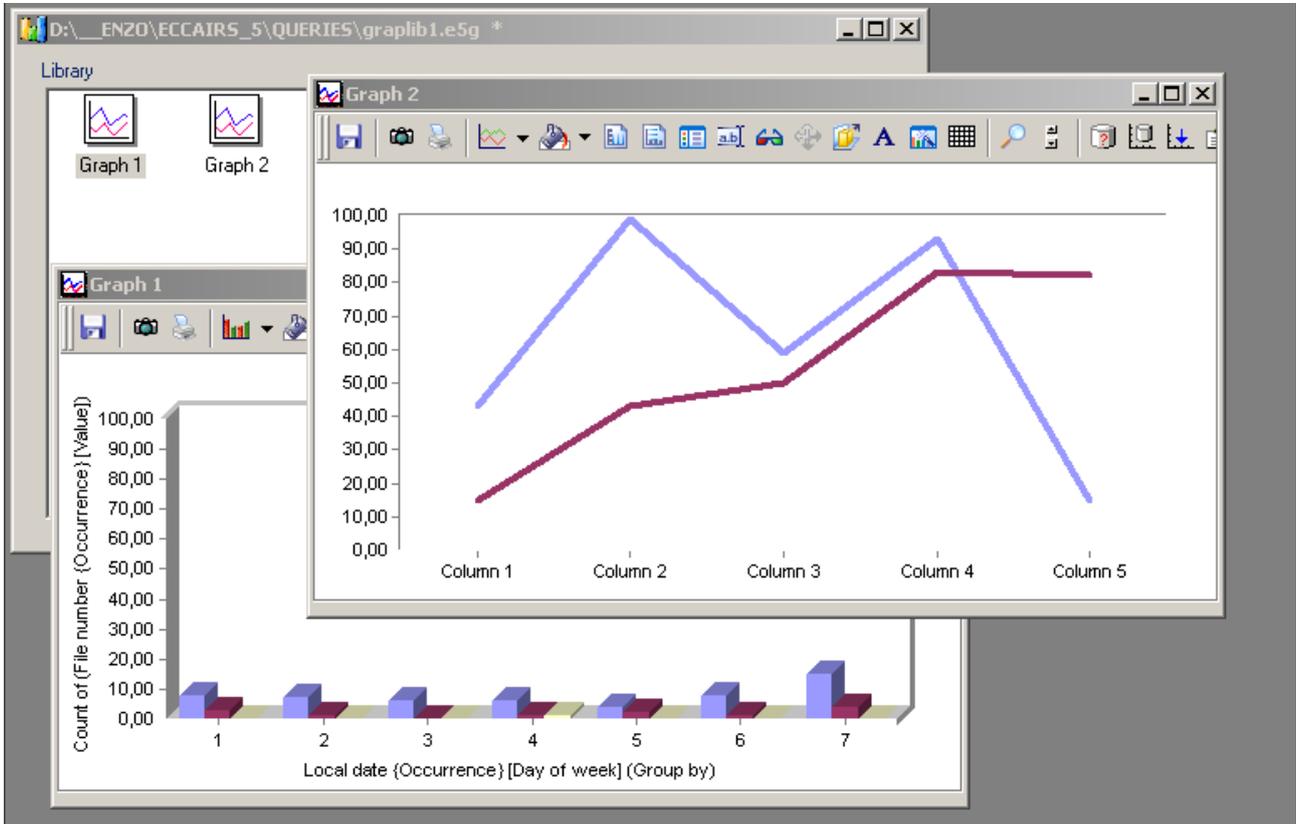


The Status bar displays, from left to right:

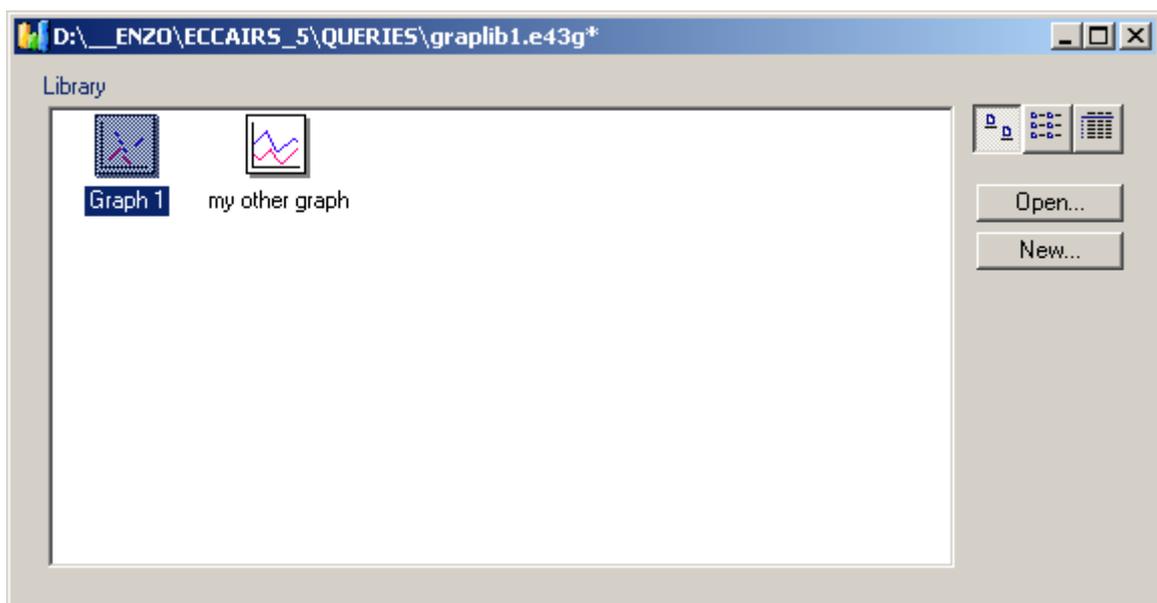
- ▶ the current User.
- ▶ the current Organisation.
- ▶ the current Repository name.
- ▶ the connection status to the database.
- ▶ the current time and date.

5.2.4. GRAPHER WORKSPACE

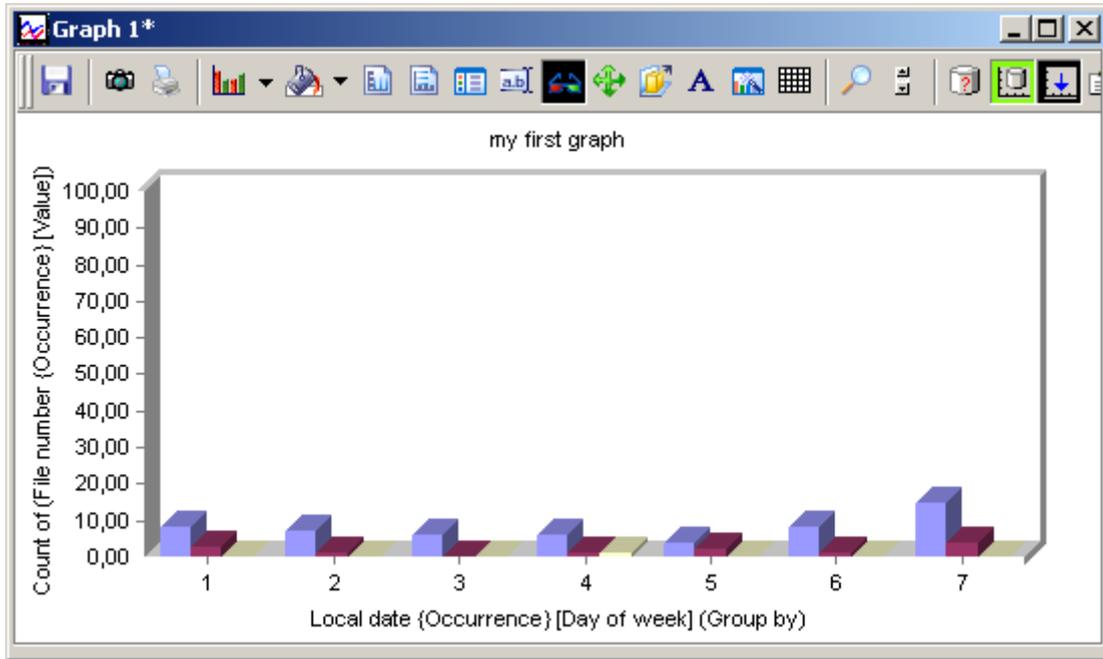
The ECCAIRS Grapher Workspace is the Multiple Document Interface (MDI) area in the ECCAIRS Grapher application. This means that you can have several windows open at the same time.



However you can have one, and only one, "Graph Library" window which lists all the Graphs within the currently open "Graph Library".



By clicking on any of the existing Graphs or creating a new Graph you open the corresponding "Graph" window. You can open any number of "Graph" windows.



Each window can be minimised, maximised or restored to the original size, following standard Windows controls on the window.

Furthermore the windows can be tiled (horizontally or vertically), cascaded or arranged automatically from the various Window menu-items ([see page 142](#)).

Note

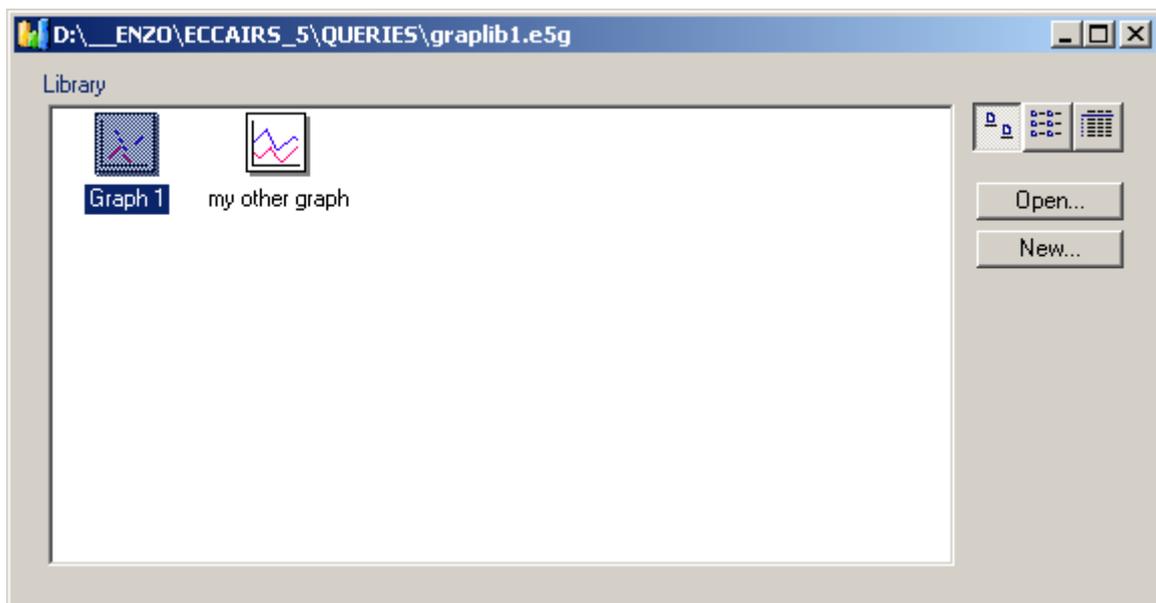
It is recommended to open only a limited number of Graphs (not more then 10) at the same time.

Each Graph takes away system resources which, at the end, could result in a degraded performance.

5.3. GRAPH LIBRARY WINDOW

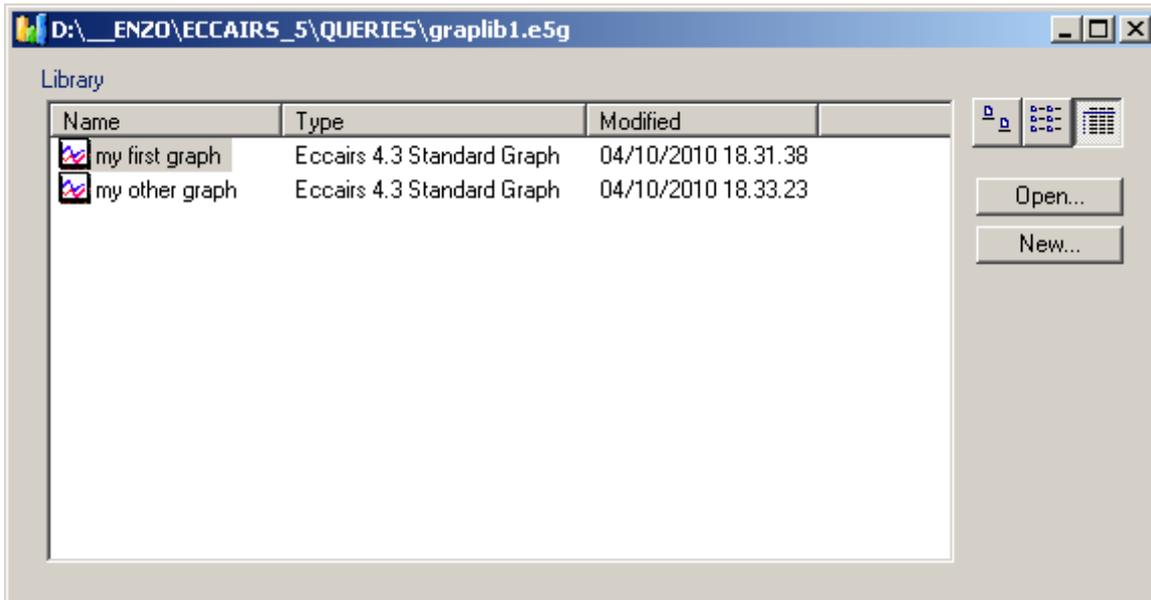
This is the window that is displayed when you open an existing Graph Library or create a new Graph Library. Its panel shows the Graphs included in the currently open Graph Library.

To Open a graph select the graph you wish to open and press the "**Open**" button or double click the icon. To create a New graph select the "**New**" button.



The window includes:

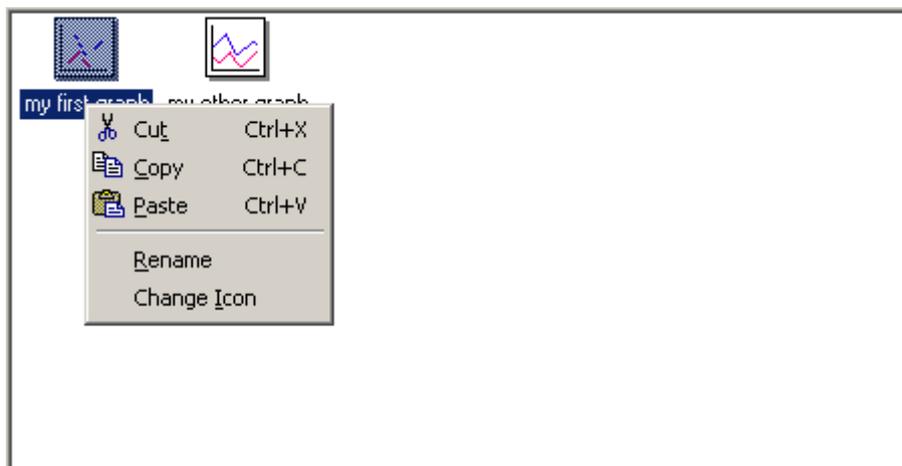
- ▶ **"Graph Library" file name** - the top title bar of the window displays the complete file-system path to the currently open "Graph Library" file (*.e5g). A "*" at the end of the path indicates that the content of the Library has been modified but not yet saved to the "Graph Library" file.
- ▶ **Graph List panel** - you find here all the Graphs included in the Graph Library. Using the three top buttons on the right you can display the Graphs as icons, list or detailed list. If you select the "detailed list" mode the list includes also the last modification date for each Graph.



- ▶ **Right-click menu** - if you select a Graph and you right-click on it, you get a right-click contextual menu. [See next section for details.](#)
- ▶ **Buttons right-panel** - you have a few buttons:
 - **Graphs list mode** - to display the Graphs within the "Graph list" panel as icons, list or detailed list.
 - **Open** - to open a "Graph Library" file. Same as the "File > Open Library" menu-item ([see page 125](#)).
 - **New** - to create a new "Graph Library" file. Same as the "File > New Library" menu-item ([see page 125](#)).

5.3.1. LIBRARY RIGHT-CLICK MENU

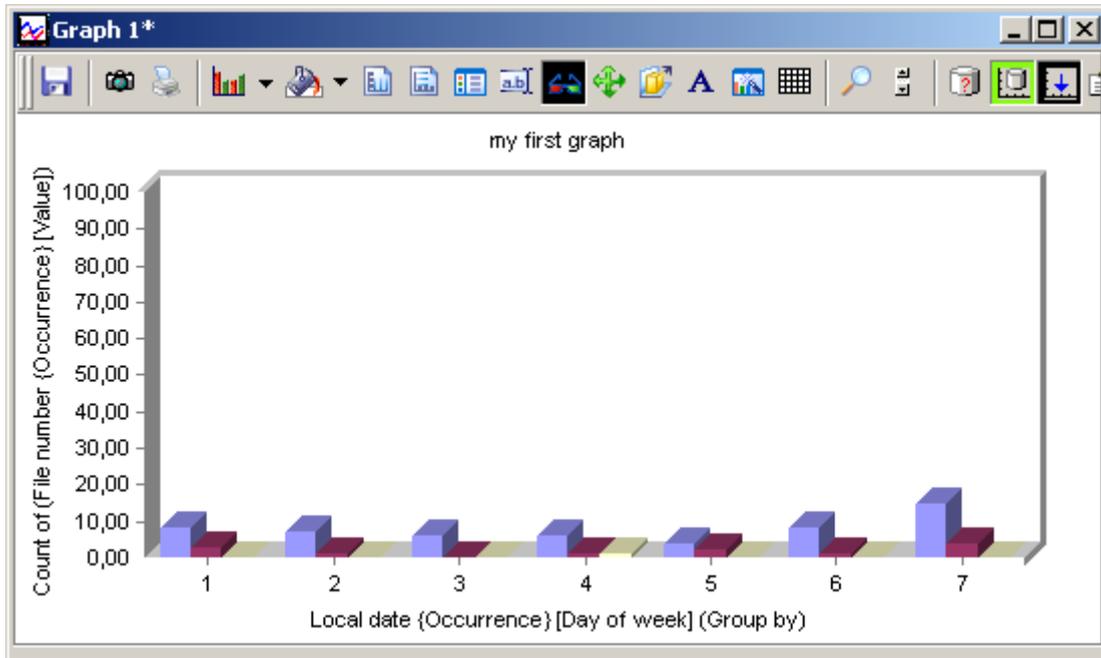
When you right-click inside the "Graph list" panel of the "Graph Library" window you get its "Right-click" contextual menu.



The menu-items are exactly those included in the "Edit" menu of the Grapher Main window ([see page 116](#)).

5.4. GRAPH WINDOW

The "Graph" window shows up when you open a Graph.



The "Graph" window includes:

- ▶ **Toolbar** - [\(see next section\)](#).
- ▶ **Graph** - the Graph shown corresponds to the last (re)draw made with the "Graph > Execute" menu-item.
If the Graph has never been drawn (executed), then its appearance is not yet meaningful.
- ▶ **Right-click menu** - [\(see next page\)](#).

5.4.1. GRAPH TOOLBAR

The Toolbar that is shown in the top of the Graph window includes functions operating on the Graph displayed in the window itself.



The functions are exactly those available in the "Graph" menu of the Grapher Main window ([see page 133](#)).

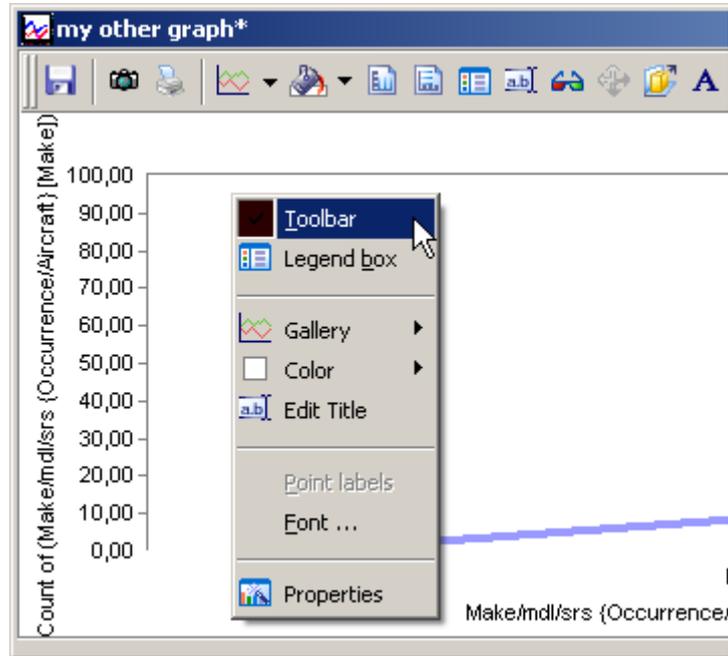
Stopping the mouse pointer (no clicking !) over the Toolbar icon-buttons causes the display of a Tooltip, i.e. a brief description of the actions-functions associated.



Clicking on the Toolbar and dragging it you can detach it and move it wherever you wish, even outside the Grapher Main window.

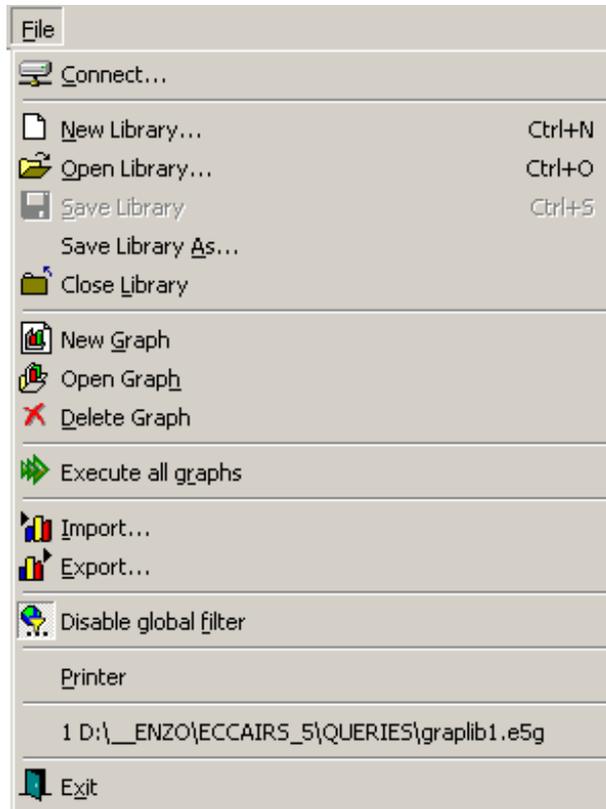
5.4.2. GRAPH RIGHT-CLICK MENU

The right-click contextual menu includes a few of the functions that you have in the "Graph" menu in the Grapher Main window and in the "Graph" window Toolbar .



5.5. FILE MENU

The File menu includes functions operating on Graph Libraries, including creating, opening and deleting of Graphs inside them.



Menu items:

- ▶ **Connect**
- ▶ **New Library**
- ▶ **Open Library**
- ▶ **Save Library**
- ▶ **Save Library As**
- ▶ **Close Library**
- ▶ **New Graph**
- ▶ **Open Graph**
- ▶ **Delete Graph**
- ▶ **Execute All Graphs**
- ▶ **Import**
- ▶ **Export**
- ▶ **Edit Global Filter / Disable Global Filter**
- ▶ **Printer**
- ▶ **Open Most Recently Used Library**
- ▶ **Exit**

5.5.1. FILE > CONNECT

Selecting "File > Connect " you repeat the Repository Logon made when starting the application ([see page 19](#)).

This may be useful if you need to change the Repository you are logged in.

5.5.2. FILE > NEW LIBRARY

To create a new Library select "File > New Library" menu-item.

The new, empty Graph Library is displayed in the Workspace.

Now you are ready to create a Graph ([see page 126](#)).

5.5.3. FILE > OPEN LIBRARY

To open a Library select the "File > Open Library" menu-item.

Then find and select a "Graph Library" file ([see page 114](#)) in the dialog window that shows up.

After closing the dialog window the new Graph Library is displayed in the ECCAIRS Grapher Workspace.

5.5.4. FILE > SAVE LIBRARY

Select the "File > Save Library" menu-item to save the currently open Library into its "Graph Library" file ([see page 114](#)).

If it is the first time you save the Library then you have to specify the file as with the "File > Save Library As" menu-item.

5.5.5. FILE > SAVE LIBRARY AS

Select the "File > Save Library As" menu-item to save the currently open Library into a different "Graph Library" file ([see page 114](#)).

Specify the "Graph Library" file name and the folder where to save it using the standard "Save" dialog.

5.5.6. FILE > CLOSE LIBRARY

Select the "File > Close Library" menu-item to close the currently open Library.

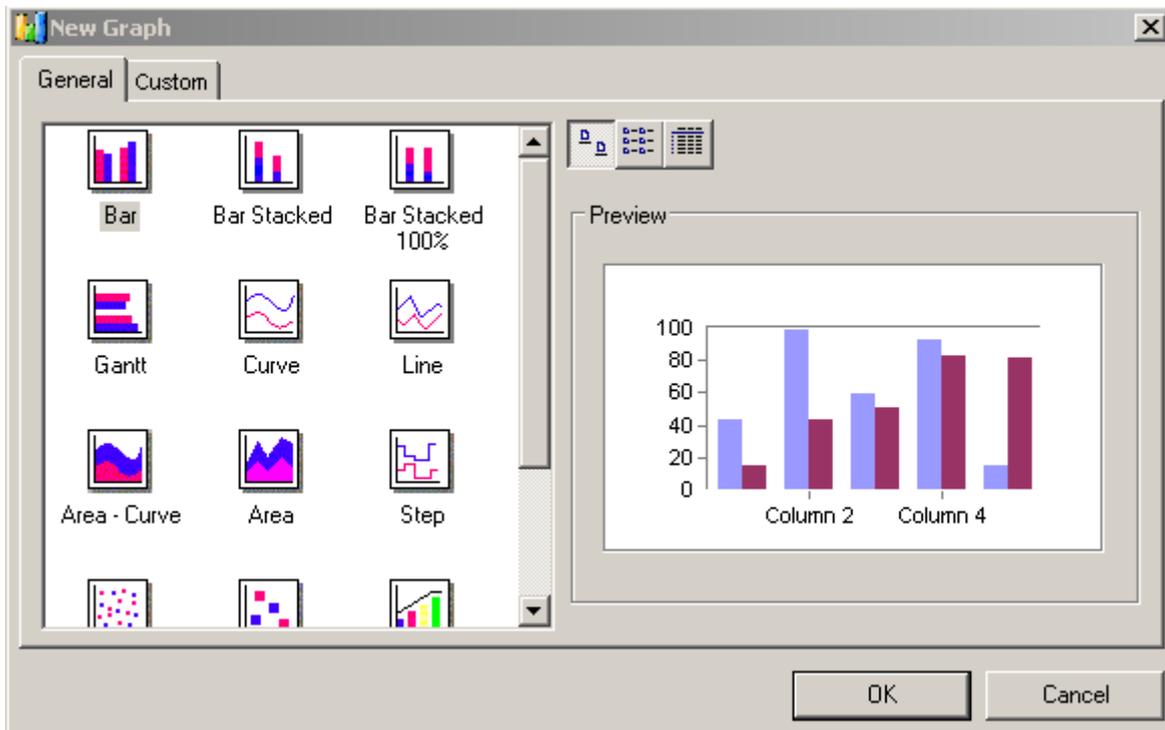
If you made any change inside the Graph Library (deleting, editing, renaming and creating Graphs) and you have not saved it, when you close it a dialog window will show up and ask you to confirm all changes.

If you answer "**No**" to this question then all changes previously initiated will not be made and the Library returns to the original state as it was when you opened it.

5.5.7. FILE > NEW GRAPH

To create a new Graph select the "New" button on the right hand side of the Library window or select the "File > New Graph" menu-item in the Grapher Main window.

You can select the type of Graph you want within the "New Graph" dialog that shows up.



A preview of the Graph you have selected is shown on the right to help you make your choice.

Using the three top buttons in the right you can display the Graphs as icons, list or detailed list.

If you have saved Graphs as templates ([see page 134](#)) then these are presented in a similar way inside the "Custom" tab-panel of the "New Graph" dialog .

Once selected the Graph type you have to assign a name to the Graph by typing it into the "Set Graph Name" dialog which shows up.

The Graph is then saved and displayed in the "Graph Library" window ([see page 120](#)).

It is possible to change the name and the Icon of a Graph later from the "Edit" menu ([see page 131](#)).

An icon and a name is assigned to every new Graph. If you change the type of Graph, or its function, it might be necessary to change the name and/or icon of the Graph.

To exit click:

- ▶ **OK** - to confirm.
- ▶ **Cancel** - to discard the changes.

5.5.8. FILE > OPEN GRAPH

To open an existing Graph select it first the Graph in the "Graph Library" window.

Then either:

- ▶ **Click the "Open" button** - the button is on the right hand side of the "Graph Library" window., or
- ▶ **Double-click on the Graph icon**, or
- ▶ **Select the "File > Open Graph" menu-item.**

The corresponding "Graph" window opens. You work inside there to set details and draw the Graph.

Note that the Graph shown on opening the "Graph" window corresponds to the last (re)draw made with the "Graph > Execute" menu-item.

If the Graph has never been drawn (executed), then its appearance is not yet meaningful.

Though it is only possible to open one Graph Library in the Workspace, more than one of its Graphs can be opened at the same time.

5.5.9. FILE > DELETE GRAPH

To delete a Graph, select it inside the "Graph Library" window and then select "File > Delete Graph" menu-item.

A confirmation dialog window shows up.

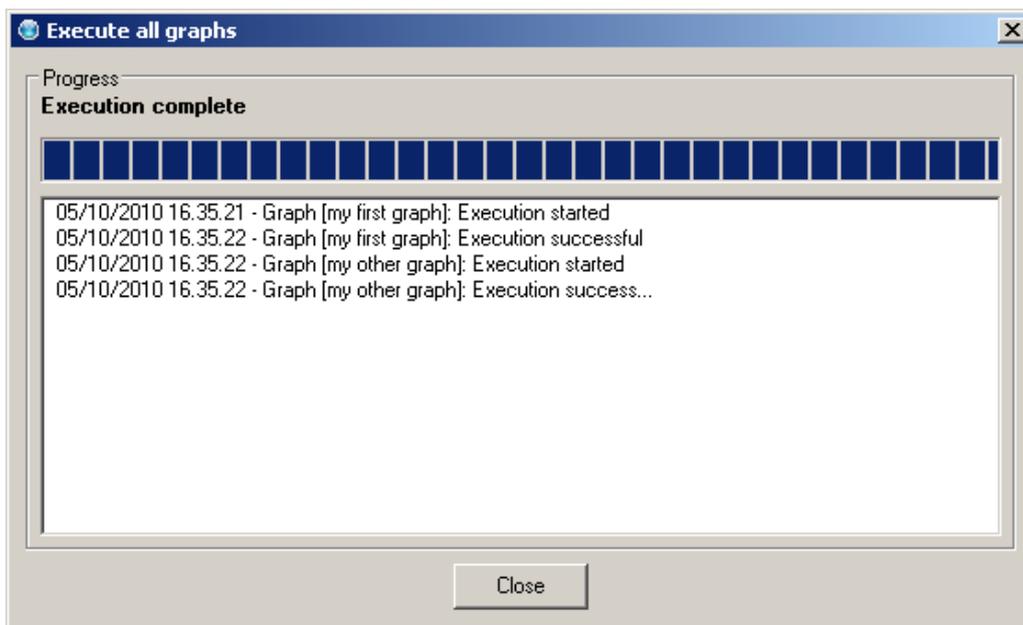
Select:

- ▶ **OK** - to confirm the deletion.
- ▶ **Cancel** - to abort the function.

5.5.10. FILE > EXECUTE ALL GRAPHS

The "File > Execute all Graphs" menu-item runs an "Graph > Execute" on all the Graphs in the currently open Graph Library.

An "Execute all graphs" dialog shows the progress and requires you to acknowledge the end of the job by clicking "**Close**".



5.5.11. FILE > IMPORT

To import an existing Graph Library into the currently opened one, select "File > Import" menu-item.

Select the name and location of the Graph Library to import using the standard "Open" dialog window shows up.

If the selected Library contains a Graph with the same name as the one already existing in the current Library then the imported Graph will have a number (between parenthesis) concatenated to its name in order to make it unique.

5.5.12. FILE > EXPORT

To export selected Graphs in a New Graph Library, select the Graphs you want to export and select "File > Export" menu-item.

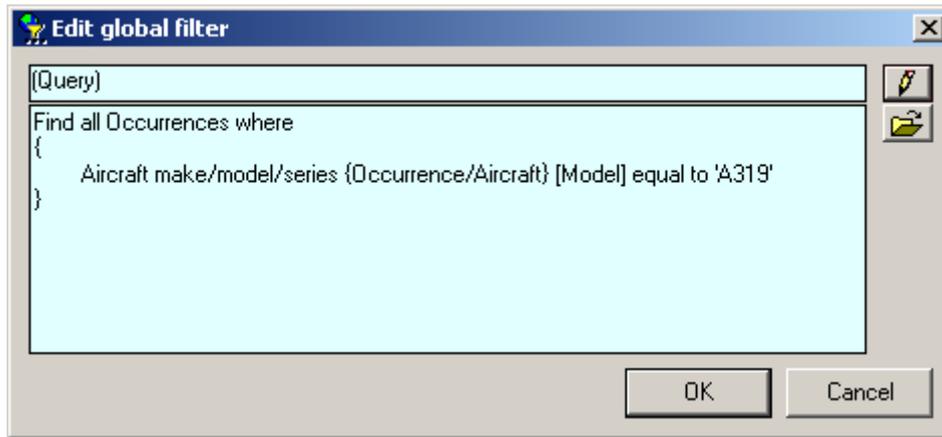
Set the name and location of the new Graph Library using the standard "Save" dialog window shows up.

5.5.13. FILE > EDIT A GLOBAL FILTER

You can define and apply a "Global Filtering" Query that will be executed upstream to pre-select Occurrences fed from the database to the Grapher application.

This will be executed upstream and independently from any other Query used within the ECCAIRS Grapher.

The "Edit Global Filter" dialog that it is shown displays in its lower panel either the Query used to perform the filter currently active, if so, or the Query used during the last filter activation.



Enable the Existing Global Filter Query

If you just click its "OK" button you accept the existing Query. This means that you are enabling the last used Query as Global Filter.

To define or edit Global Filter you can use either:

- ▶ **"Defined on the Spot" Query** - you can define an ah-hoc Query by clicking on the upper "pencil-shaped" icon-button on the top right of the dialog. You then use the standard "Query Editing" dialog form the "Query Builder" ([see page 281](#)) to define the Query performing the Global Filter.
- ▶ **Query from a Query Library** - you can use any Query included in a Query Library by clicking on the "folder-shaped" icon-button. You then use the standard "Query Builder" window to open Libraries and select the Query that will perform the Global Filter ([see page 259](#)). You can perform any operation allowed for Query Libraries and Queries within "Query Builder" window, for instance create new Queries in Libraries or edit existing Queries. In particular you may wish to open a Query in a Library and modify it in an ad-hoc mode for the Global Filter. Once the Query from the Library is selected, the "Query Builder" window closes, and the Query is displayed in the lower panel of the "Edit Global Filter" dialog. You can always use the "pencil-shaped" icon-button to modify "on the spot" the Query.

Click:

- ▶ **OK** - to exit and automatically enable the Global Filter.
- ▶ **Cancel** - to cancel the action.

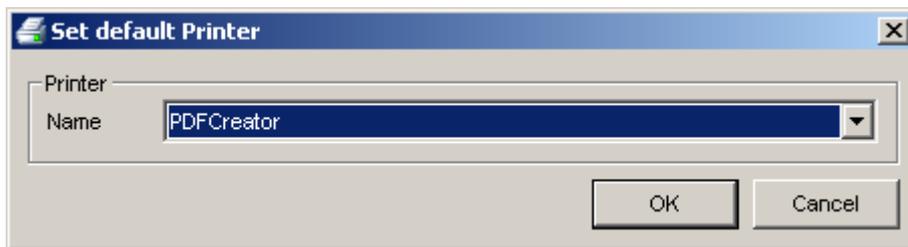
5.5.14. FILE > DISABLE GLOBAL FILTER

Once a Global Filter is defined/enabled the "File > Edit Global Filter" menu-items turns into the "File > Disable Global Filter". If you select this menu-item you disable the filter.

5.5.15. FILE > PRINTER

When you print a Graph using the "Graph > Print" menu-item ([see page 135](#)), it is printed on the default Windows printer.

If you want to print on a different printer you can set the target printer for the current session by selecting "File > Printer" menu-item.



5.5.16. FILE > OPEN MOST RECENTLY USED GRAPH LIBRARIES

The "File" menu will list just before the "File > Exit" menu-item the last four Graph Libraries that have been opened in previous sessions.

You can quickly open any of the last opened Graph Libraries by selecting its name.

5.5.17. FILE > EXIT

Exits the ECCAIRS Grapher application.

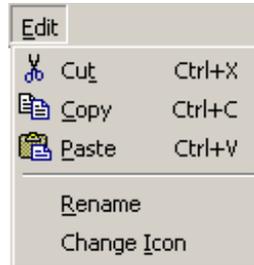
If any change has been made to the currently open Graph Library and its Graphs, then you will be asked to save them into the Occurrence Library File or discard them.

Click:

- ▶ **OK** - to confirm all changes.
- ▶ **Cancel** - cancel all changes made. The Library returns to the original state as it was when you opened it.

5.6. EDIT MENU

The Edit menu includes functions operating on Graphs inside Graphic Libraries.



Menu items:

- ▶ **Cut**
- ▶ **Copy**
- ▶ **Paste**
- ▶ **Rename**
- ▶ **Change Icon**

You can easily cut, copy and paste Graphs within a Graph Library. It is also possible to cut, copy and paste Graphs across different Graph Libraries.

For instance you can copy them on the clipboard, open the other Library and paste them there from the clipboard.

5.6.1. EDIT > CUT

Cuts selected Graphs. In case of multiple Graphs use the standard "**CTRL**" and "**SHIFT**" keyboard keys for multiple selections.

Then select the "Edit > Cut" menu-item.

The Graphs are removed from the "Graph Library" and "placed on the clipboard and can be taken from there using the "Edit > Paste" function.

5.6.2. EDIT > COPY

Copies one or more Graphs. In case of multiple Graphs use the standard "**CTRL**" and "**SHIFT**" keyboard keys for multiple selections.

Then select the "Edit > Copy" menu-item.

The Graphs are now placed on the clipboard and can be taken from there using the "Edit > Paste" function.

5.6.3. EDIT > PASTE

Pastes one or more Graphs. You must have either cut or copied them before.

Then select "Edit > Paste" menu-item.

The Graphs are now automatically taken from the clipboard and pasted in the library, changing their names if needed by concatenating a number in parenthesis.

5.6.4. EDIT > RENAME

To change the name of a Graph, select the Graph in the Library and then the "Edit > Rename" menu-item. You can also use the corresponding "Graph Library Right-click" menu-items.

This may be useful if you change the type of Graph or its function.

5.6.5. EDIT > CHANGE ICON

To change the icon associated to a Graph, select the Graph in the Library and then "Edit > Change Icon" menu-item. You can also use the corresponding "Graph Library Right-click" menu-items.

This may be useful if you change the type of Graph or its function.

5.7. GRAPH MENU

The Graph menu includes functions operating on Graphs.



Menu items:

- ▶ **Save Graph**
- ▶ **Save Graph As**
- ▶ **Save Graph As Template**
- ▶ **Save to Clipboard**
- ▶ **Print**
- ▶ **Vertical Grid / Horizontal Grid / Legend / 3D / Rotate / Z Clustered / Font / Properties**
- ▶ **Datagrid**
- ▶ **Zoom**
- ▶ **Scroll bar**
- ▶ **Build Query**

- ▶ **Edit Query**
- ▶ **Edit Axis**
- ▶ **Show Query Definition**
- ▶ **Use Global Filter**
- ▶ **Execute**
- ▶ **Toolbar**

5.7.1. GRAPH > SAVE GRAPH

When a Graph has been created or has been modified it needs to be saved in the Library in order to keep the changes.

Select the "Graph > Save Graph" menu-item to save the Graph into the current Graph Library.

If it is the first time you save the Library then you have to specify its name as with the "Graph > Save As" menu-item.

5.7.2. GRAPH > SAVE GRAPH AS

Select the "Graph > Save Graph As" menu-item to save the Graph with a different name into the currently open Library.

Specify its new name and folder location in the "Set Graph Name" dialog.

Click:

- ▶ **OK** - to confirm the save.
- ▶ **Cancel** - to cancel the action.

5.7.3. GRAPH > SAVE GRAPH AS TEMPLATE

New Graphs can be created from any of predefined Graph templates distributed with the application.

In addition the you can define your own custom template by opening the Graph you wish to use as template and selecting the "Graph > Save Graph As Template" menu-item.

The new template is listed in the "Custom" tab-panel of the "New Graph" dialog ([see page 126](#)) so that it can be used as the basis for new Graphs.

5.7.4. GRAPH > SAVE TO CLIPBOARD

The Graph's bitmap can be copied into the clipboard and used to paste it into any Windows application that accepts images, for instance MS Word.

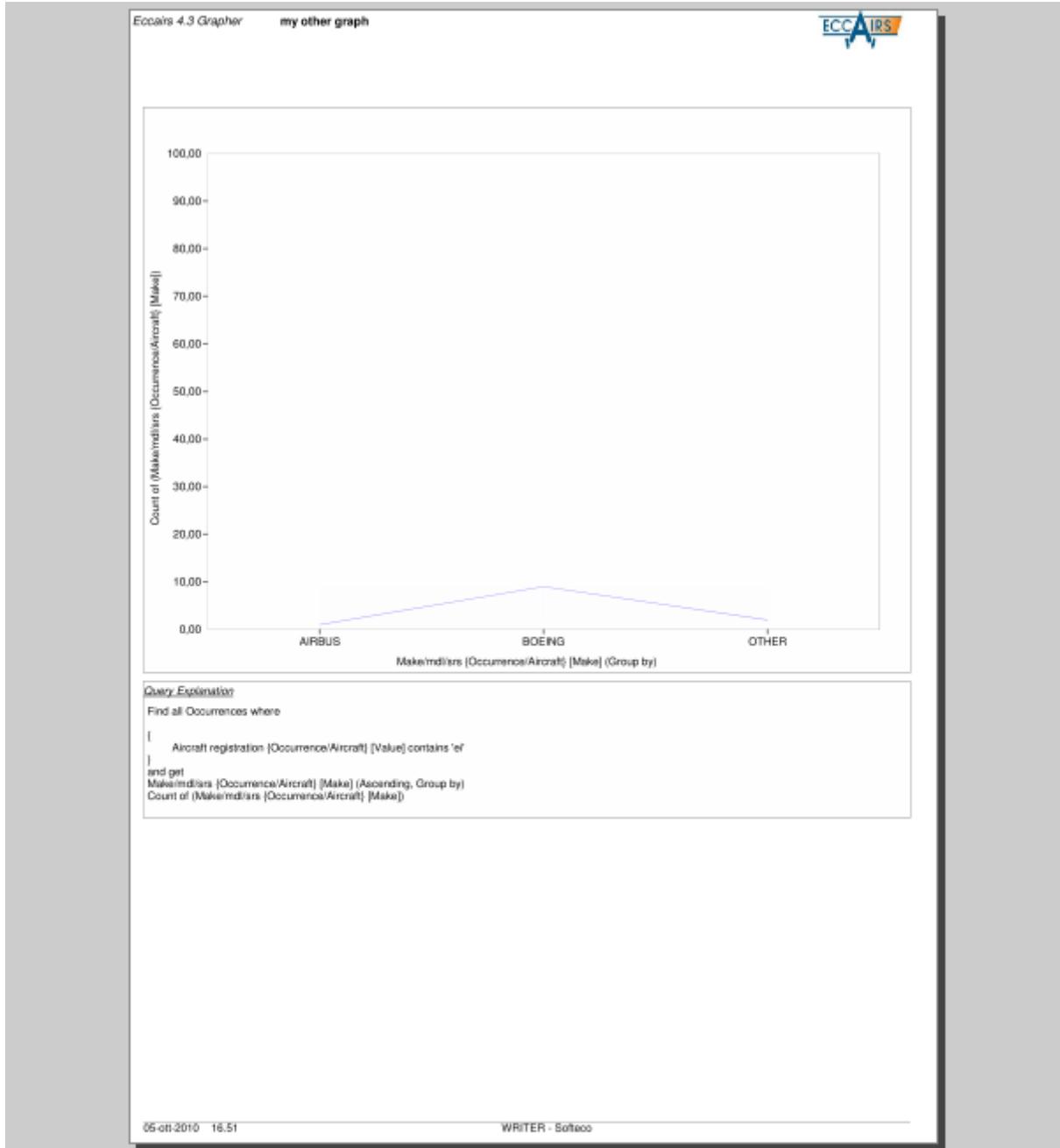
Open a Graph from the Library, execute it if not yet done so, and size it to your preferences or to the requirements of the target application. Sizing is important, since the bitmap sent to the clipboard reflects the size of the Graph as plotted on the PC screen.

Then select the "Graph > Save to Clipboard" menu-item.

Remember the Graph is copied as a bitmap, which is a static snapshot of the Graph taken at the moment you issued the "Graph > Save to Clipboard" command.

5.7.5. GRAPH > PRINT

To print a report with the Graph open it from the Library and then select "Graph > Print" menu-item.



The report consists of the Graph itself complemented with the Query description resulting from the main Graph properties.

Note

Calculated Data Series are not shown in the graphs Query description as printed on the Graph report. If you prefer to have a dedicated layout of a Graph you might consider to copy into the clipboard the Graph's bitmap ([see page 134](#)). paste it into a suitable application (e.g. MS Word) and add there manually the explanation text .

5.7.6. GRAPH > PROPERTIES

The visual properties of a Graph can be set from the "Graph" window Toolbar and/or from the items of the "Graph" menu of the Grapher Main window.

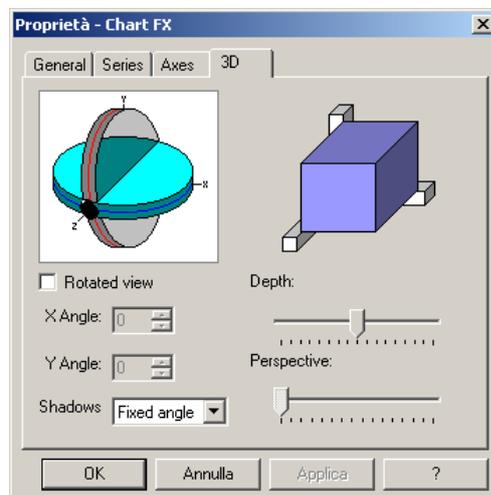
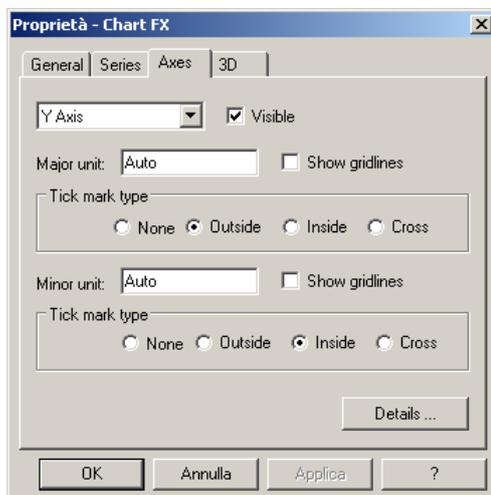
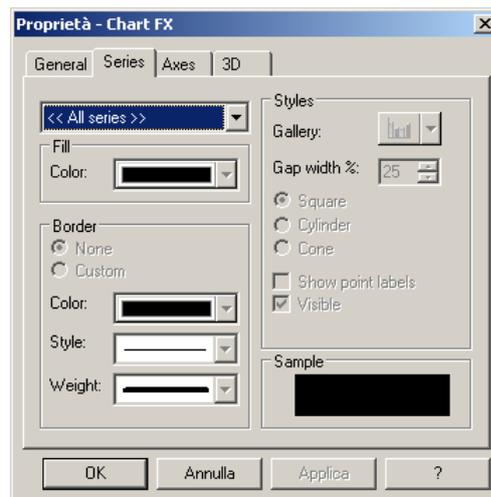
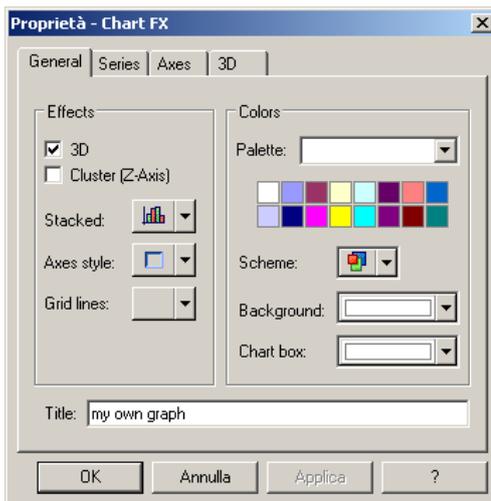
There is also a "Graph Right-click" menu available when right-clicking inside the "Graph" window.

Many of these properties can also (or only) be set by right-clicking in the Graph on the target item (axis, legend, title, etc.). Depending on the item selected a different pop-up menu is presented.

Typical properties that can be changed this way are colours, fonts, titles and chart type.

The properties you can set are:

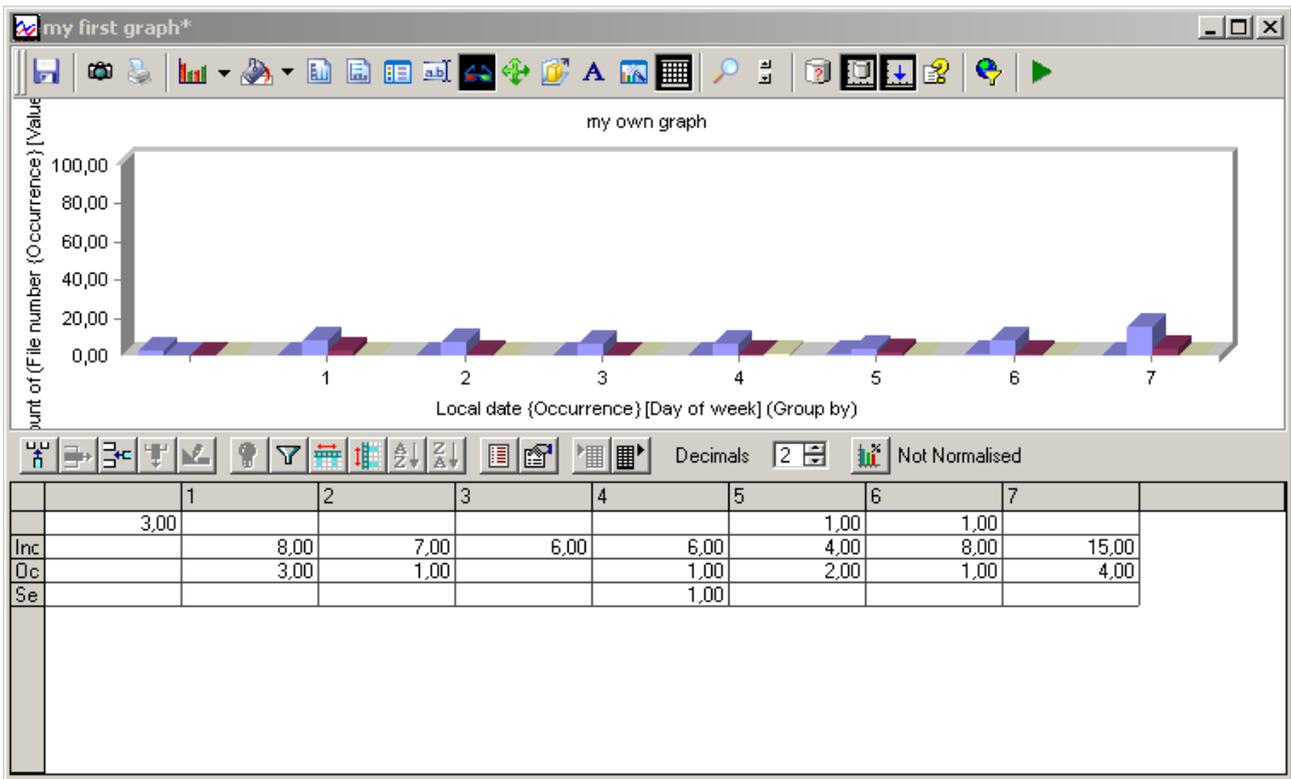
- ▶ Vertical Grid
- ▶ Horizontal Grid
- ▶ Legend
- ▶ 3D
- ▶ Rotate
- ▶ Z Clustered
- ▶ Font



5.7.7. GRAPH > DATAGRID

To display the Data Grid of an open Graph select "Graph > Datagrid". The data matrix is displayed below the Graph inside the "Graph" window.

The Data Grid is the spreadsheet-like matrix of values which is fed by the Queries on the database made to draw the Graph and possibly completed by additional calculated data-series. The Data Grid has a direct link to the Chart visualised in the Graph.



In the Data Grid, the first row and column define the labels to be used at the X-Axis and the Z-Axis or Legend.

The inner cells of the matrix contain the values linked to the Y-Axis values.

When executing a Graph, its Queries linked to the three axes retrieve data from the database and populate the Data Grid.

At this point you can perform additional elaborations on the Data Grid like adding rows or columns, hiding and filtering data, sorting and ordering information, normalisation, etc.

This flexibility makes it possible to prepare a number of useful standard Graphs that can be re-executed easily on the data and provide directly a set of safety indicators.

You can perform all the task on the Data Grid by the Data Grid Toolbar that is displayed on top of the matrix ([see page 148](#)).

5.7.8. GRAPH > ZOOM

By selecting this item from the menu or the Toolbar you can draw a rectangle around a certain area of the Graph to look in details at its contents.

You may still move around the other part of the Graph using the scroll bars which are displayed around the enlarged Graph.

To zoom out and see the whole Graph just select again the "Graph > Zoom" menu-item.

5.7.9. GRAPH > SCROLL BAR

If the number of values plotted on the X-Axis is high it might be useful to enable scrolling.

This will zoom in on a subset of data, while maintaining the scaling of the Y-Axis.

By using the scroll bar that comes up the User can move the visible part of the Graph.

To disable the scrolling select again the "Graph > Scroll bar" menu-item.

You can enable/disable the same zoom and scroll functions from the "Graph" window Toolbar.

5.7.10. GRAPH > BUILD QUERY

To determine which subset of the Occurrences in the database will serve as the starting point for populating the Graph you need to specify a Query.

To choose an existing Query or create a new one select the "Graph > Query Build Query" menu-item when a Graph is opened in the "Graph" window.

This action will start the ECCAIRS Query Builder ([see page 257](#)) application that, in the usual way, allows you to define the Query as restricting as needed.

5.7.11. GRAPH > EDIT QUERY

To restrict or modify a Query locally within the ECCAIRS Grapher environment, select "Graph > Edit Query" menu-item when a Graph is opened in the "Graph" window. This displays the "Query Editing" window used within the "Query Builder" ([see page 281](#)).

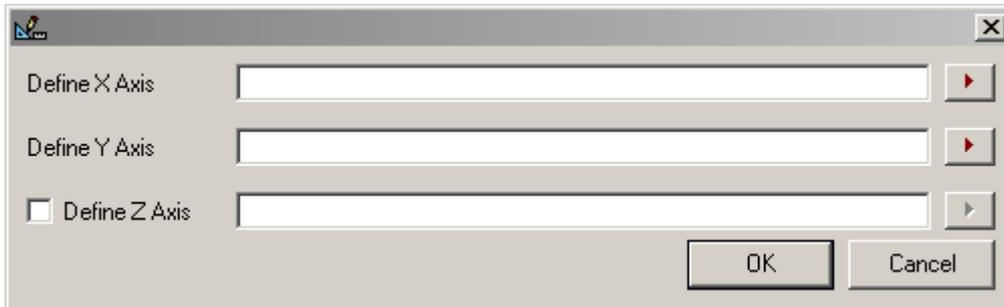
This allows to:

- ▶ Restrict locally a Query already opened from a Query Library, e.g. for any reason bound to the Graph to be created and not to the scope of the Query itself, without the need to edit or define new Queries using the Query Builder
- ▶ Execute or restrict Queries associated to a specific Graph, but not stored in a Query Library available locally, e.g. when modifying or refreshing a Graph in a Graph Library received by another User.

All subsequent actions of the ECCAIRS Grapher will only take into account the subset of the Occurrences resulting from the Query.

5.7.12. GRAPH > EDIT AXIS

This is a key point in the creation of a Graph: you choose the Attributes to be plotted in the Graph. You first have to open the Graph you wish to operate on. Then select "Graph > Edit Axis" menu-item The system displays an "Edit Axis" dialog.



To define any of the Axes click the "play" triangle-shaped button on the right of the corresponding Axis field.

The "Selection Builder" window that comes up is made of 2 sections:

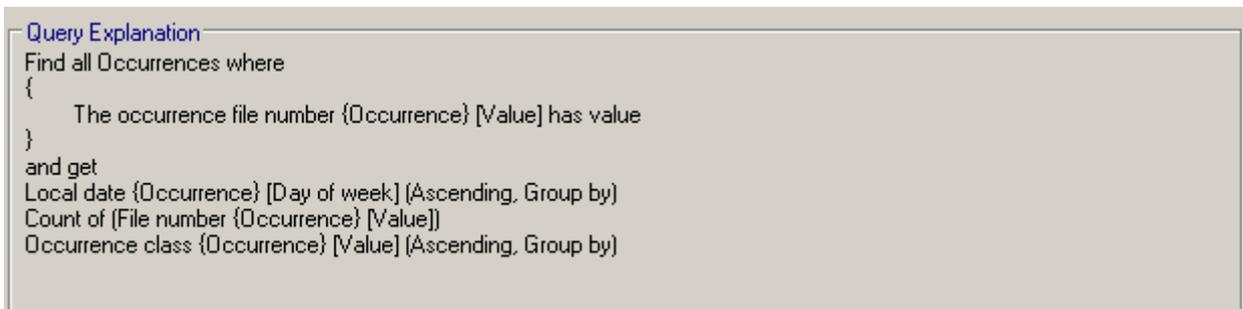
- ▶ **Attribute definitions** - to choose the Attribute that feeds the Axis by navigating through the Taxonomy data definition hierarchy.
- ▶ **Function definitions** - to choose a grouping scheme for the Attribute selected. The grouping schemes available depends on the specific Attribute chosen in the previous step. For example dates allow for grouping in weeks, months etc.

For any other details refer to information on the "Selection" window within the "Query Builder" ([see page 289](#)).

Each Graph must have the X-Axis and Y-Axis set otherwise the Graph will be considered not valid. The Z-Axis is an optional property and can be left empty if not required for a specific type of Graph. Choose the "Define Z-Axis" option to enable the field.

5.7.13. GRAPH > SHOW QUERY DEFINITION

Select "Graph > Show Query Definition" menu-item to show a textual description of the overall Query that feeds data to the Graph.



The Query Definition only shows which data-items are taken from which sub-set of the database. It does not describe the additional data series possibly added to the Data Grid ([see page 147](#)).

5.7.14. GRAPH > USE GLOBAL FILTER

You can enable or disable the Global Filter for the Graph currently open through the "Graph > Use Global Filter" menu-item.

If you select this menu-item when Global Filtering is enabled will disable it and vice versa.

If the Global Filter is disabled for the whole Grapher application, using the "File > Edit or Disable Global Filter" menu-item ([see page 129](#)) then enabling it for the Graph currently open has no effect.

- ▶  If the Global Filter is enabled for the Graph you see the icon associated with the menu-item displayed as a "pushed button". The same applies for the equivalent icon-button in the "Graph" window Toolbar.
- ▶  Otherwise the icon is displayed as a "un-pushed button".

5.7.15. GRAPH > EXECUTE

When you open a Graph the "Graph" window shows the results of the latest execution.

To draw the Graph with the actual information extracted from the Occurrence database it is necessary to Execute the Graph.

Selecting the "Graph > Execute" menu-item the Query is (re)executed into the database and all the Global Filtering (if any) and selection functions are applied. The result is plotted in the "Graph" window.

If you try to execute the Graph but you still have not defined at least the X and Y Axes then you get an error message.

You can also execute all the Graphs at once using the "File > Execute all Graphs" menu-item ([see page 128](#)).

5.7.16. GRAPH > TOOLBAR - ENABLE/DISABLE THE TOOLBAR

To show or hide the Graph window Toolbar right-click anywhere in the Graph and select the "Right-click > Toolbar" menu-item, or even select the "Graph > Toolbar" menu-item in the Grapher Main window.

5.8. OPTIONS MENU

The Options menu allows to set some options for the ECCAIRS Grapher application.



Menu items:

- ▶ **Label Type**
- ▶ **Always recalculate Y-Axis**

5.8.1. OPTIONS > LABEL TYPE

For those Attributes where a multilevel value structure exists it is sometimes difficult to understand exactly the meaning of the value at the lowest level since it is normally derived from the hierarchical path leading to the value.

In these cases it is necessary, even if it results in long strings, to print in the graph the long description of the Attribute, not only the lowest level.

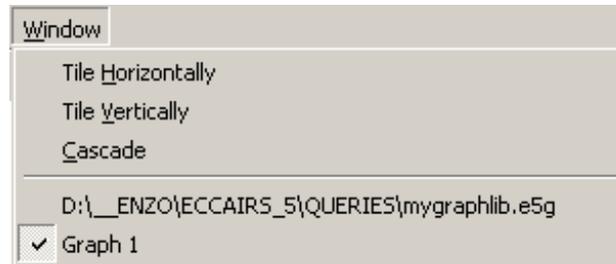
To force Graphs to use long descriptions or short ones select "Options > Label Type > Extended" menu-item or "Options > Label Type > Compact".

5.8.2. OPTIONS > ALWAYS RECALCULATE Y-AXIS

You select this option if you wish the Y-Axis to auto-scale to fit the content of the Graph while modifying it, for instance when adding or hiding columns, rows, etc.

5.9. WINDOW MENU

The Windows menu specifies how to display the sub-windows that you may open within the workspace inside the Main window.

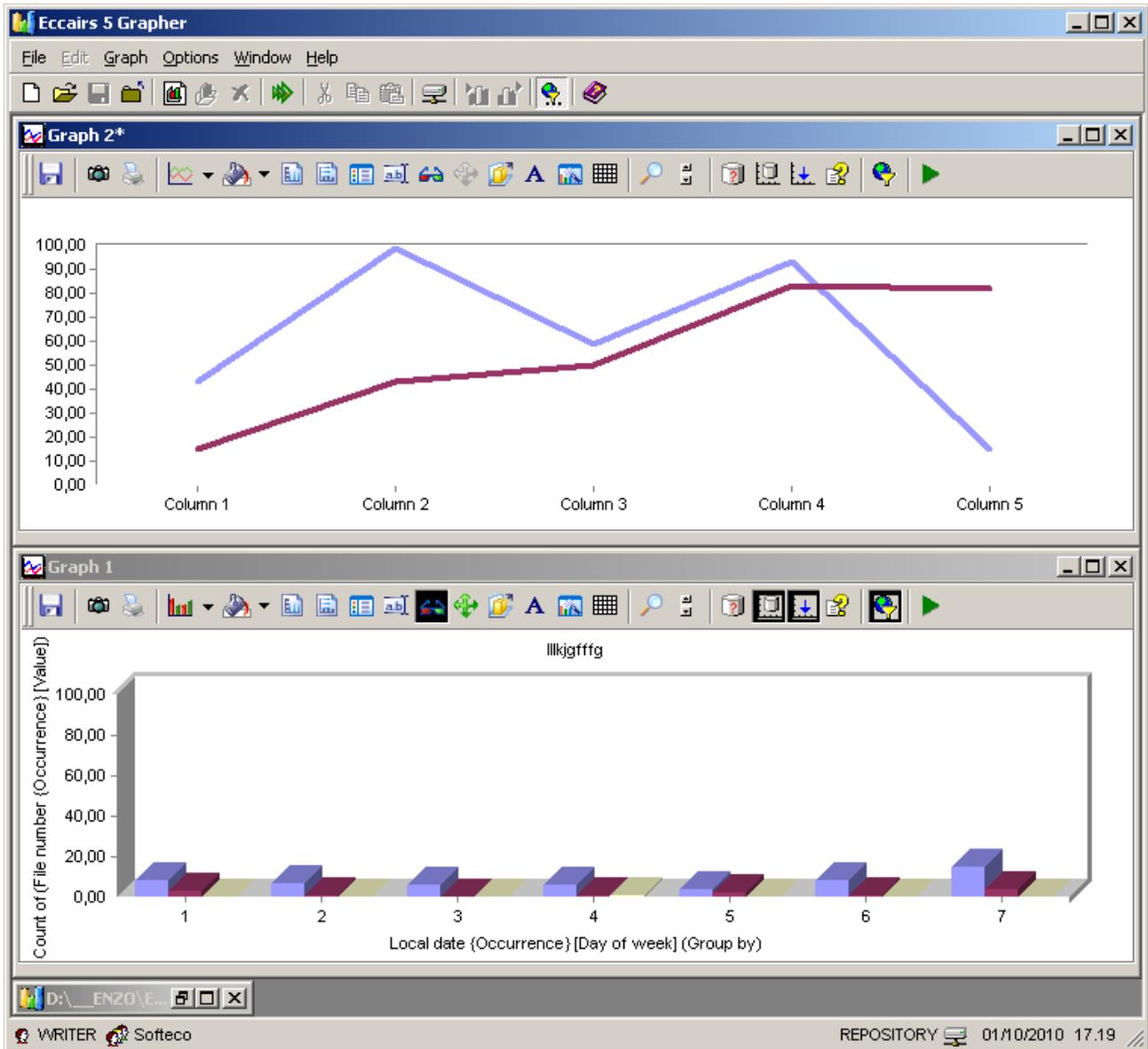


Menu items:

- ▶ Cascade the sub-windows
- ▶ Tile Vertically the sub-windows
- ▶ Tile Horizontally the sub-windows
- ▶ List of Currently Open document windows

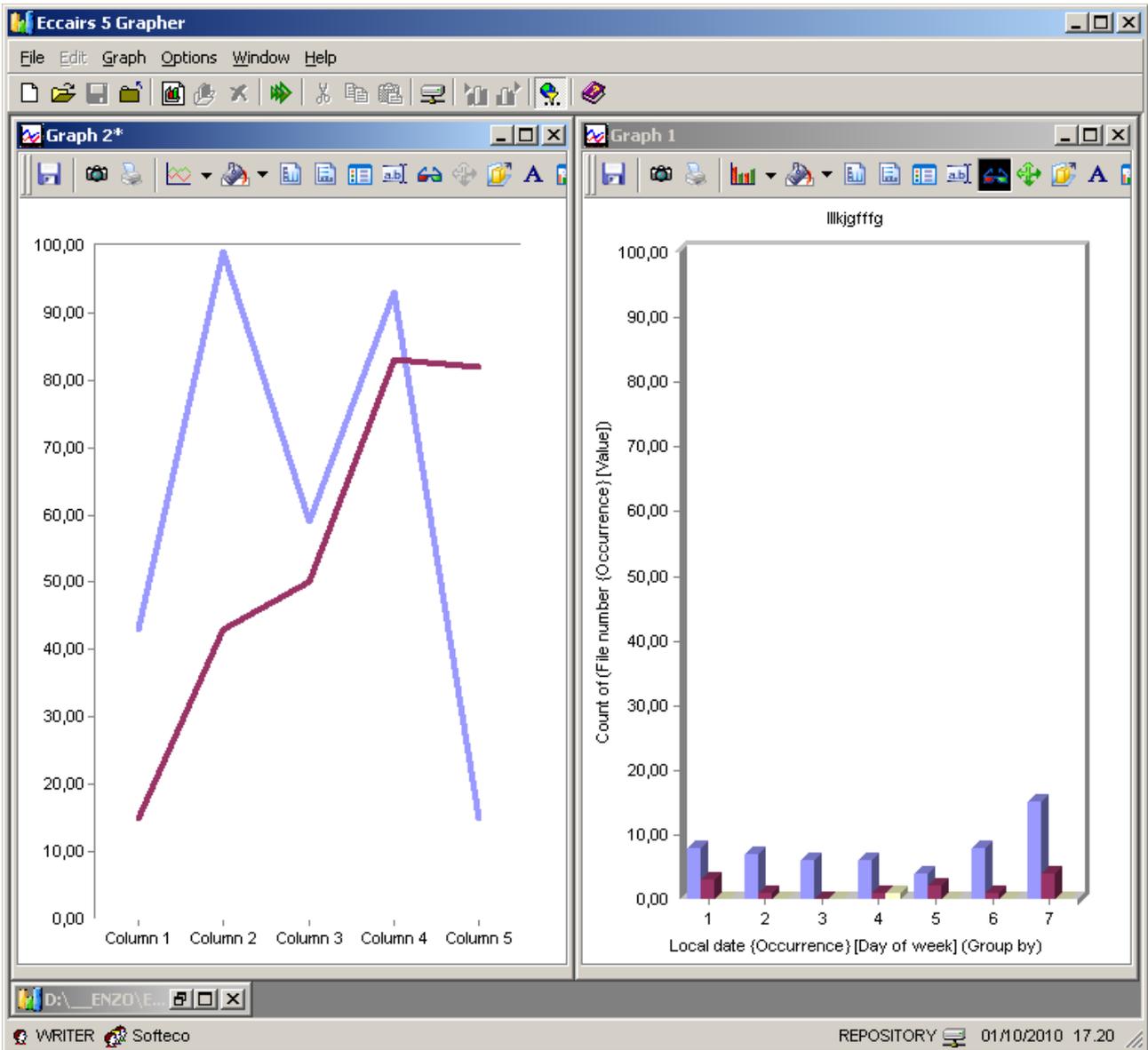
5.9.1. WINDOW > TILE HORIZONTAL

When multiple sub-windows are displayed in the Main window workspace you can display them tiled in Horizontal.



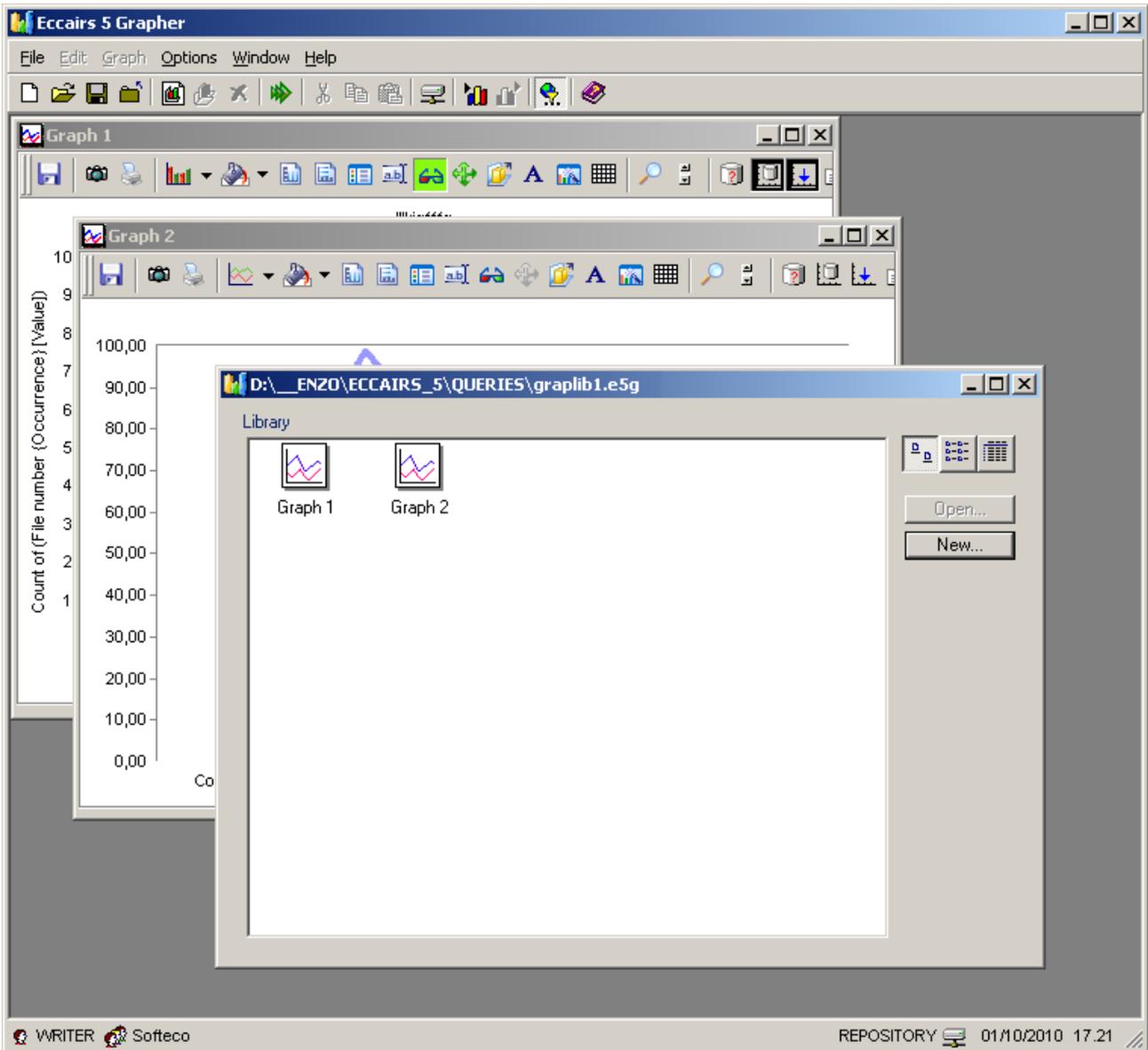
5.9.2. WINDOW > TILE VERTICAL

When multiple sub-windows are displayed in the Main window workspace you can display them tiled in vertical.



5.9.3. WINDOW > CASCADE

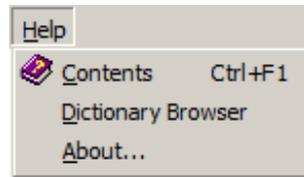
When multiple sub-windows are displayed in the Main window workspace you can display them in cascade.



5.9.4. WINDOW > LIST OF CURRENTLY OPEN DOCUMENT WINDOWS

If you click on one of the windows listed the corresponding window is brought to the foreground and become the active window (i.e. mouse and keyboard input will be directed to that window).

5.10. HELP MENU



Menu items:

- ▶ **Contents**
- ▶ **Taxonomy Browser**
- ▶ **About**

5.10.1. HELP > CONTENTS

Displays online help for the application you are running.

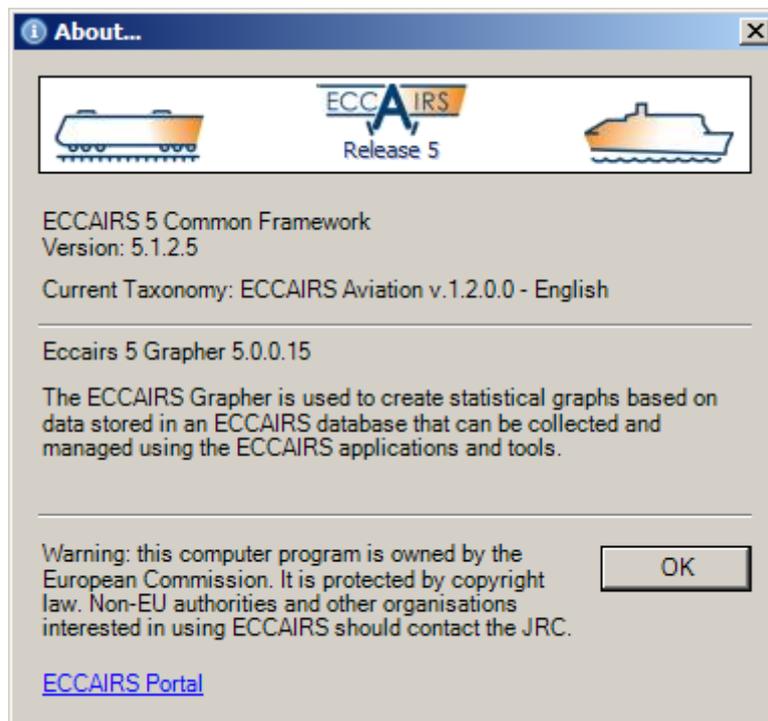
You can also invoke the online help at any time by pressing the "CTRL" and "F1" keyboard keys at the same time.

5.10.2. HELP > TAXONOMY BROWSER

Starts the Taxonomy Browser application, which allows you to examine in a separate window all details of the Taxonomy in use. This can be useful while editing Queries, selecting and editing Attributes.

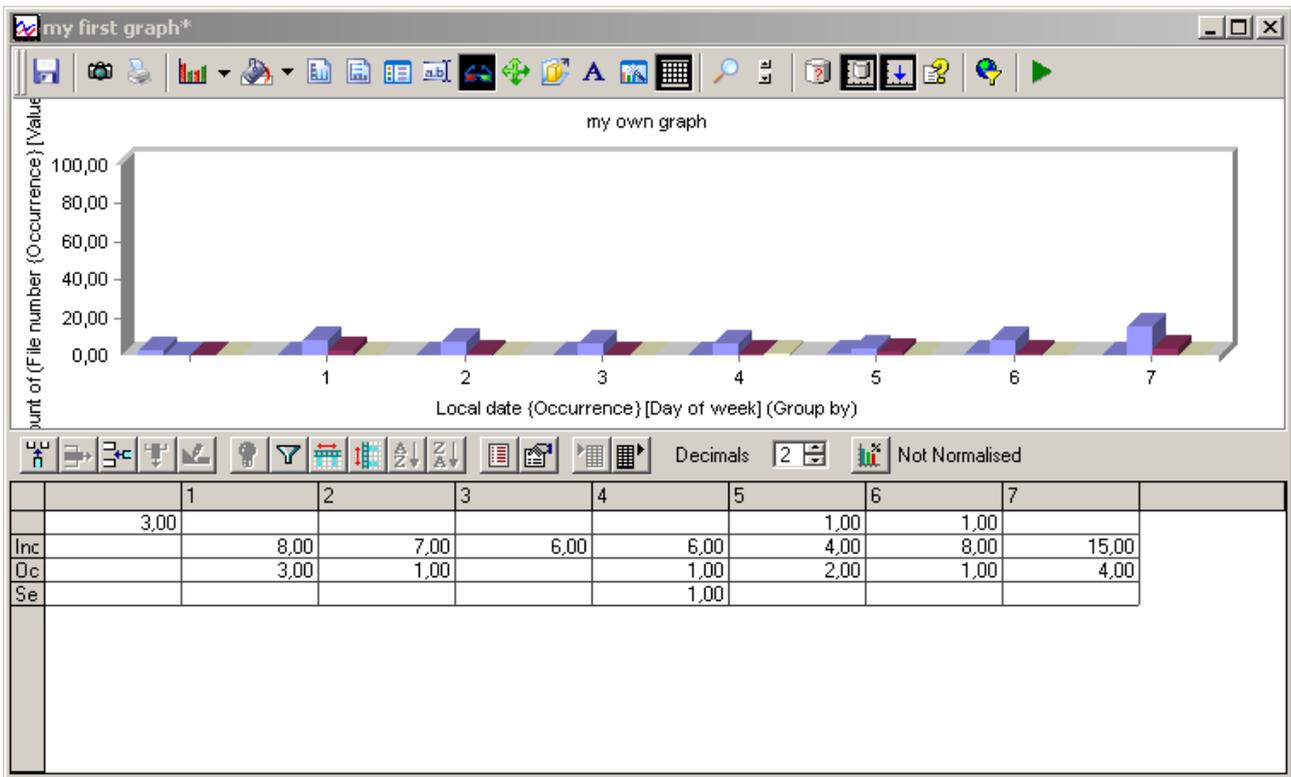
5.10.3. HELP > ABOUT

Opens a dialog displaying details on the version of the application you are running. Click the "OK" button to acknowledge and close the dialog.



5.11. DATA GRID WITHIN A GRAPH WINDOW

The Data Grid is the spreadsheet-like matrix of values which is fed by the Queries on the database made to draw the Graph and possibly completed by additional calculated data-series. The Data Grid has a direct link to the Chart visualised in the Graph.



In the Data Grid, the first row and column define the labels to be used at the X-Axis and the Z-Axis or Legend.

The inner cells of the matrix contain the values linked to the Y-Axis values.

When executing a Graph, its Queries linked to the three axes retrieve data from the database and populate the Data Grid.

At this point you can perform additional elaborations on the Data Grid like adding rows or columns, hiding and filtering data, sorting and ordering information, normalisation, etc.

This flexibility makes it possible to prepare a number of useful standard Graphs that can be re-executed easily on the data and provide directly a set of safety indicators.

You can perform all the task on the Data Grid by the Data Grid Toolbar that is displayed on top of the matrix.

5.12. DATA GRID TOOLBAR AND FUNCTIONS

The Data Grid offers functions to elaborate Occurrence data retrieved from the database. These functions are available via the Data Grid's Toolbar or its Right-click menu.



Stop the mouse over a button to show a tooltip describing its function.



Toolbar items/functions:

- ▶ **Adding Row and Columns**
- ▶ **Hide Rows and Columns**
- ▶ **Filter**
- ▶ **Sorting and Ordering**
- ▶ **Command List**
- ▶ **Load and Save Data**
- ▶ **Decimals**
- ▶ **Normalization**
- ▶ **Show and Hide Data Grid**

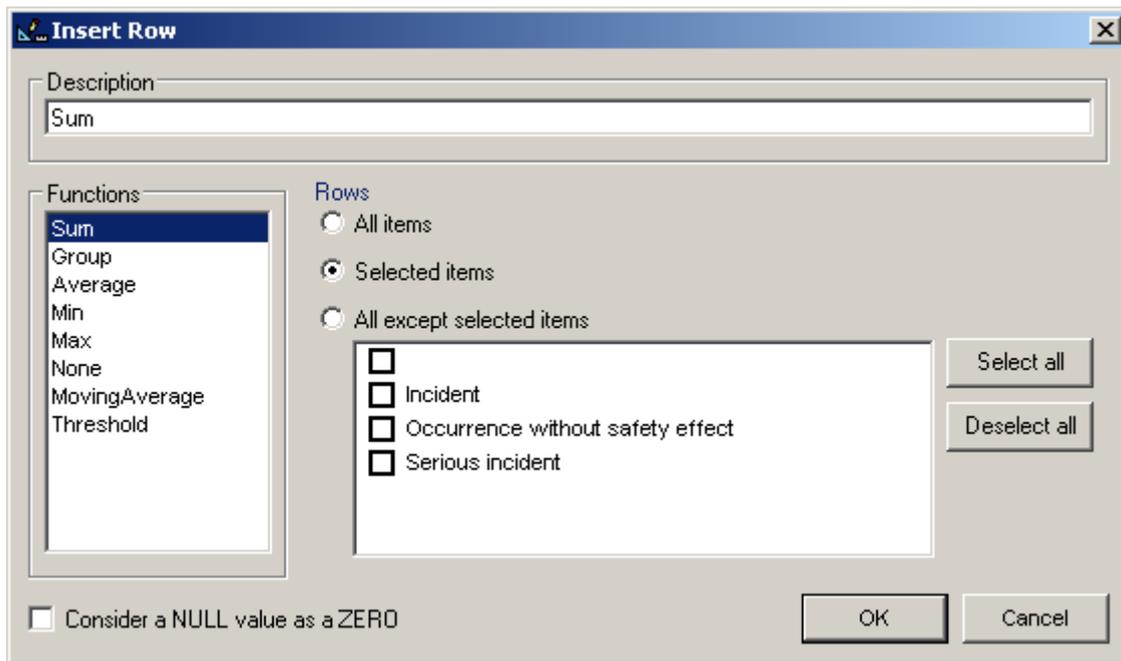
5.12.1. ADD ROW OR COLUMN

In addition to the data retrieved from the database by setting properties for Query, X-Axis, Y-Axis and Z-Axis it is possible to add rows and columns to the Data Grid, whose content is determined by simple calculations.

To add a row or a column in the grid use either:

- ▶ **Data Grid Toolbar** - the "Append Row" and "Append Column" icon-buttons on the Data Grid Toolbar, which adds a row/column at the last position of the grid.
- ▶ **Right-click menu** - select the row/column after which you wish to add the row/column and select the suitable Right-click menu-item. This way you can exactly determine where the new row/column will be added.

After you have added an "Insert Row/Column" dialog shows up to ask you what function should be used to populate the row/column added. The items displayed in the dialog varies according to the function you choose in its left function list.



The functions that can be applied are:

- ▶ **Sum** - Adds up the selected rows or columns (if available from the query) or any row or column in the Data Grid independent of what comes out of the query
- ▶ **Group** - Adds up the selected rows or columns (if available from the query) and hides these rows automatically in the graph.
- ▶ **Average** - Calculates the average of selected (if available from the query) or any cell of the same column or row.
You have to specify also if empty cells should be interpreted as ZERO (for example the average count of Occurrences) or NULL (for example the average age of a pilot).
- ▶ **Moving Average** - Calculates a moving average over the data-series indicated.
The moving Average calculates the average over a column and its 'n' preceding columns.
The value of 'n' can be set in the dialog window
- ▶ **Min** - Calculates the minimum of all the cells in the same row or column.
You have to specify also if empty cells should be interpreted as ZERO or NULL.
- ▶ **Max** - Calculates the maximum of all the cells in the same row or column.
You have to specify also if empty cells should be interpreted as ZERO or NULL.
- ▶ **Threshold** - Inserts a new row or column with a constant value for all the cells.
The constant value can be set in the dialog window.
- ▶ **None** - Inserts an empty row or column. You can type in values for each cell.

5.12.2. DELETE ROW OR COLUMN

Calculated rows and columns can be deleted from the Grid by selecting them and use either the "Delete Row"/"Delete Column" icon-buttons on the Data Grid Toolbar or the corresponding "Right-click" menu-items on the header of the selection.

Rows and columns resulting directly from the Query cannot be deleted from the grid. However they can be made invisible.

5.12.3. EDIT ROW OR COLUMN

To edit rows or columns in the Data Grid select the row or column use either the "Edit" icon-button on the Data Grid Toolbar or the corresponding "Right-click" menu-item with the mouse on the header of the selection.

5.12.4. SHOW/HIDE ROWS AND COLUMNS

Any row or column in the Data Grid can be made invisible in the Graph.

This is done by selecting the row or column and click the "Data Grid Toolbar > Hide/Unhide" icon-button or right-click with the mouse on the header of the selection and use the corresponding "Data Grid Right-click" menu-item.

An invisible row or column can be recognised in the Data Grid since it has a grey colour.

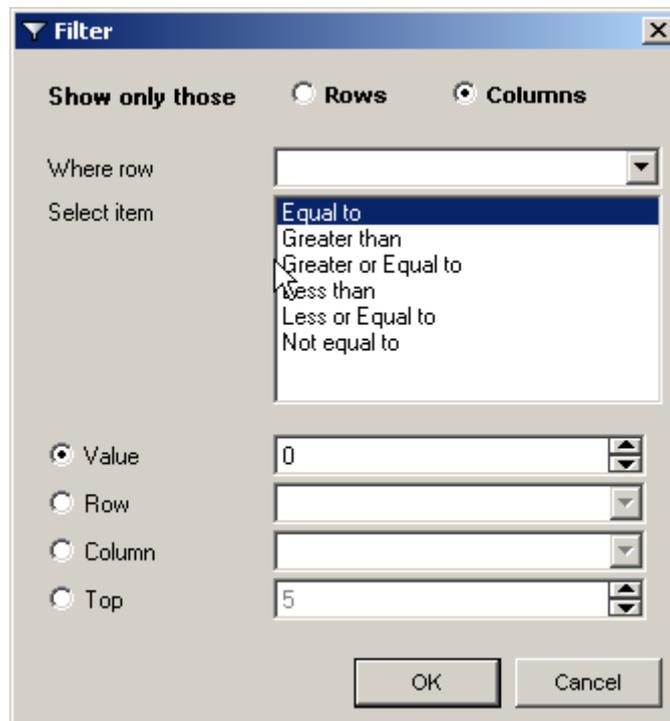
You may use the "Data Grid Right-click > Filter" function instead to show/hide rows and columns based on the result of a comparison function on the Data Grid.

5.12.5. SHOW ROWS AND COLUMNS UPON CONDITIONS

It is possible to hide automatically information by applying a filter on the Data Grid.

To filter a Data Grid click the "Data Grid Toolbar > Filter" icon-button.

A "Filter" dialog shows up where you can set the parameters for the filter:



Dialog items:

- ▶ **Show only those** - choose to filter out rows or columns.
- ▶ **Where Column (or Row)** - specify the condition required to show the column/row.
You may show only columns where the corresponding row satisfies a comparison function with a

reference value or row.

Vice versa you may show only rows where the corresponding column satisfies a comparison function with a reference value or column.

- ▶ **Operator** - define the operator for the comparison described above.
- ▶ **Value / Row / Column** - specify the reference value for the comparison. You set a fixed value or the values assumed in a specific row/column.
- ▶ **Top** - you can choose to hide all columns or rows but the top 'n' ones.

Filters can be applied and based on any type of row and column: those generated directly by the Query as well as those resulting from adding manually an item.

The concept of filtering is very powerful but needs some exercises to get used to.

For optimal results it is recommended to create some examples and analyse the results.

5.12.6. SORTING AND ORDERING

The Data Grid is filled exactly following the output of the database Query.

It is likely that the order in which the columns or rows are presented needs to be adapted to obtain a clearer result.

To facilitate this, it is possible to reorder and sort the Grid based on row and column headers as well as on the cell contents.

To differentiate between the two sorting approaches the order of columns and rows must be based on the contents of the Grid.

Ordering

Ordering is the process where the contents of the grid is not taken into account, but instead the meaning of the columns and rows, normally expressed by their headers and labels, determine the position in the grid.

This can be done by clicking on the "Data Grid Toolbar > Reorder Labels" or "Data Grid Toolbar > Reorder Headers".

In both cases a dialog comes up that allows for alphanumeric sorting as well as manually changing the order.

Sorting

Sorting can be done by clicking on the "Data Grid Toolbar > Sort Ascending" or "Data Grid Toolbar > Sort Descending".

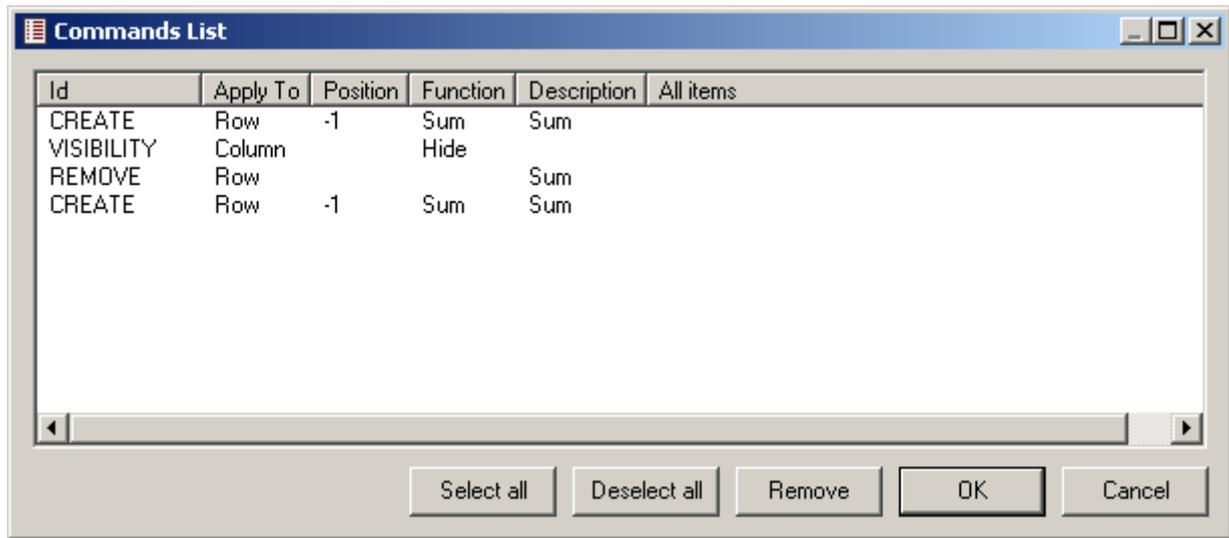
The Data Grid and the Graph immediately shows the result of the sorting.

In all cases the relation between the row-labels, column headers and the data is never changed since this would make the data inconsistent.

5.12.7. COMMAND LIST

All the actions you perform on a Graph (for example adding rows and columns, changing the visibility, editing cells, sorting the Grid, etc) are maintained in a list of commands that will be applied every time you execute the Graph ([see page 140](#)).

It is possible to view and modify the Command List by clicking on the "Data Grid Toolbar > Command List" icon-button.



The dialog window that shows lists all the commands, one per row. You can remove individual commands, or even all, that are have been attached to the core Query of the Graph to obtain the current Data Grid content. You can use the standard Windows multi-selection to select commands. When the dialog window is closed you will be asked if the changes are to be applied immediately on the Graph.

The Command List can grow rather rapidly and might contain superfluous commands (i.e. hide and show the same row). When the final result of the Graph is satisfactory it is wise to evaluate if there are unused commands present in the Command List of the Graph and remove them from the list. Sometimes it may be wiser to recreate the Graph by hand, avoiding unnecessary actions. This will increase performance and reproducibility of the Graph.

5.12.8. LOAD AND SAVE GRID DATA

The data contained in the Data Grid can be saved in a TAB delimited text file (*.txt) so that it can be used in other environments that offer additional functionality (for example, MS Excel).

To save data, click the "Data Grid Toolbar > Save" icon-button.

There are four different text output formats:

- ▶ **Text Files** - all data in the grid.
- ▶ **Transposed Text Files** - all data in the grid in a transposed format.
- ▶ **Text Files (Visible items only)** - only the visible data in the grid.
- ▶ **Transposed Text Files (Visible items only)** - only the visible data in the grid in a transposed format.

For your convenience it is also possible to load data back in the Data Grid from a TAB delimited text file.

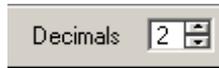
To load data from a text file, click the "Data Grid Toolbar > Load" icon-button.

When loading data, the Graph will have no link with the database. It could be used for simple visualisation purposes.

5.12.9. DECIMALS

In many cases the Data Grid and the Graph should present the numbers with a specific number of decimals.

This preference can be set from the Data Grid Toolbar by using the "Decimals" control.



5.12.10. NORMALISATION

Normalisation is the process where the sum of all values in a series is set to 1. Each value is then recalculated appropriately.

In ECCAIRS Grapher normalisation is implemented by expressing each value as percentage of the total.

Three types of normalisation can be applied on the Data Grid:

- ▶ **Normalisation on the X-Axis** - whereby the sum of all values for a particular value of the X-Axis is set to 100%.
- ▶ **Normalisation on the Z-Axis** - whereby the sum of all values for a particular value of the Z-Axis is set to 100%.
- ▶ **Normalisation by all values** - whereby the sum of all values in the grid is set to 100%.

Usage of normalisation functions can be somewhat confusing in particular when applied together with filters and calculated columns or rows.

Try to apply normalisation as the last command in a Graph command list.

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6. DATA MANAGER

6.1. WHAT IS THE DATA MANAGER

The ECCAIRS Data Manager application is a collection of tools for managing Occurrences in ECCAIRS Repositories.

They use the same basic building blocks of the ECCAIRS core applications: e.g. the Query Builder, logons, User interface elements, etc.

6.1.1. EXPORTER

The Exporter tool exports subsets the Occurrences in the database in a variety of different formats, respecting the security profiles for the current User as defined in the Repository.

Some examples of possible usage are:

- ▶ Creation of proprietary customised reports.
- ▶ Analysis of sub-sets of information in 3rd party environments.
- ▶ Free text searches on all Attribute values.
- ▶ Passing information to Users of non compatible systems.
- ▶ Creating de-identified Occurrence files.

6.1.2. DATA EXCHANGER

This tool includes four separate functionalities: Load from Occurrence file, Save to Occurrence file, Copy Between Repositories, Purge Repository.

6.1.2.1. LOAD FROM OCCURRENCE FILE

This function loads ECCAIRS Occurrence files in a Repository database. Occurrence files can be used to store, exchange and backup occurrences in an Repository.

Usage of this function is mandatory when you migrate from one version of ECCAIRS to a newer major version of ECCAIRS and the data format and/or Taxonomy has been changed. In this case passing your data via Occurrence files guarantees you that all appropriate conversions and adaptations are performed. You will then restore the Occurrences in the new version via the "Data Exchange > Load from Occurrence file" function.

6.1.2.2. SAVE TO OCCURRENCE FILE

This function saves Occurrence files into a Repository database. It is important to know that this function always respects the security settings of the repository's security profile, so that confidentiality, if applied, is maintained.

Though it is possible to save and load Occurrences from within the Browser application, in many cases using the "Data Exchange > Save to Occurrence file" and "Data Exchange > Load from Occurrence file"

is more efficient, more clear, less likely to generate problems and better documented in the form of extensive logging options.

Typical usage of the "Data Exchange > Save to Occurrence file" and "Data Exchange > Load from Occurrence file" functions are for saving/restoring the contents of your database to/from (a series of) Occurrence files. It is recommended to perform backups regularly using the related "Data Exchange > Load from Occurrence file" function, even if your database administrator makes back-ups of your databases in the specific database management environment.

6.1.2.3. COPY BETWEEN REPOSITORIES

You can use this tool to transfer Occurrence data from one Repository database into another one passing through a set of ECCAIRS Occurrence files.

You could use this tool as an extra safety measure in addition to, but not substituting, the regular database (RDBMS) backups.

It can be used on an ad-hoc basis to make a copy or it can be used when you migrate between two ECCAIRS or database (RDBMS) versions.

6.1.2.4. PURGE REPOSITORY

This tool can erase all the Occurrences in a Repository. The utility offers you the possibility to backup the Occurrences before the removal.

6.1.3. BATCHELOR

The Batchelor is a tool which is used to make Batch type of modifications to a set of Occurrences stored in a Repository database or in an Occurrence file.

It can be used to make simple straightforward changes but for advanced Users possibilities exist to make conditional changes and apply scripts on the data.

This tool works directly on the physical structure of an Occurrence, thus modifying the content of the Repository database.

The Batchelor is therefore aimed at advanced Users of the ECCAIRS Reporting System.

6.1.4. RESTORER

This tool let you restore identification data on de-identified Occurrence files.

This tool is made available in the Data Manager only if the Repository you log on allows this function for your User/Role.

6.1.5. DATA QUALITY

The Data Quality tool performs a quality check on Occurrences either from file or from a Query in the database. The quality is evaluated through a set of Rules stored in Rule Libraries.

6.2. HOW TO USE THE DATA MANAGER

6.2.1. EXPLORE THE DATA MANAGER BY ITS FUNCTIONS

You can then explore the Data Manager through its functions:

- ▶ Starting the Data Manager ([see page 19](#)).
- ▶ Data Manager Layout ([see page 158](#)).
- ▶ Exporter tool - to export Occurrences in a number of formats ([see page 165](#)).
- ▶ Data Exchanger tool - to exchange Occurrences between Occurrence files and Occurrences in Repository databases, between two Repository databases and to purge Occurrences in Repository databases ([see page 189](#)).
- ▶ Batchelor tool - to modify Occurrences in batch mode (i.e. not interactively) according to some conditions ([see page 211](#)).
- ▶ Restorer tool - to restore identification data in de-identified Occurrences ([see page 229](#)).
- ▶ Data Quality tool - to perform data quality checks on Occurrences ([see page 235](#)).

6.2.2. EXPLORE THE DATA MANAGER BY WINDOWS AND MENUS

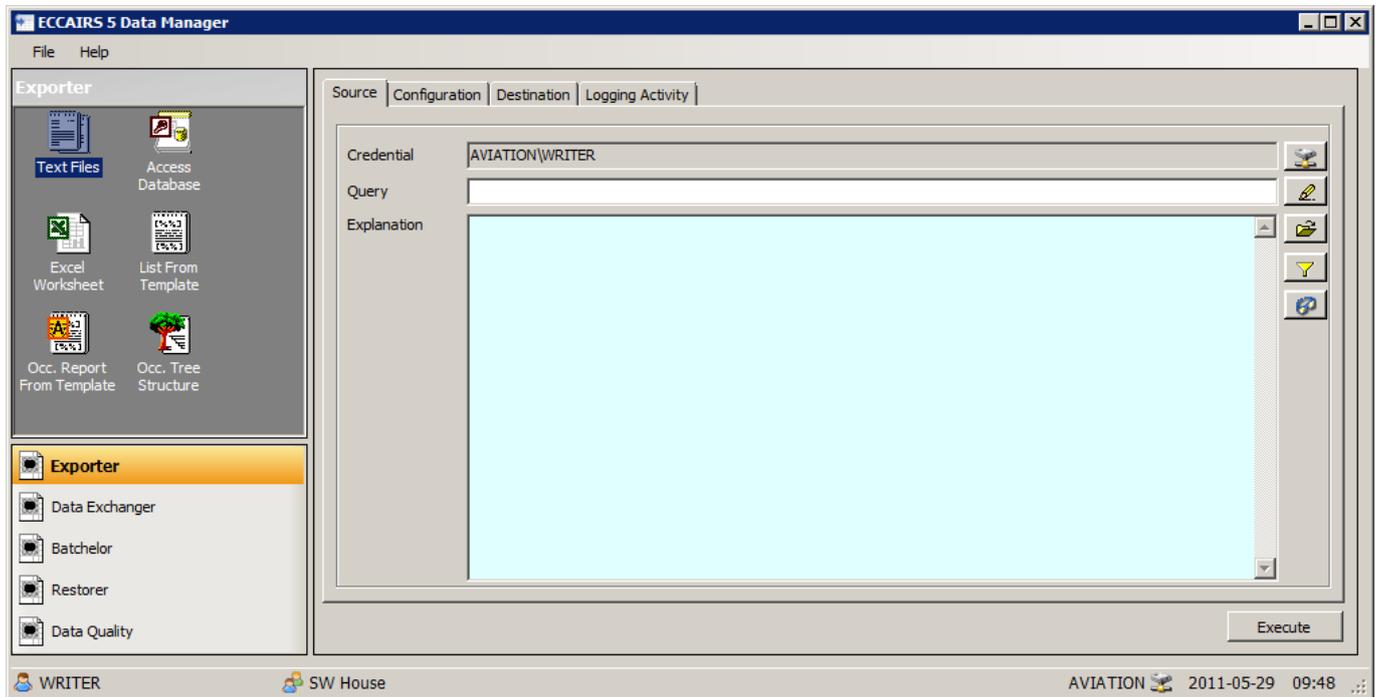
You may also explore the Data Manager through its layout, menus and toolbars:

- ▶ The Data Manager Main window ([see page 158](#)).
- ▶ File menu ([see page 161](#)).
- ▶ Help Menu ([see page 164](#)).
- ▶ Exporter: Functions and Tab-Panels ([see page 166](#)).
- ▶ Data Exchanger tool ([see page 189](#)):
 - Data Exchanger > Load: Tab-Panels ([see page 191](#)).
 - Data Exchanger > Save: Tab-Panels([see page 197](#)).
 - Data Exchanger > Copy: Tab-Panels ([see page 202](#)).
 - Data Exchanger > Purge: Tab-Panels ([see page 207](#)).
- ▶ Batchelor: Tab-Panels ([see page 211](#)).
- ▶ Restorer: Tab-Panels ([see page 229](#)).
- ▶ Data Quality: Tab-Panels ([see page 235](#)).

6.2.3. DATA MANAGER CONFIGURATION FILES

The application uses "Data Manager Configuration" files to store and recover configurations set for any of its tools.. These files have a (*.e5e) file extension.

6.3. DATA MANAGER WINDOW AND MENUS



The ECCAIRS Data Manager Main window is made up of a three-panel work area and two bars:

- ▶ **Menu bar** - at the top. Provides menus to manage the Data Manager configurations and help.
- ▶ **Data Manager panels** - the central work area divided into three panels.
- ▶ **Status bar** - placed at the bottom. Displays general information.

6.3.1. MENU BAR

The ECCAIRS Data Manager Main window has two menus accessible from the Menu bar:



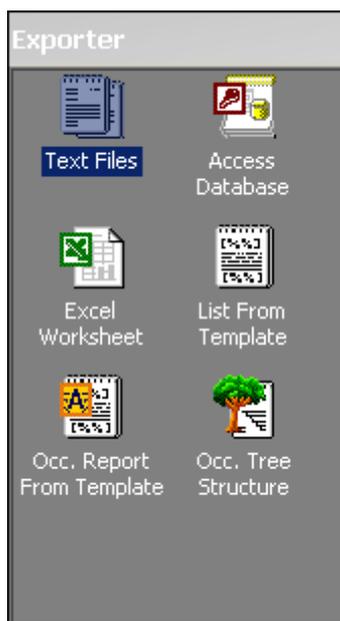
- ▶ **File menu** ([see page 161](#)).
- ▶ **Help menu** ([see page 164](#)).

6.3.2. DATA MANAGER PANELS

Tool Functions Selector panel

The "Tool Functions Selector" panel let you select a specific function inside the Tool selected in the "Tool selector" panel ([see next section](#)).

The Functions varies according to the specific Tool selected in the "Tool Selector" panel just below.



Tools Selector panel

The "Tools Selector" panel let you select one of the four Tools included in the Data Manager. Once you have selected the Tool you then have to select the Tool Function you wish to use.

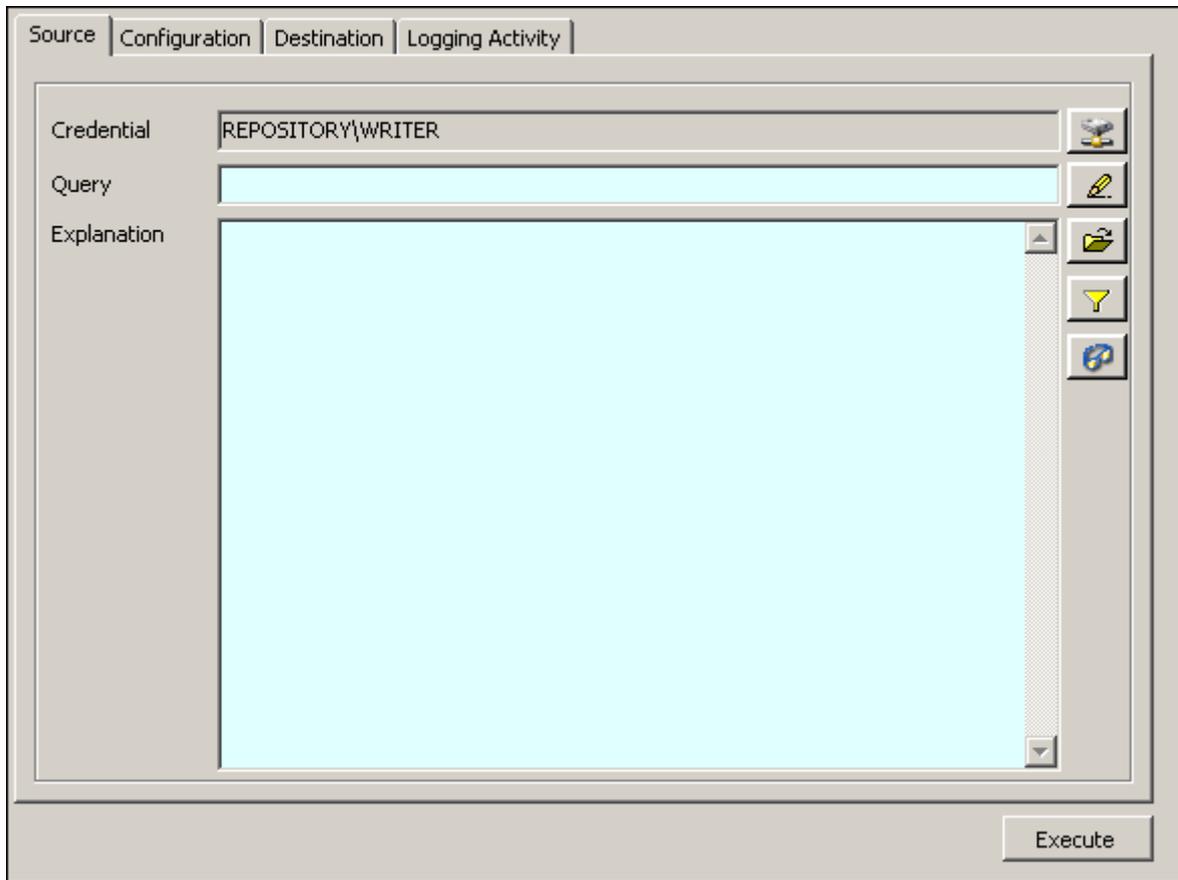


The four Tools included in the Data Manager are:

- ▶ **Exporter** - to export Occurrences in the database in a variety of different formats ([see page 165](#)).
- ▶ **Data Exchanger** - a multi-function tool to save/load Occurrences to/from Occurrences files, copy Occurrences across Repositories and purge Occurrences from a Repository ([see page 189](#)).
- ▶ **Batchelor** - to write command-sets to batch process Occurrences ([see page 211](#)).
- ▶ **Restorer** - to restore identification data to de-identified Occurrence files ([see page 229](#)).

Tool Configuration panel

The "Tool Configuration" panel is the place where you have to configure the Tool Function parameters, including source, destination and logging options.



Each configuration aspect is included in one of the four tab-selected panes whose content depends on the specific Tool Function selected

6.3.3. STATUS BAR

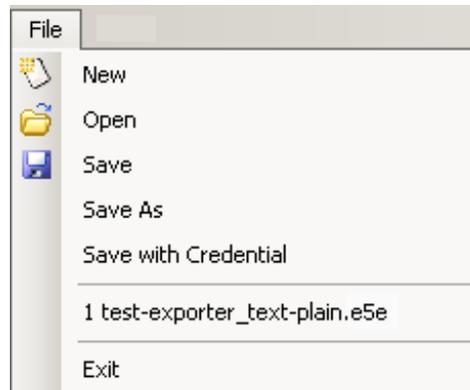


The Status bar displays, from left to right:

- ▶ the current User.
- ▶ the current Organisation.
- ▶ the current Repository name.
- ▶ the connection status to the database.
- ▶ the current time and date.

6.4. FILE MENU

The File menu includes functions to manage "Data Manager Configuration" files ([see page 157](#)) and to exit the application.



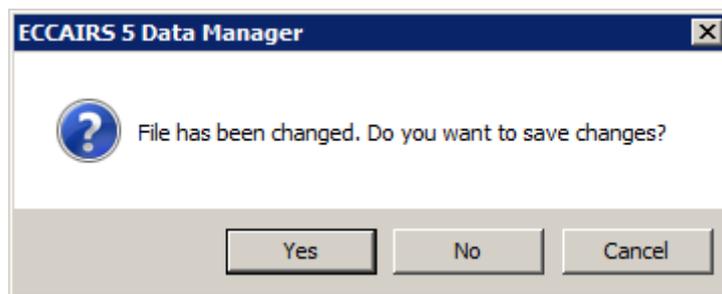
Menu items:

- ▶ **New**
- ▶ **Open**
- ▶ **Save**
- ▶ **Save As**
- ▶ **Save with Credentials**
- ▶ **Open Most Recently Used Data Manager Configuration files**
- ▶ **Exit**

6.4.1. FILE > NEW

To blank any configuration made within the Data Manager tools without exiting the Data Manager itself, select "File > New" menu-item.

If any setting was made to any of the configuration panel of any tool and function, then a dialog shows us to ask you to save them into an "ECCAIRS Data Manager Configuration" file ([see page 157](#)).



Click:

- ▶ **OK** - to save the current configuration.
The system let you specify a filename and folder with the standard "Save" dialog that shows up.
- ▶ **Cancel** - to discard the current configuration.

6.4.2. FILE > OPEN

To open a "Data Manager Configuration" file select the "File > Open" menu-item.
Find and select the file in the standard "Open" dialog that shows up.

Once the file has been loaded you will find into the tools configuration panels all the settings previously saved.

6.4.3. FILE > SAVE

Select the "File > Save" menu-item to save the current configuration of the tools into a "Data Manager Configuration" file ([see page 157](#)).

If it is the first time you save the configuration then you have to specify the file as with the "File > Save As" menu-item.

6.4.4. FILE > SAVE AS

Select the "File > Save As" menu-item to save the currently configuration of the tools into a different "Data Manager Configuration" file ([see page 157](#)).

Specify the file name and the folder where to save it with the standard "Save" dialog that shows up.

6.4.5. FILE > SAVE WITH CREDENTIALS

Select the "File > Save with Credentials" menu-item to save both the current configuration of the tools and the Repository access credentials used to execute them into the "Data Manager Configuration" file ([see page 157](#))

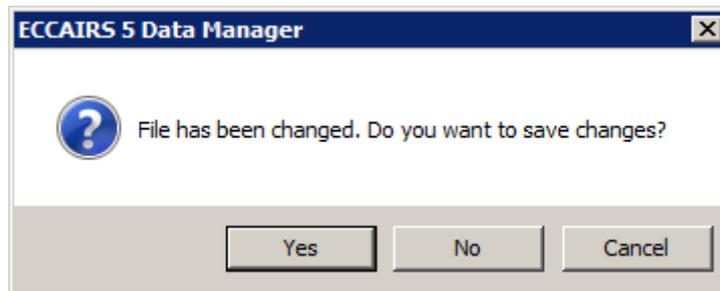
6.4.6. FILE > OPEN THE MOST RECENTLY USED CONFIGURATION FILES

You can quickly open any of the last opened "Data Manager Configuration" files by selecting its name among the menu-items listed just before the "File > Exit" menu-item.

6.4.7. FILE > EXIT

Exits the ECCAIRS Data Manager application.

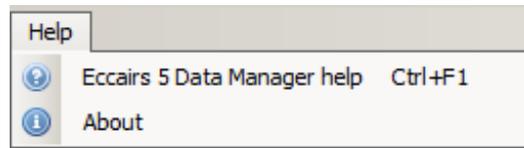
If any change has been made to any of the configuration panel of any tool and function, then a dialog shows us to ask you to save them into an ECCAIRS Data Manager Configuration file ([see page 157](#)).



Click:

- ▶ **OK** - to save the current configuration. Specify a Data Manager Configuration filename and folder with the standard "Save" dialog that shows up.
- ▶ **Cancel** - to exit the Data Manager without saving the configuration.

6.5. HELP MENU



The Help menu has two items:

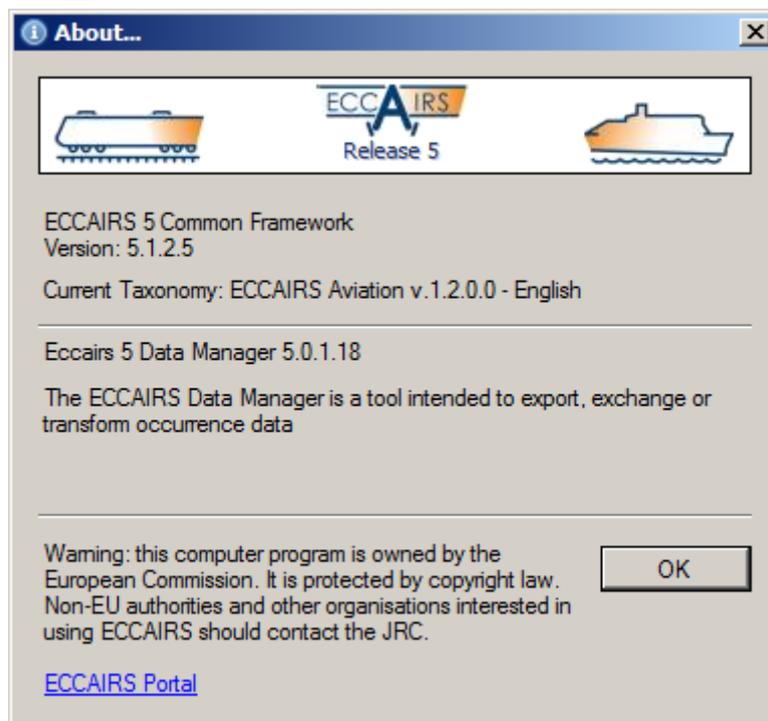
- ▶ **Contents**
- ▶ **About**

6.5.1. HELP > CONTENTS

Displays online help for the application you are running. You can also invoke the online help at any time by pressing the "CTRL" and "F1" keyboard keys at the same time.

6.5.2. HELP > ABOUT

Opens a dialog displaying details on the version of the application you are running. Click on the "OK" button to acknowledge and close the dialog.



6.6. EXPORTER TOOL

The Exporter tool exports subsets the Occurrences in the database in a variety of different formats, respecting the security profiles for the current User as defined in the Repository.

Some examples of possible usage are:

- ▶ Creation of proprietary customised reports.
- ▶ Analysis of sub-sets of information in 3rd party environments.
- ▶ Free text searches on all Attribute values.
- ▶ Passing information to Users of non compatible systems.
- ▶ Creating de-identified Occurrence files.

To get more information follow these links:

- ▶ Using the Exporter ([see page 165](#)).
- ▶ Exporter Functions and Tab-Panels ([see page 166](#)).

6.6.1. USING EXPORTER

The Exporter tool provides different options for exporting data. You select them through the "Tool Function" selector ([see page 158](#)).

If you wish to export only some of the Attributes of the Occurrences extracted by a Query, then you have the following output options:

- ▶ Exporting selected Attributes from a database into text file(s) ([see page 174](#)).
- ▶ Exporting selected Attributes from a database into an Access Database ([see page 176](#)).
- ▶ Exporting selected Attributes from a database into an Excel Workbook ([see page 178](#)).

If you wish to export all the Attributes of the Occurrences extracted by a Query, then you have the following options:

- ▶ Exporting Occurrences from a database or Occurrence file into a template ([see page 185](#)).
- ▶ Exporting Occurrences from a database or Occurrence file into a text file as a tree. ([see page 187](#)).

Finally, you may wish to export a list of Attributes for each Occurrence using a template ([see page 182](#)).

The first three export-options always provide a pair of tables as output. These tables can be in the form of text files, Access tables and in the form of Excel spreadsheets. The logical contents is always the same: Attributes listed in Flat Format or/and Expanded Format ([see page 180](#)).

When exporting all Attributes, or the list of Attributes, the source Occurrences you want to export can be provided either by a Query on the database or by an Occurrence file.

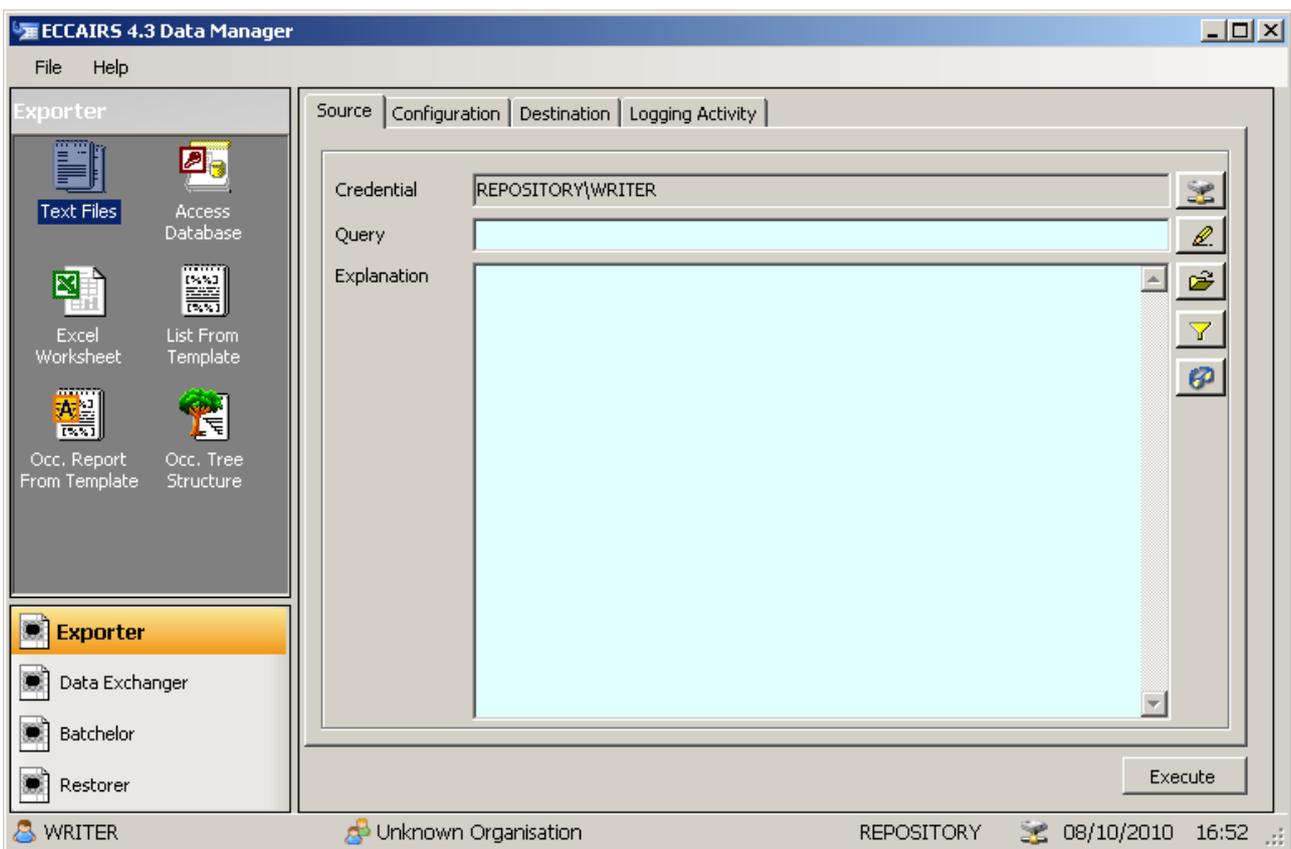
The general operating sequence to run the Exporter is:

- ▶ Select the desired export format in the Tool Functions upper left panel ([see page 159](#)).
- ▶ Select the destination file name and folder in the "Destination" tab-panel ([see page 171](#)).
- ▶ Select the source Occurrences to be exported, using the "Source" tab-panel ([see page 168](#)).
- ▶ Set the "Configuration" tab-panel:

- "Text File", "Excel Worksheet" and "Access Database" export functions - specify the Attributes to be exported ([see page 170](#)).
 - "List from Template" export function - specify the template file and the selections to get the Attribute values from the database ([see page 183](#)).
 - "Occurrence Report from Template" export function - specify the template file ([see page 186](#)).
 - "Occurrence Tree Structure" export function - specify the type of tree to use (Taxonomy or any of the Views) and the value description type (short, detailed, etc) ([see page 188](#)).
- ▶ Specify the logging options in the "Logging Activity" tab-panel ([see page 173](#)).
 - ▶ Click the "**Execute**" button.
 - ▶ According to the specific export-format choice, other dialog boxes may be displayed for additional choices.
 - ▶ The export output file is generated.

6.6.2. EXPORTER: FUNCTIONS AND TAB-PANELS

The Exporter tool includes six functions and a set of four configuration tab-panels:



- ▶ Exporter functions/options - you can select them in the upper left function panel:
 - **Text Files** - to generate a pair of text files containing a number of specified Attributes of the selected Occurrences.
 - **Access Database** - to generate an Access database file containing a number of specified Attributes of the selected Occurrences.

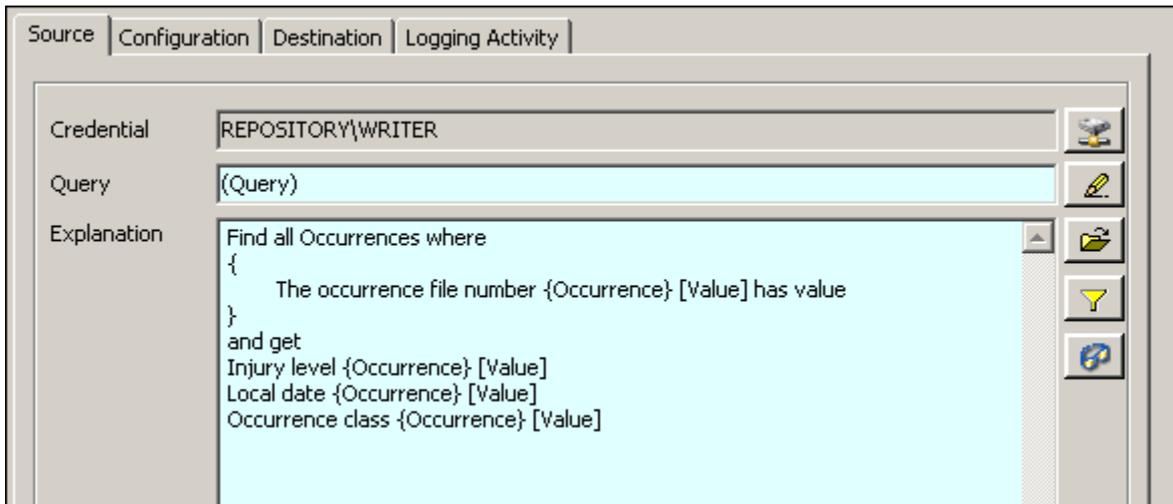
- **Excel Worksheet** - to generate an Excel worksheet file containing a number of specified Attributes of the selected Occurrences.
 - **List from Template** - to generate a file where a few of the Attributes, for each Occurrence, are placed according to a formatted template defined by the User.
 - **Occurrence Report from Template** - to generate a file where the Occurrence Attributes are placed according to a formatted template defined by the User.
 - **Occurrence Tree Structure** - to generate a file where the Occurrence Attributes are placed in a hierarchical tree structure of one of the Views available or the base Taxonomy.
- ▶ Configuration panel - you can select and edit parameters in each panel by clicking on the corresponding upper tab:
- **Source** - to specify the origin of the Occurrences to be exported.
 - **Configuration** - the parameters to be set for the specific function selected:
 - **Text Files**
 - **Access Database**
 - **Excel Worksheet**
 - **List from Template**
 - **Occurrence Report from Template**
 - **Occurrence Tree Structure**
 - **Destination** - to set the export destination file.
 - **Logging Activity** - to set up logging and its options.
- ▶ **Execute** button - you click this button to execute the export function specified.

6.6.3. SOURCE TAB-PANEL

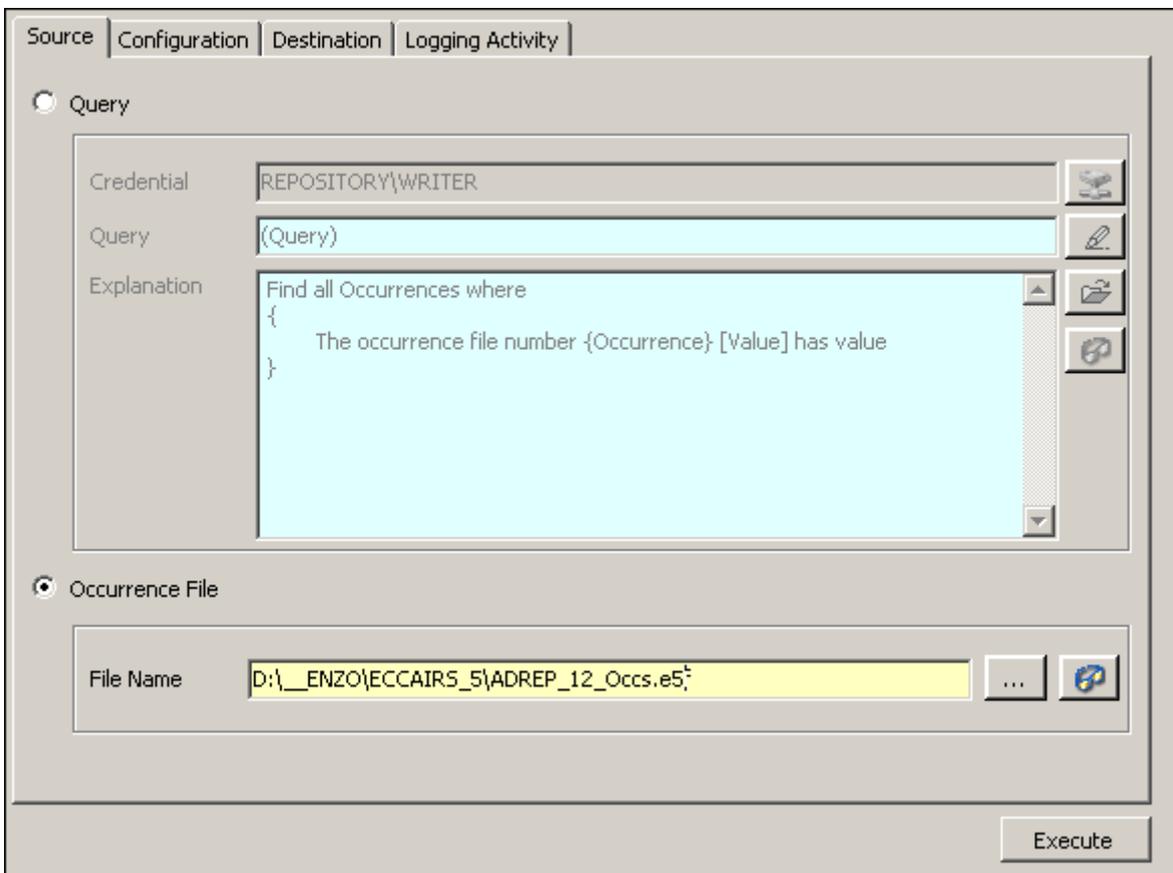
The "Source" tab-panel let you specify the Occurrences to be exported and, for Text, Excel and Access export function, also which Attributes to export.

The source Occurrences are specified:

- ▶ **by a Query in the database** - for the "Text File", "Excel Worksheet" and "Access Database" export functions.



- ▶ **by an Occurrence file or by a Query in the database** - for the "List from Template", "Occurrence Report from Template", "Occurrence Tree Structure" export functions.



6.6.3.1. QUERY SECTION

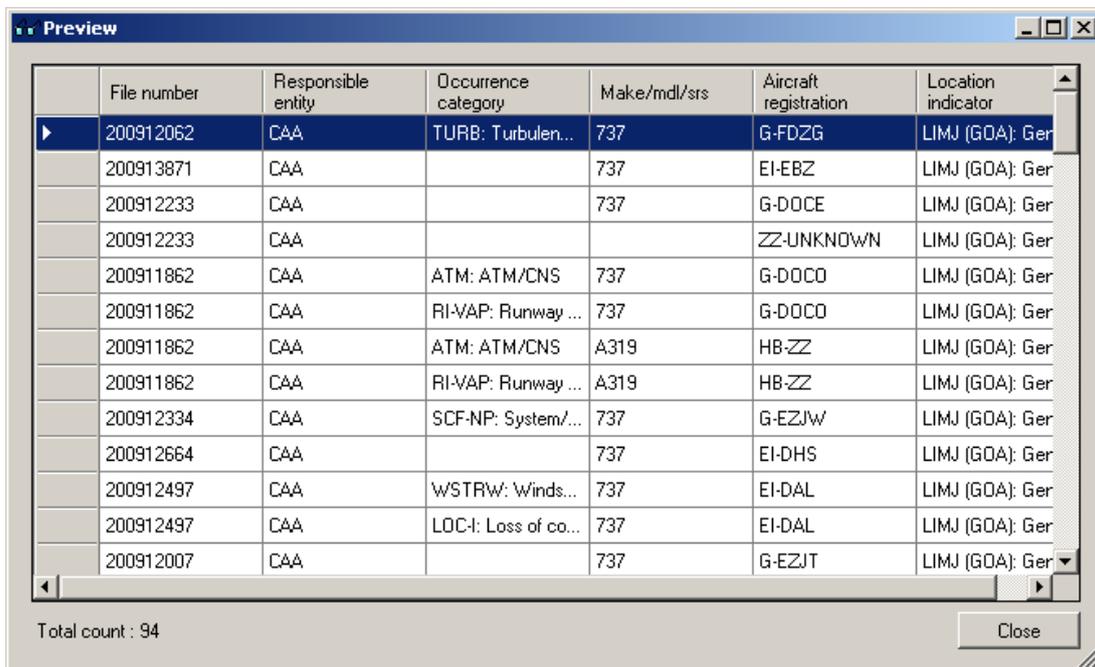
In the Query panel you specify the Query that will extract the specified Attributes of the Occurrences to be exported.

Panel items:

- ▶ **Credentials** - if you click the "connection" icon-button the system shows up the ECCAIRS "Login" dialog where you can logon to the Repository and with the User credentials you wish.
- ▶ **Query** - the field shows either the name of the Query currently in use, if taken from a Query Library, of the generic text "(Query)" if the Query has been defined standalone on the spot (see below).

The icon-buttons on the right let you:

-  **Edit the Query** - if you click the "pencil" icon-button the system displays, according to the export function selected, either the "Query Editing" window ([see page 281](#)) or the "Query and Selections Editing" window ([see page 281](#)) that allows to:
 - Edit locally a Query already opened from a Query Library without the need to edit or define Queries using the Query Builder
 - Create and edit standalone Queries, i.e. not stored in a Query Library.
-  **Open a Query Library** - if you click the "open" icon-button the system starts the ECCAIRS Query Builder application that, in the usual way, allows you access and define Query Libraries and Queries ([see page 257](#)).
-  **Preview the Query result** - if you click the "glasses" icon-button the system shows a "Preview" dialog.



File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
200912062	CAA	TURB: Turbulen...	737	G-FDZG	LIMJ (GOA): Ger
200913871	CAA		737	EI-EBZ	LIMJ (GOA): Ger
200912233	CAA		737	G-DOCE	LIMJ (GOA): Ger
200912233	CAA			ZZ-UNKNOWN	LIMJ (GOA): Ger
200911862	CAA	ATM: ATM/CNS	737	G-DOCO	LIMJ (GOA): Ger
200911862	CAA	RI-VAP: Runway ...	737	G-DOCO	LIMJ (GOA): Ger
200911862	CAA	ATM: ATM/CNS	A319	HB-ZZ	LIMJ (GOA): Ger
200911862	CAA	RI-VAP: Runway ...	A319	HB-ZZ	LIMJ (GOA): Ger
200912334	CAA	SCF-NP: System/...	737	G-EZJW	LIMJ (GOA): Ger
200912664	CAA		737	EI-DHS	LIMJ (GOA): Ger
200912497	CAA	WSTRW: Winds...	737	EI-DAL	LIMJ (GOA): Ger
200912497	CAA	LOC-I: Loss of co...	737	EI-DAL	LIMJ (GOA): Ger
200912007	CAA		737	G-EZJT	LIMJ (GOA): Ger

Total count : 94

The dialog displays the total count of Occurrences matching the Query and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User that you have specified in the "Credentials" field.

Click on the "Close" button to exit the "Preview" dialog.

- ▶ **Explanation** - the explanation of the Query currently in use.

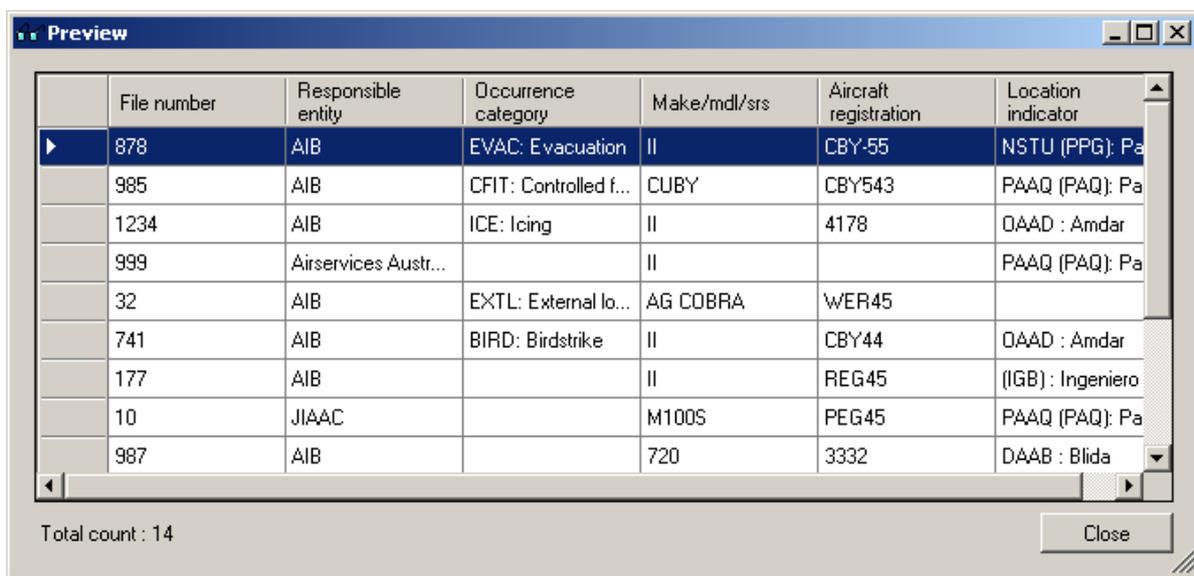
Select the Attributes to Export (where applicable)

If the "Text File", "Excel Worksheet" and "Access Database" export functions you have to specify the Attributes to export using the "Selection" tab in the "Query Editing" window and the "Selection" window to select them ([see page 289](#)).

6.6.3.2. OCCURRENCE FILE SECTION (WHERE APPLICABLE)

Some functions also allow to export Occurrences taken from Occurrence files. If you select this option you have to specify in the "Occurrence File" lower sub-panel:

- ▶ **File Name** - click the "..." button at the right of this field to locate and specify the source Occurrence file name using the standard "Open" dialog.
- ▶ **preview the Query result** - if you click the "glasses" icon-button at the right, the system shows a "Preview" dialog.

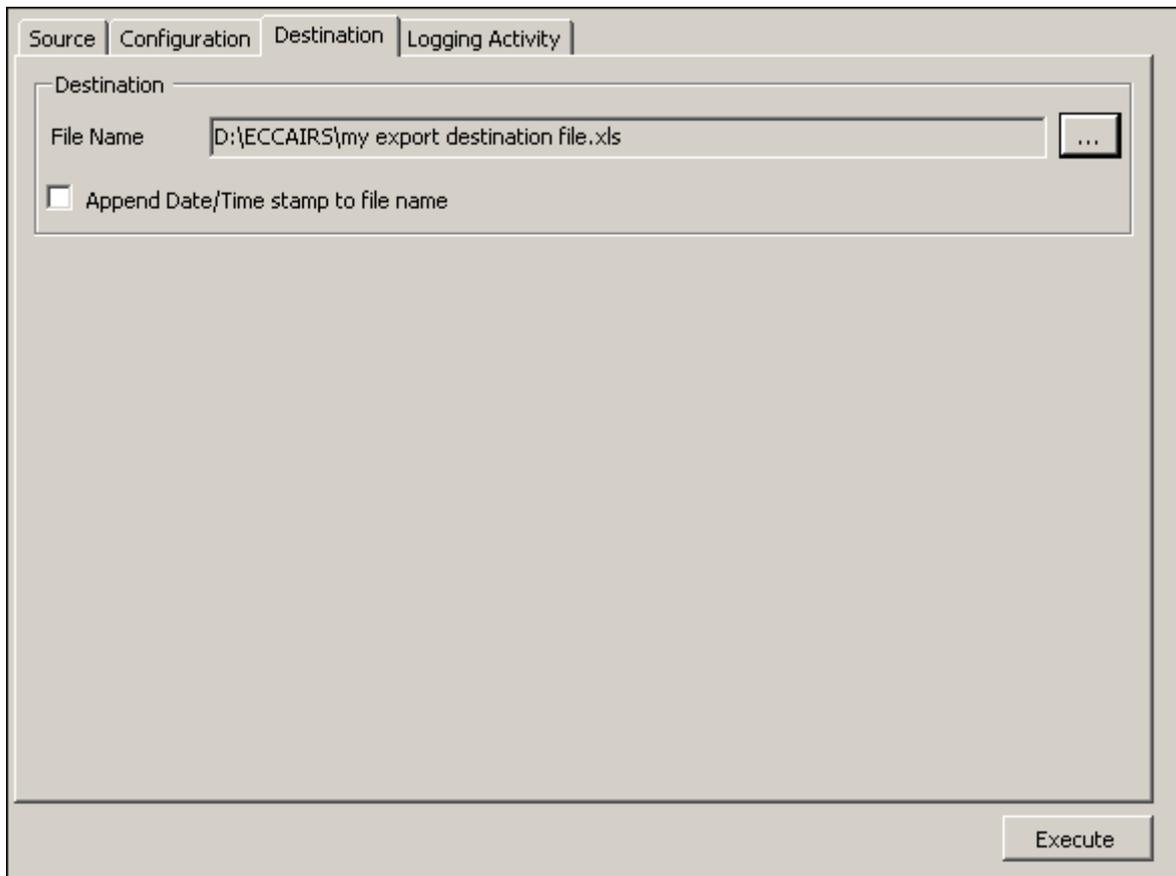


The dialog displays the total count of Occurrences matching the Query and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User that you have specified in the "Credentials" field.

Click the "Close" button to exit the "Preview" dialog.

6.6.4. DESTINATION TAB-PANEL

The "Destination" tab-panel let you specify the export destination file. In case of "Access Database" and "Excel Worksheet" export functions both the "Flat Attribute" format and the "Expanded Attribute" formats are included in the same Access or Excel file.



Panel items:

- ▶ **File Name** - click the "..." button at the right of this field to specify the destination file name and location using the standard "Save" dialog.
The file extension automatically appended to the file name depends on the Tool Function selected for the export: it can be text (*.txt), rich text (*.rtf), html (*.htm), access (*.mdb), excel worksheet (*.xls).
- ▶ **Append Date/Time stamp to file name** - choose this option to append a date and time stamp to the file name. For instance, if you choose "my export file" as file name with an "Excel Worksheet" export function, then the actual export file name after the execution on Sept. 18th 2011 at 13:50 and 23 sec would be:
`my export file_18-09-2010 13-50-23.xls`

Export Text Files: two files to specify

In case of the "Text Files" export function the destination panel let you specify two different files: one for the "Flat Attribute" format and one for the "Expanded Attribute" format ([see page 180](#)).

The screenshot shows a software interface with four tabs: "Source", "Configuration", "Destination", and "Logging Activity". The "Destination" tab is active. Inside this tab, there is a section titled "Generate Following Text Files".

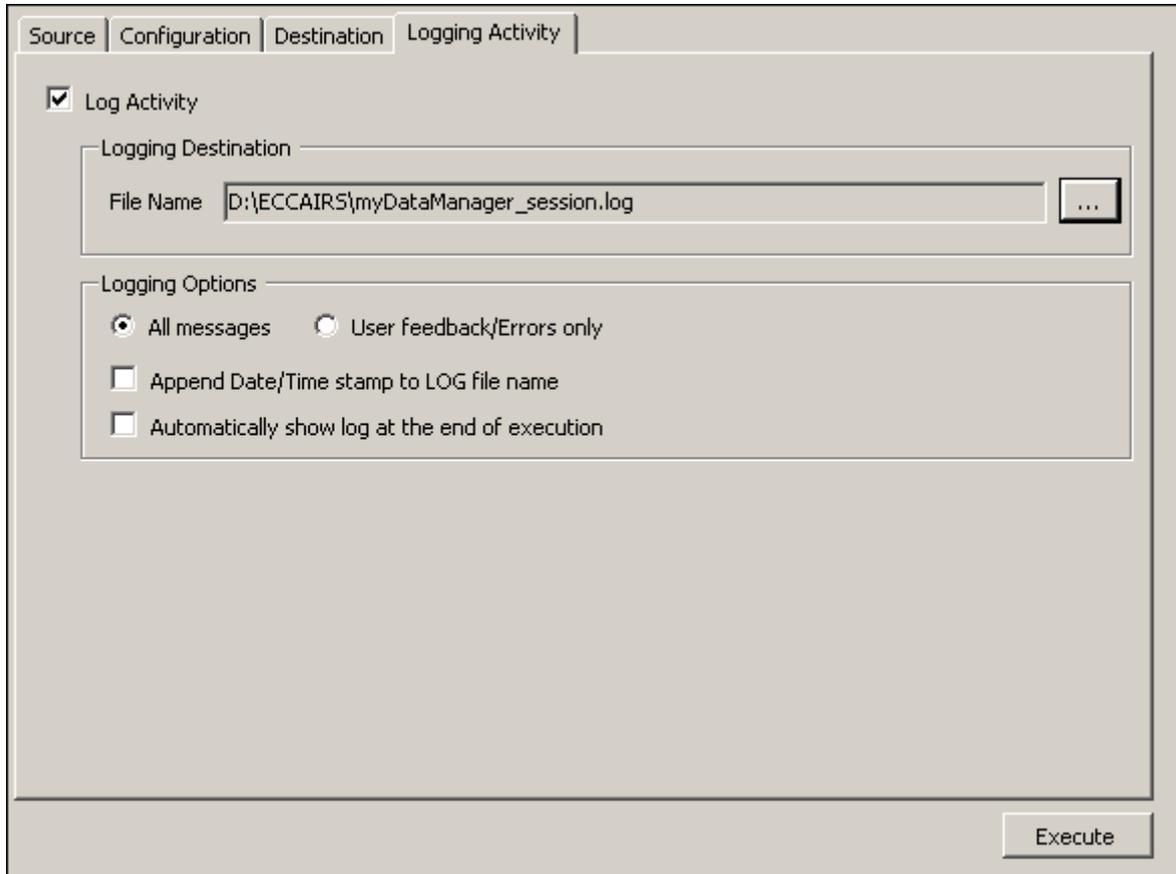
- Flat Text File
 - Destination: [Empty field]
 - File Name: D:\ECCAIRS\export_text_flat.txt [Browse button]
- Expanded Text File
 - Destination: [Empty field]
 - File Name: [Empty field] [Browse button]

Below this section, there is a checkbox: Append Date/Time stamp to file name.

At the bottom right of the dialog, there is an "Execute" button.

6.6.5. LOGGING ACTIVITY TAB-PANEL

The "Logging Activity" tab-panel let you enable/disable logging and specify its options.



You can create a log file every time you execute a Data Manager tool. You cannot append logging to an existing log file. The file will be overwritten on execution. This means that a log file contains log messages for a single Data Manager tool execution.

Panel items:

- ▶ **Log Activity** - choose this option to enable logging.
- ▶ **Logging Destination** section:
 - **File Name** - click the "..." button at the right of this field to specify the log file name and location using the standard "Save" dialog.
- ▶ **Logging Options** section:
 - **All messages / User feedback / Errors only** - specify whether the log file includes all messages or only User feedback and error messages.
 - **Append Date/Time stamp to LOG file name** - select it to append a date and time stamp to the log file name. For instance, if you choose "mylogfile" as file name, then the actual log file name after the execution on Sept. 18th 2011 at 13:50 and 23 sec would be: mylogfile_18-09-2010 13-50-23.log
 - **Automatically show log at the end of executions** - select it to have Data Manager open the log file at the end of the execution.

6.6.6. EXPORT SELECTED ATTRIBUTES AS TEXT FILES

The "Text Files" export function generates a text file containing, for all the Occurrences selected as input in the "Source" tab-panel, the values of a set of Attributes that you specify.

You can choose to generate any or both type of text files:

- ▶ **Flat Attribute Format** - one line per Occurrence with the set of Attributes specified. In some conditions there may be more than one line per Occurrence ([see page 180](#)).
- ▶ **Expanded Attribute Format** - one line per specified Attribute, containing extended information on the Attribute. In some conditions there may be more than one line per Attribute ([see page 180](#)).

You choose the type of text files (Flat, Expanded or both) in the "Destination" tab-panel ([see page 172](#)).

You choose the Attributes to export by specifying Attribute selections in the "Source" tab-panel ([see page 168](#)).

6.6.6.1. EXPORT OCCURRENCES

To export Occurrences as Text Files:

- ▶ Specify the Occurrences to export and which of their Attributes ([see page 168](#)).
- ▶ Specify the export destination files ([see page 171](#)).
- ▶ Set the configuration in the "Configuration" tab-panel ([see page 175](#)).
- ▶ Execute the tool by clicking the **Execute** button. The tool displays a progress bar on the left of the button.
- ▶ Once the export has been performed the system shows a dialog to ask you whether you want to open the file exported.
- ▶ Examine the log file, if needed.

6.6.6.2. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you specify the exporting options.

The screenshot shows the Configuration tab-panel with the following settings:

- Delimiter: Tab (selected)
- Text Qualifier: "
- Value type: Only Value
- Include column name in the first row:

Panel items:

- ▶ **Choose the delimiter to separate your fields** - you can specify the separator to put between Attribute values by selecting one of the radio buttons: Tab / Semicolon / Comma / Space / Other. in this latter case you have to enter in the field the separator character you wish to use.
- ▶ **Text Qualifier** - you can select from the drop-down list the character to be used to "wrap" texts: double-quotes ("), quotes (') or none.
- ▶ **Value Type** - you can select from the drop-down list the Value information to export among:
 - Only Value - exports only the Value.
 - Only Description - exports only the Value textual description.
 - Value and Description - exports the Value and its textual description.
 - Value or Description - exports either the Value, if this is meaningful by itself (e.g. the number of casualties) or, viceversa, its textual description.
 - Mixed Mode - exports either the Value alone, if this is meaningful by itself, or, viceversa, both the Value and its textual description.
- ▶ **Include column name in the first row** - choose this option to put as first line in the export file a row with the names of the Attributes whose values are exported in the subsequent lines. The Attribute names are separated with same separator chosen for the Attribute values.

6.6.7. EXPORT SELECTED ATTRIBUTES TO ACCESS

The Access export generates an Access database file (*.mdb) containing, for all the Occurrences selected as input in the "Source" tab-panel, the values of a set of Attributes that you specify.

You can choose to generate any or both type of tables in the database file:

- ▶ **Flat Attribute Format table** - one record per Occurrence with the set of fields containing the values of the Attributes specified.
In some conditions there may be more than one record per Occurrence ([see page 180](#)).
- ▶ **Expanded Attribute Format table** - one record per Attribute, of those specified, with fields hosting extended information on the Attribute.
In some conditions there may be more than one record per Attribute ([see page 180](#)).

You choose the type of tables to export (Flat, Expanded or both) in the "Configuration" tab-panel ([see below](#)).

You choose the Attributes to export by specifying Attribute selections in the "Source" tab-panel ([see page 168](#)).

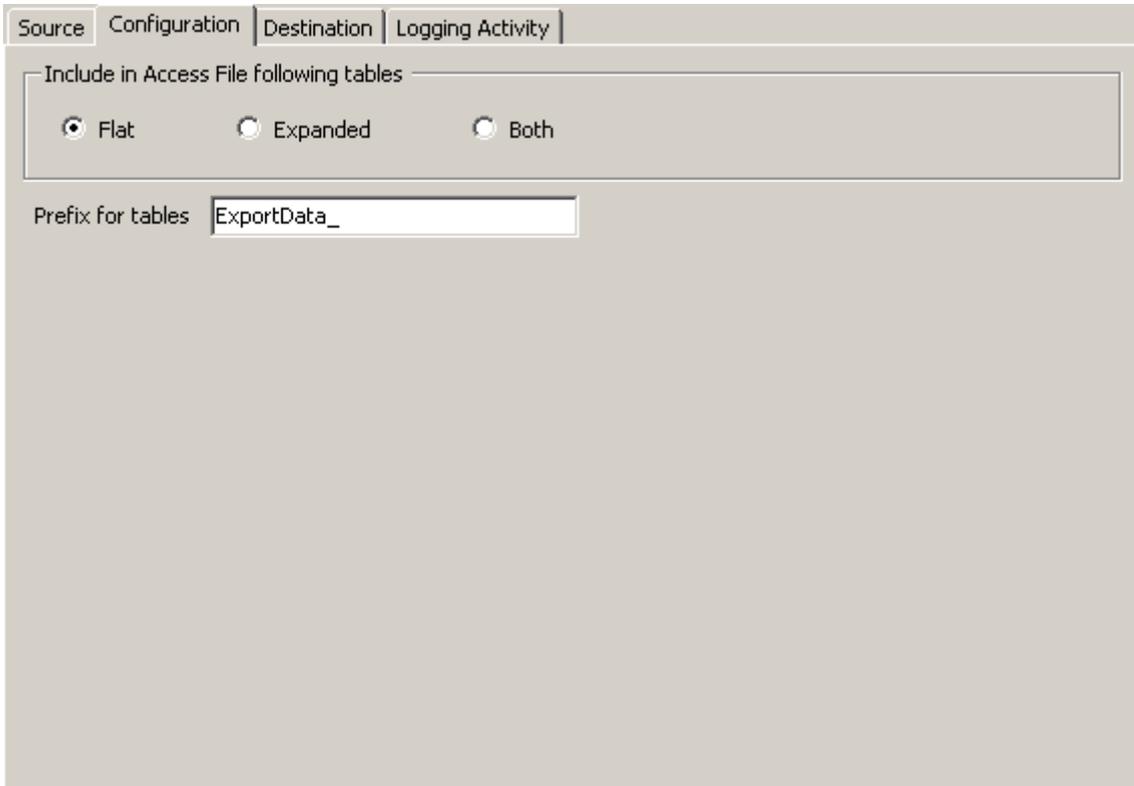
6.6.7.1. EXPORT OCCURRENCES

To export Occurrences as Access Database:

- ▶ Specify the Occurrences to export and which of their Attributes ([see page 168](#)).
- ▶ Specify the export destination files ([see page 171](#)).
- ▶ Set the configuration in the "Configuration" tab-panel ([see page 177](#)).
- ▶ Execute the tool by clicking the "**Execute**" button. The tool displays a progress bar on the left of the button.
- ▶ Once the export has been performed the system shows a dialog to ask you whether you want to open the file exported.
- ▶ Examine the log file, if needed.

6.6.7.2. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you have to specify the exporting options.



The screenshot shows a software interface with four tabs: "Source", "Configuration", "Destination", and "Logging Activity". The "Configuration" tab is active. It contains a section titled "Include in Access File following tables" with three radio buttons: "Flat" (selected), "Expanded", and "Both". Below this is a text input field labeled "Prefix for tables" with the text "ExportData_" entered.

Panel items:

- ▶ **Include in the Access file the following tables** - use the radio buttons to select the type of tables to export : Flat, Expanded or both ([see page 171](#)).
- ▶ **Prefix for tables** - specify the prefix that will be put to the table names in Access.

6.6.8. EXPORT SELECTED ATTRIBUTES TO EXCEL

The Excel export generates an Excel workbook (*.xls) containing, for all the Occurrences selected as input in the "Source" tab-panel, the values of a set of Attributes that you specify.

You can choose to generate any or both type of worksheet in the workbook file:

- ▶ **Flat Attribute Format worksheet** - one row per Occurrence with the columns containing the values of the Attributes specified.
In some conditions there may be more than one row per Occurrence ([see page 180](#)).
- ▶ **Expanded Attribute Format worksheet** - one row per Attribute, of those specified, with columns hosting extended information on the Attribute.
In some conditions there may be more than one row per Attribute ([see page 180](#)).

You choose the type of worksheet to generate (Flat, Expanded or both) in the "Configuration" tab-panel ([see page 179](#)).

You choose the Attributes to export by specifying Attribute selections in the "Source" tab-panel ([see page 168](#)).

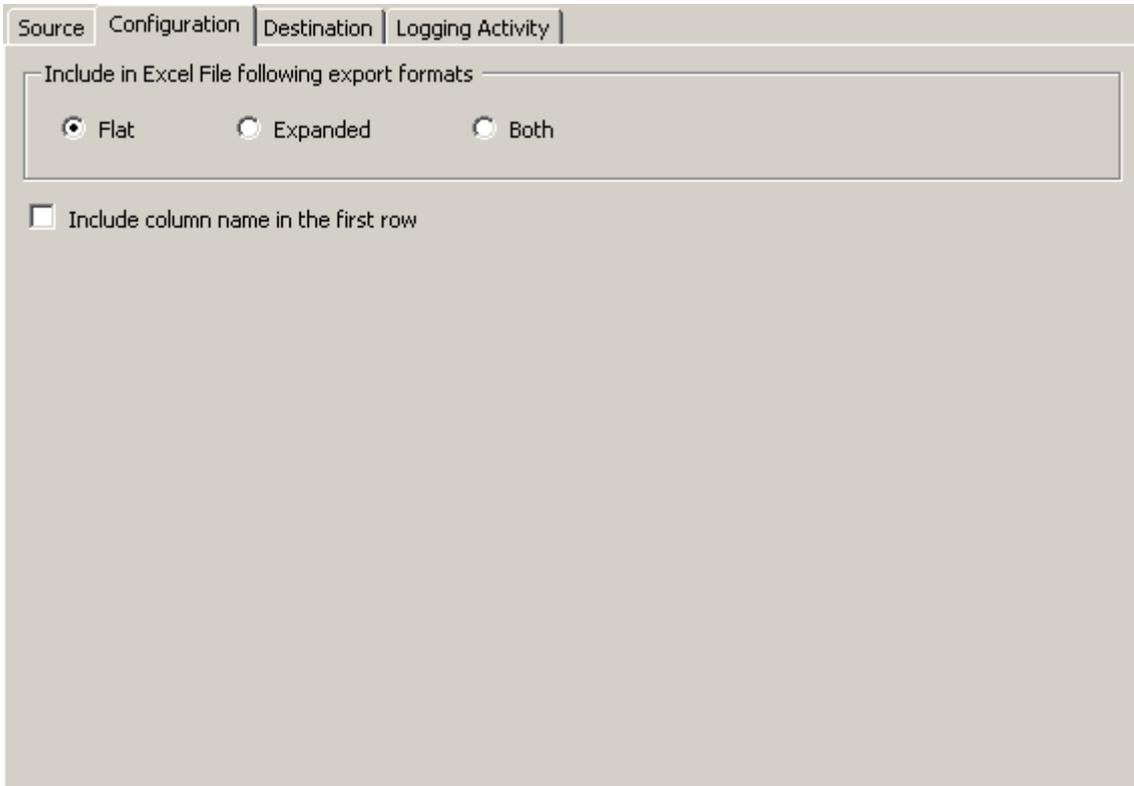
6.6.8.1. EXPORT OCCURRENCES

To export Occurrences as Excel Worksheet:

- ▶ Specify the Occurrences to export and which of their Attributes ([see page 168](#)).
- ▶ Specify the export destination files ([see page 171](#)).
- ▶ Set the configuration in the "Configuration" tab-panel ([see page 179](#)).
- ▶ Execute the tool by clicking the "**Execute**" button. The tool displays a progress bar on the left of the button.
- ▶ Once the export has been performed the system shows a dialog to ask you whether you want to open the file exported.
- ▶ Examine the log file, if needed.

6.6.8.2. CONFIGURATION TAB-PANEL

You have to specify the exporting options in the "Configuration" tab-panel.



The screenshot shows a software interface with four tabs: "Source", "Configuration", "Destination", and "Logging Activity". The "Configuration" tab is active. It contains a section titled "Include in Excel File following export formats" with three radio buttons: "Flat" (selected), "Expanded", and "Both". Below this is a checkbox labeled "Include column name in the first row" which is currently unchecked.

Panel items:

- ▶ **Include in the Excel file the following export formats** - use the radio buttons to select the format type: Flat, Expanded or both ([see page 180](#)).
- ▶ **Include column name in the first row** - choose this option to put in the first row the names of the Attributes whose values are exported in the subsequent rows.

6.6.9. ATTRIBUTE EXPORT FORMATS

You can export the Attributes in two formats:

- ▶ **Flat Attribute Format** - one line/row/record per Occurrence with the set of Attributes specified. In some conditions there may be more than one line per Occurrence.
- ▶ **Expanded Attribute Format** - one line/row/record per specified Attribute, containing extended information on the Attribute. In some conditions there may be more than one line per Attribute.

6.6.9.1. FLAT ATTRIBUTE FORMAT

Each row include the data related to each Occurrence exported.

There might be more than one row of data for each Attribute exported. For instance, in the Air Safety domain, when exporting the aircraft model there will be two rows if there are two aircrafts involved in the Occurrence.

Its first three columns contain:

- ▶ **KEY** - Occurrence signature, a code uniquely identifying an Occurrence in the ECCAIRS Reporting System.
- ▶ **ECCAIRS Number** - the identifier for an Occurrence assigned by the for the responsible Entity.
- ▶ **Responsible Entity** - the code for a the responsible Entity who entered the ECCAIRS Number, according to the Taxonomy in use in the Repository.

There are two other columns for Attribute selected:

- ▶ **Attribute Value** - the value or code of the Attribute as stored in the Occurrence.
- ▶ **Attribute Value Description** - the expanded readable version of the Attribute value, according to the Taxonomy in use in the Repository.

6.6.9.2. EXPANDED ATTRIBUTE FORMAT

Each row will include data related to each Attribute to be exported.

There might be more than one row of data for each Attribute exported.

In particular if the Attribute has a multi-level Value List then there will be a line for each level.

Also, if an Occurrence contains more than one instances of the Attribute, each belonging to a separate Entity instance, then there will be a line for the same Attribute for each Entity instance. For instance, in the Air Safety domain, if there are two aircrafts involved in the Occurrence on exporting the "Year Built" Attribute two lines will be generated.

Its first three columns contain:

- ▶ **KEY** - Occurrence signature, a code uniquely identifying an Occurrence in the ECCAIRS Reporting System.
- ▶ **ECCAIRS Number** - the identifier for an Occurrence assigned by the for the responsible Entity.
- ▶ **Responsible Entity** - the code for the responsible Entity who entered the ECCAIRS Number, according to the Taxonomy in use in the Repository.

There are six other columns which are used to describe each single Attribute on a line:

- ▶ **Attribute ID** - the identifier of the Attribute, according to the Taxonomy in use in the Repository.
- ▶ **Attribute Description** - textual description of the Attribute, according to the Taxonomy in use in the Repository.
- ▶ **Attribute Layout ID** - the identifier of the layout chosen for the Attribute in the "Selection" window that shows up when specifying the Attribute in the "Source" tab-panel.
- ▶ **Attribute Layout Description** - the layout chosen for the Attribute in the "Selection" window that shows up when specifying the Attribute in the "Source" tab-panel.
- ▶ **Attribute Value** - the value of the Attribute as stored in the Repository database.
- ▶ **Attribute Value Description** - the expanded readable version of the Attribute value, according to the Taxonomy in use in the Repository.
- ▶ **Unit** - the measurement unit in which the Attribute value is expressed.

6.6.10. EXPORT OCCURRENCE LIST USING A TEMPLATE

The "List from Template" export function generates a file where a few of the Attributes, for each Occurrence, are placed according to a formatted template defined by the User.

The templates and the exported document can be **Text** files (*.txt), **HTML** files (*.htm) and **Rich Text** files (*.rtf).

Instructions on building and using template files are given in the ECCAIRS White Paper available in the Support area of the ECCAIRS portal:

<http://eccairsportal.jrc.ec.europa.eu>

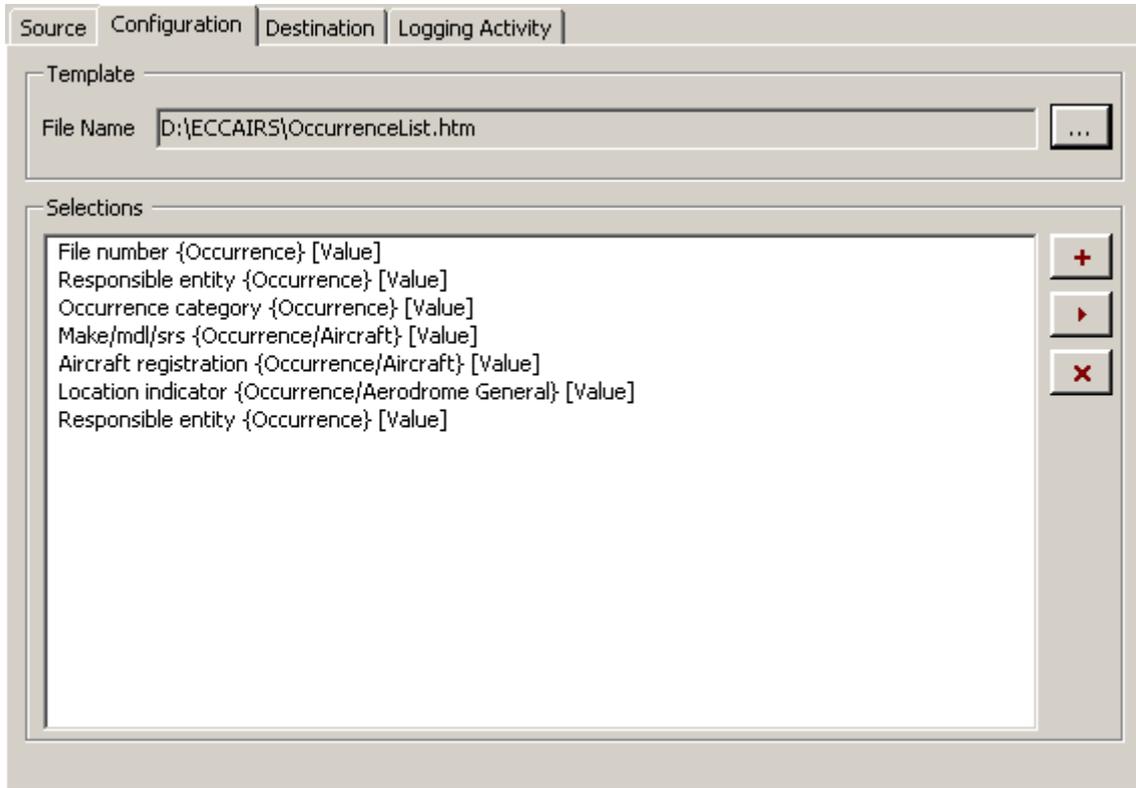
6.6.10.1. EXPORT OCCURRENCES

To export Occurrences:

- ▶ Specify the Occurrences to export ([see page 168](#)).
- ▶ Specify the export destination file ([see page 171](#)).
- ▶ Set the configuration in the "Configuration" tab-panel ([see page 183](#)).
- ▶ Execute the tool by clicking the "**Execute**" button. The tool displays a progress bar on the left of the button.
- ▶ Once the export has been performed the system shows a dialog to ask you whether you want to open the file exported.
- ▶ Examine the log file, if needed ([see page 173](#)).

6.6.10.2. CONFIGURATION TAB-PANEL

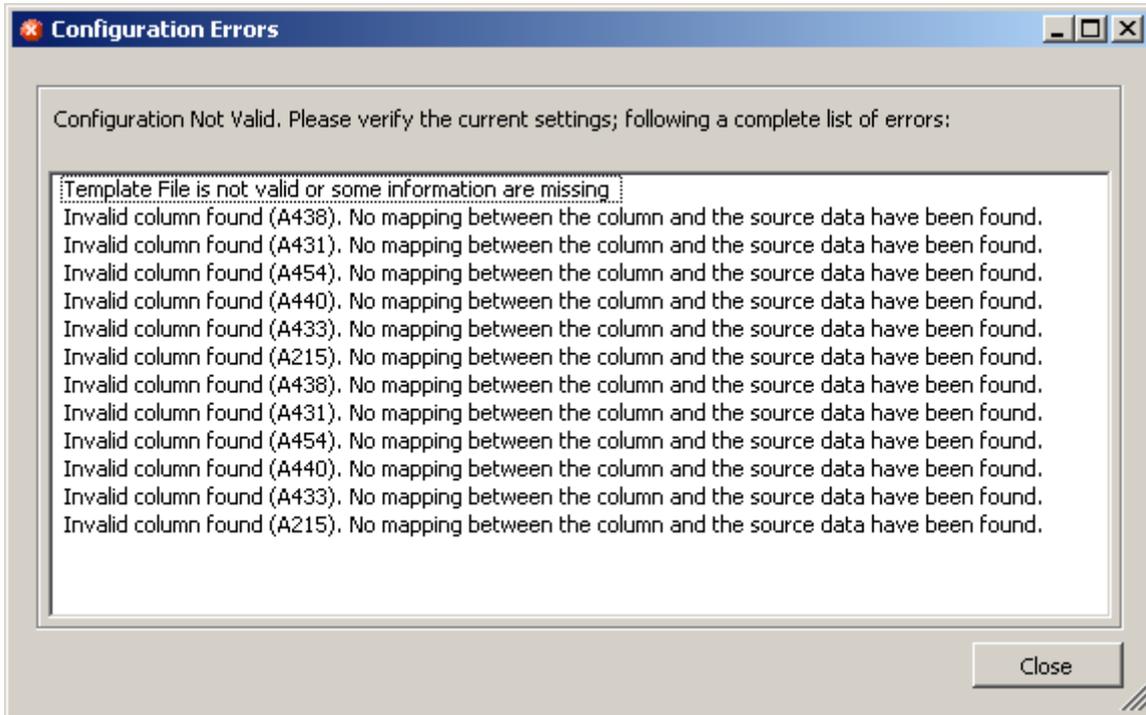
You have to specify the exporting options in the "Configuration" tab-panel.



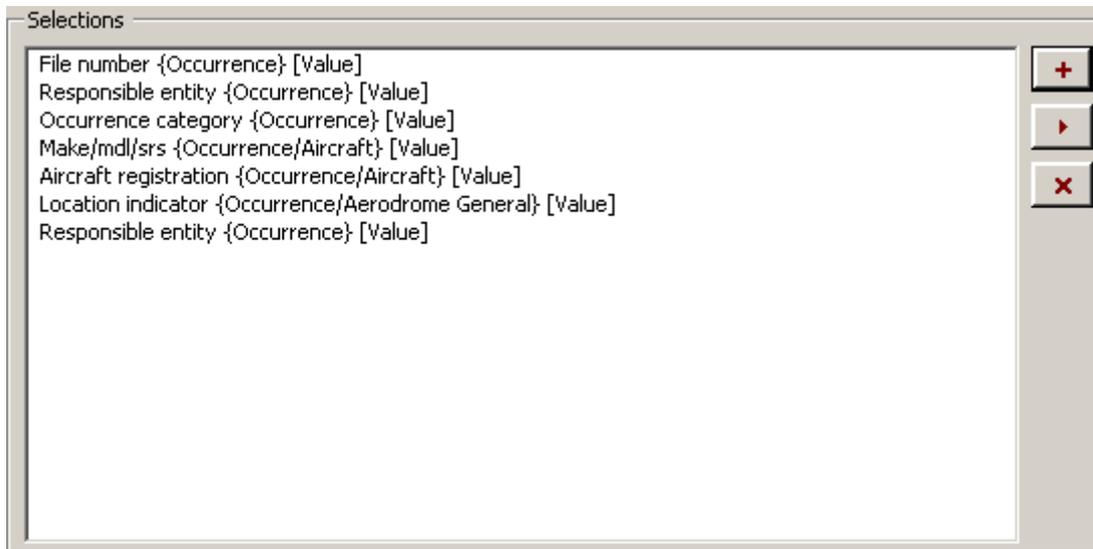
Panel items:

- ▶ **File Name** - click the "... " button at the right of this field to locate and specify the template file name using the standard "Open" dialog.
You can select **Text** files (*.txt), **HTML** files (*.htm) and **Rich Text** files (*.rtf).
- ▶ **Selections** - here you have to specify all the Attributes that will be referenced in the template, both those that will appear in the formatted export and also those not appearing directly in the output but actually used inside the template to express conditions or to build control structures.

If you do not specify all the Attributes needed by the template, when you execute the export you get an "Configuration Errors" dialog showing all the errors detected.



The "Selections" section lists all the Attributes specified so far.



You can use the three right buttons to:

- ▶ **Add Attribute** - add a new Attribute.
You can specify the Attribute in the "Selection Builder" window that shows up ([see page 288](#)).
- ▶ **Edit Attribute** - edit the Attribute currently selected.
You can edit the Attribute specification in the "Selection Builder" window that shows up ([see page 288](#)).
- ▶ **Remove Attribute** - remove the Attribute currently selected.

6.6.11. EXPORT OCCURRENCES USING A TEMPLATE

The export using a template generates a single output file where the Attributes of the Occurrence are placed according to a formatted template defined by the User.

The templates and the exported document can be **Text** files (*.txt), **HTML** files (*.htm) and **Rich Text** files (*.rtf).

Instructions on building and using template files are given in the ECCAIRS White Paper available in the Support area of the ECCAIRS portal:

<http://eccairsportal.jrc.ec.europa.eu>

As in the text-tree export format case, the (coded) database values of the Attributes are not exported.

6.6.11.1. EXPORT OCCURRENCES

To export Occurrences:

- ▶ Specify the Occurrences to export ([see page 168](#)).
- ▶ Specify the export destination file ([see page 171](#)).
- ▶ Set the configuration in the "Configuration" tab-panel ([see page 186](#)).
- ▶ Execute the tool by clicking the "**Execute**" button. The tool displays a progress bar on the left of the button.
- ▶ Once the export has been performed the system shows a dialog to ask you whether you want to open the file exported.
- ▶ Examine the log file, if needed ([see page 173](#)).

6.6.11.2. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you have to specify the exporting options in.



Panel items:

- ▶ **File Name** - click the "..." button at the right of this field to locate and specify the template file name using the standard "Open" dialog. You can select **Text** files (*.txt), **HTML** files (*.htm) and **Rich Text** files (*.rtf).

6.6.12. EXPORT OCCURRENCES AS TEXT-TREE

The text-tree export format generates a single output file where the Attribute Values of the Occurrence are placed in a hierarchical tree structure defined by specific view chosen in textual form. The (coded) database values of the Attributes are not exported.

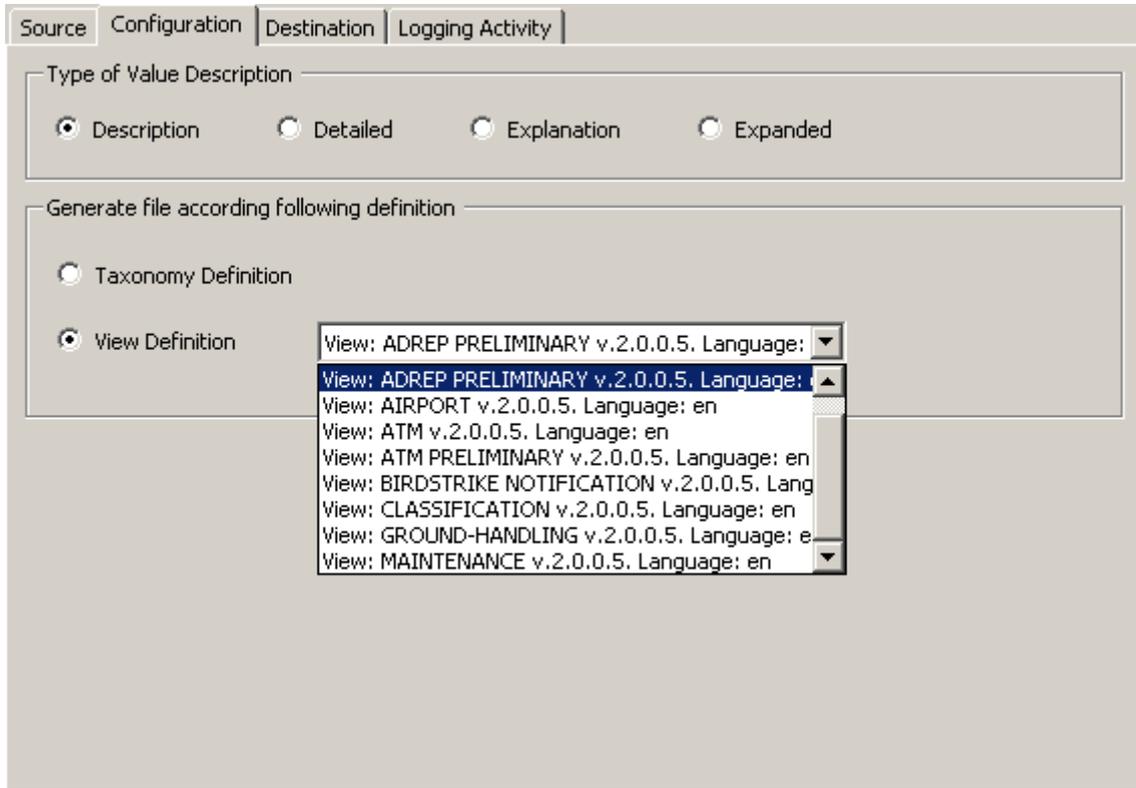
6.6.12.1. EXPORT OCCURRENCES

To export Occurrences as Text-Tree:

- ▶ Specify the Occurrences to export ([see page 168](#)).
- ▶ Specify the export destination file ([see page 171](#)).
- ▶ Set the configuration in the "Configuration" tab-panel ([see next section](#)).
- ▶ Execute the tool by clicking the "**Execute**" button. The tool displays a progress bar on the left of the button.
- ▶ Once the export has been performed the system shows a dialog to ask you whether you want to open the file exported.
- ▶ Examine the log file, if needed ([see page 173](#)).

6.6.12.2. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you have to specify the exporting options in.



Panel items:

- ▶ **Type of Value Description** - you can choose the type of description to use among: Description / Detailed / Explanation / Expanded.
These are the Attribute Values type of descriptions defined in the Taxonomy in use in the Repository specified in the Repository/User credentials used.
- ▶ **Generate File According the Following Definition** section:
 - **Taxonomy Definition** - choose this option to use the Repository Taxonomy as tree-structure to attach the Entities and Attributes to export.
 - **View Definition** - select the View whose tree-structure to use the Repository Taxonomy as tree-structure to attach the Entities and Attributes to export. The Views are those available for the Repository/User credentials used.

6.7. DATA EXCHANGER TOOLS

6.7.1. THE FOUR DATA EXCHANGER FUNCTIONS

This tool includes four separate functions:

- ▶ **Load from Occurrence file** ([see page 191](#)).
- ▶ **Save to Occurrence file** ([see page 197](#)).
- ▶ **Copy Between Repositories** ([see page 202](#)).
- ▶ **Purge Repository** ([see page 207](#)).

6.7.2. LOGGING ACTIVITY TAB-PANEL

The "Logging Activity" tab-panel let you enable/disable logging and specify its options.

You can create a log file every time you execute the tool. You cannot append logging to an existing log file. The file will be overwritten on execution.

This means that a log file contains log messages for every single Data Manager tool execution.

Source | Configuration | Destination | Logging Activity

Log Activity

Logging Destination

File Name ...

Logging Options

All messages User feedback/Errors only

Append Date/Time stamp to LOG file name Extended Activities

Automatically show log at the end of execution Summary Activities

Panel items:

- ▶ **Log Activity** - choose this option to enable logging.
- ▶ **Logging Destination** section:
 - **File Name** - click the "..." button at the right of this field to specify the log file name and location using the standard "Save" dialog.
- ▶ **Logging Options** section:
 - **All messages / User feedback/Errors only** - use the radio-button to specify whether the log file includes all messages or only User feedback and error messages.
 - **Append Date/Time stamp to LOG file name** - choose this option to append a date and time stamp to the log file name. For instance, if you choose "mylogfile.log" as file name, then the actual log file name after the execution on Sept. 18th 2011 at 13:50 and 23 sec would be:
`mylogfile_18-09-2010 13-50-23.log`
 - **Automatically show log at the end of executions** - choose this option to have Data Manager open the log file at the end of the execution.
 - **Extended Activities** - choose this option to generate an extra log file with extended messages on the exporting activities performed. The file is named as the "Logging Destination - File Name" entered before followed by the "_Extended" postfix. For instance, if you choose "mylogfile.log" as file name, the extended log file is named "mylogfile_Extended.log".
 - **Summary Activities** - choose this option to generate an extra log file with summary messages on the exporting activities performed. The file is named as the "Logging Destination - File Name" entered before followed by the "_Summary" postfix. For instance, if you choose "mylogfile.log" as file name, the extended log file is named "mylogfile_Summary.log".

6.8. DATA EXCHANGER - LOAD

This function loads ECCAIRS Occurrence files in a Repository database. Occurrence files can be used to store, exchange and backup occurrences in an Repository.

Typical usage of the "Data Exchanger - Load" function is for restoring the contents of your database from (a series of) Occurrence files.

It is important to know that the "Data Exchanger - Load" function always respects the security settings of the Repository's security profile, so that confidentiality, if applied, is maintained.

Usage of this function is mandatory when you migrate from one version of ECCAIRS to a newer major version of ECCAIRS and the data format and/or Taxonomy has been changed. In this case passing your data via Occurrence files guarantees you that all appropriate conversions and adaptations are performed.

Though it is possible to save and load Occurrences also using the Browser application, in many cases using the "Data Exchange > Save to Occurrence file" and "Data Exchange > Load from Occurrence file" is more efficient, more clear, less likely to generate problems and better documented in the form of extensive logging options.

The general operating sequence to use the "Data Exchanger - Load" function is:

- ▶ Select the Occurrence files to load into the Repository database ([see page 192](#)).
- ▶ Select the target Repository ([see page 196](#)).
- ▶ Define the Load options ([see page 194](#)).
- ▶ Set the Logging options ([see page 189](#)).
- ▶ Execute the tool by clicking the "**Execute**" button. The tool displays a progress bar on the left of the button.
- ▶ Once the task has been performed the system shows a result dialog with the count of the Occurrences processed successfully and those non processed for errors. Click the "**OK**" button to dismiss the dialog.



- ▶ Examine the log file, if needed.

There are four configuration tab-panels:

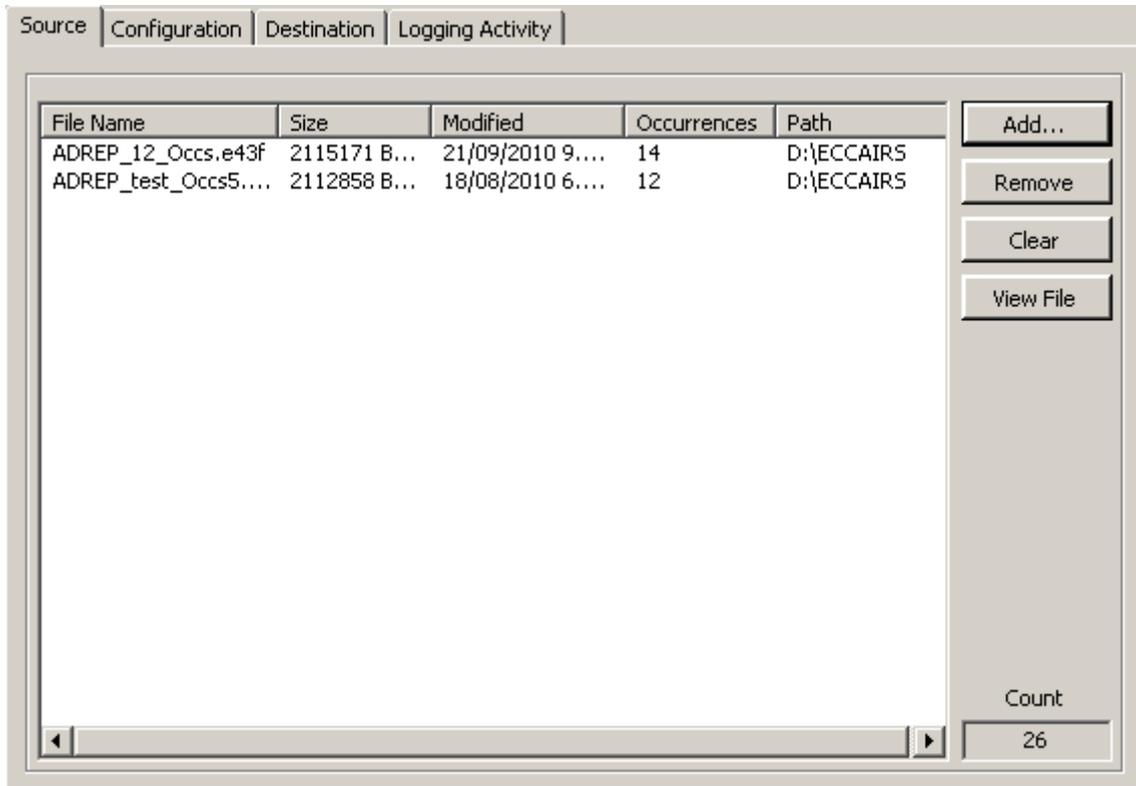
- ▶ **Source** - to specify which Occurrence files to load into the Repository database.
- ▶ **Configuration** - to set the duplication and de-identification options.
- ▶ **Destination** - to set the destination Repository and access credentials.
- ▶ **Logging Activity** - to set up logging and its options. This panel is the same for all the Data Exchange functions ([see page 189](#)).

At the bottom of the window you have:

- ▶ **Execute** button - you click this button to execute the load function.

6.8.1. SOURCE TAB-PANEL

The "Source" tab-panel let you specify the Occurrences to be loaded into the Repository database. You can load Occurrences from several Occurrence files at once.



Panel items:

- ▶ **Load list** - the list of the Occurrence files already selected to be loaded into the Repository database.
For each file the list displays:
 - **File Name** - the name of the Occurrence file.
 - **Size** - the size of the Occurrence file.
 - **Modified** - the last modification date of the Occurrence file.
 - **Occurrences** - the number of Occurrences included in the Occurrence file.
 - **Path** - the file system path to the Occurrence file.
- ▶ **Add** - click this button to add an Occurrence file. Use the standard "Open" dialog to locate the Occurrence file.
- ▶ **Remove** - select an Occurrence file in the list and click on this button to remove the file from the load list.
- ▶ **Clear** - click this button to remove all the Occurrence files from the load list.
- ▶ **View File** - click this button to show a "Preview" dialog.

	File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
▶	200912062	CAA	TURB: Turbulen...	737	G-FDZG	LIMJ (GOA): Ger
	200913871	CAA		737	EI-EBZ	LIMJ (GOA): Ger
	200912233	CAA		737	G-DOCE	LIMJ (GOA): Ger
	200912233	CAA			ZZ-UNKNOWN	LIMJ (GOA): Ger
	200911862	CAA	ATM: ATM/CNS	737	G-DOCO	LIMJ (GOA): Ger
	200911862	CAA	RI-VAP: Runway ...	737	G-DOCO	LIMJ (GOA): Ger
	200911862	CAA	ATM: ATM/CNS	A319	HB-ZZ	LIMJ (GOA): Ger
	200911862	CAA	RI-VAP: Runway ...	A319	HB-ZZ	LIMJ (GOA): Ger
	200912334	CAA	SCF-NP: System/...	737	G-EZJW	LIMJ (GOA): Ger
	200912664	CAA		737	EI-DHS	LIMJ (GOA): Ger
	200912497	CAA	WSTRW: Winds...	737	EI-DAL	LIMJ (GOA): Ger
	200912497	CAA	LOC-I: Loss of co...	737	EI-DAL	LIMJ (GOA): Ger
	200912007	CAA		737	G-EZJT	LIMJ (GOA): Ger

Total count : 94

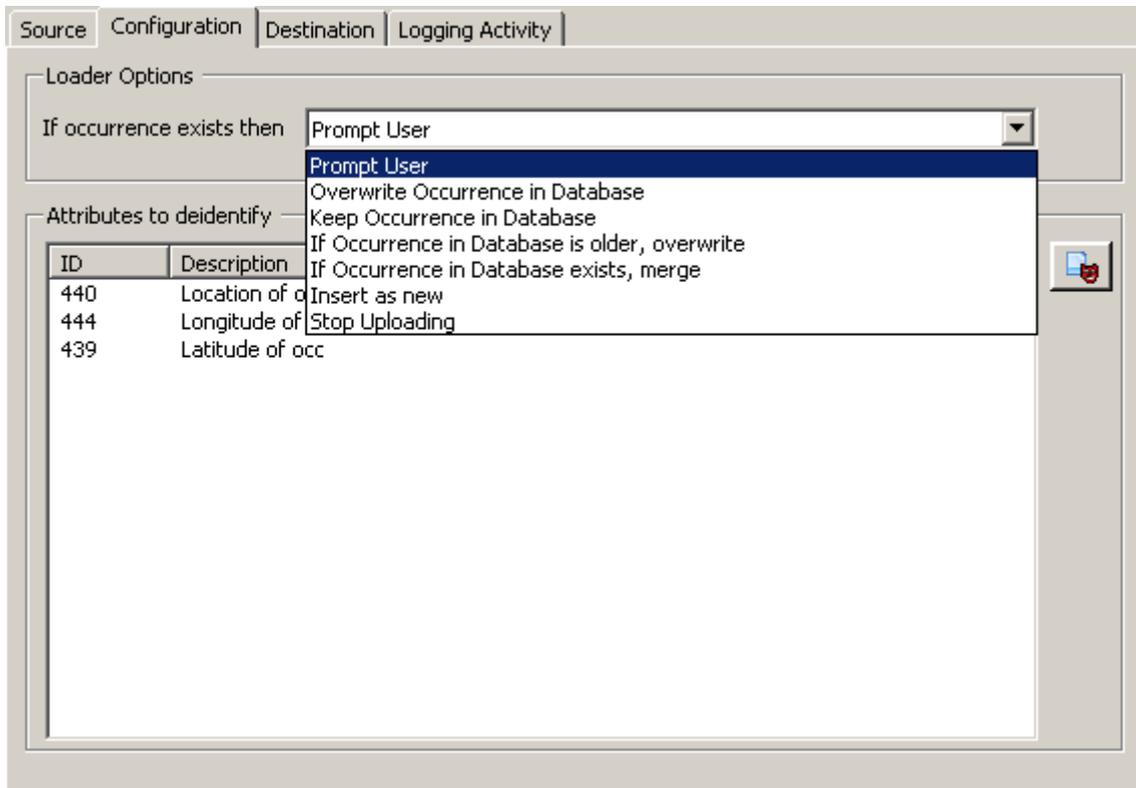
Close

The dialog displays the total count of Occurrences in the file and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User that you have used in the "Credentials" field of the "Destination" tab-panel ([see page 196](#)).

Click the **Close** button to exit the "Preview".

6.8.2. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you have to specify the load options. In particular you can specify any Attributes to de-identify before loading the Occurrences into the Repository database.



Panel items:

► **Loader Options - "If Occurrence exists then"**

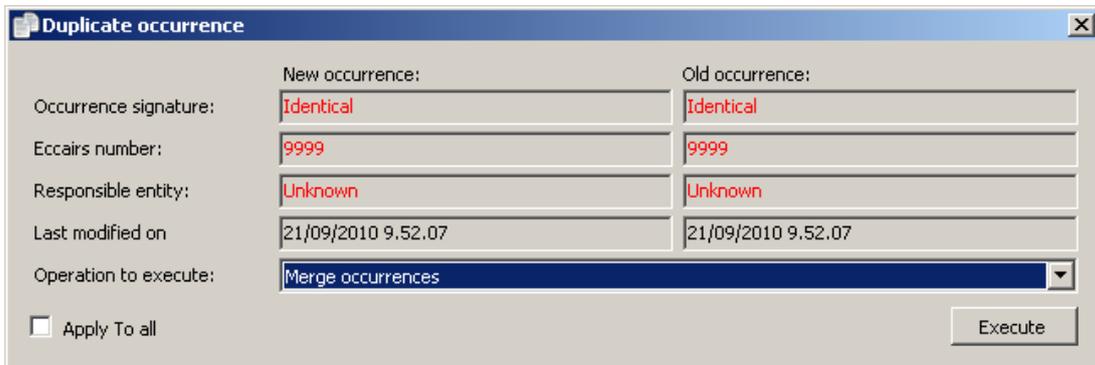
You can set the action that the tool must undertake when a duplicate Occurrence is detected when trying to load it into the database.

The duplication is identified using the criteria which are specified in the Repository for the User/Role specified in the "Destination" tab-panel ([see page 196](#)).

Select one of the options listed in the "If Occurrence exists then" drop-down list:

- **Overwrite Occurrence in database** - the duplicate Occurrence in the database is removed and the new Occurrence from the Occurrence file is inserted.
- **Keep Occurrence in database** - the duplicate Occurrence in the database is retained and the new Occurrence from the Occurrence file is ignored.
- **If Occurrence in database is older, overwrite** - if the Occurrence from the Occurrence file has a more recent date than the Occurrence in the database then replace the duplicate Occurrence in the database by the new Occurrence from the Occurrence file.
- **If Occurrence in database exists, merge** - merge the content of the Occurrence to be loaded into the Occurrence already inside the database. The merge procedure is performed according to the procedure specified in the Repository for the User/Role specified in the "Destination" tab-panel ([see page 196](#)).
- **Insert as new** - insert the Occurrence as new Occurrence in the Repository database. A dialog is displayed, as in the "Prompt User" case, where you have to provide a new unique "ECCAIRS number".

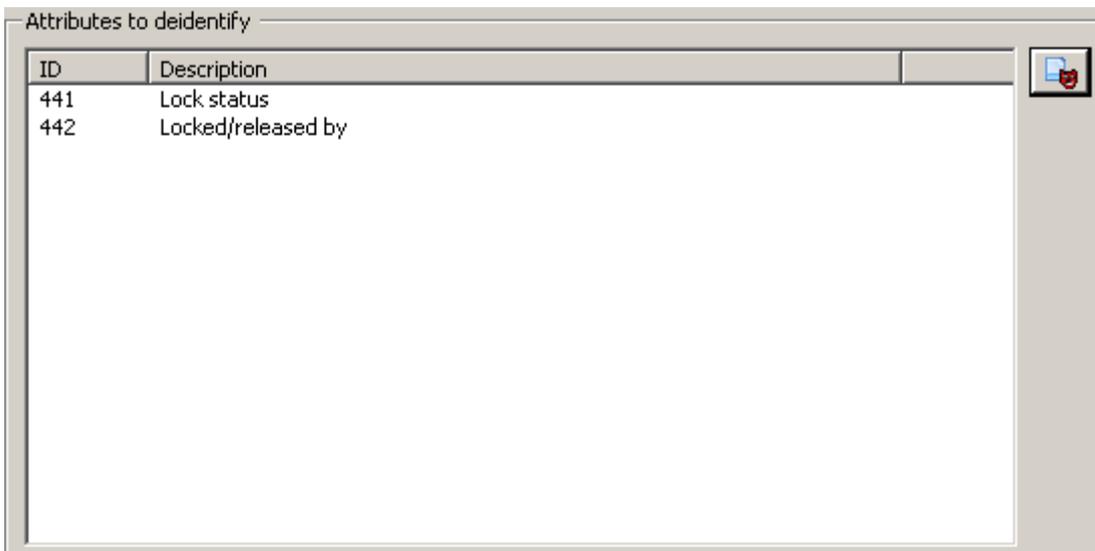
- **Stop uploading** - stop the procedure.
- **Prompt User** - a "Duplicate Occurrence" dialog will appear informing the User about the situation and asking the User how to proceed.



You can choose the action ("Operation to execute:") to perform. The actions are the same as those listed above.

You can choose the "Apply to All" option if you want to apply the same action to all the duplicate Occurrences detected.

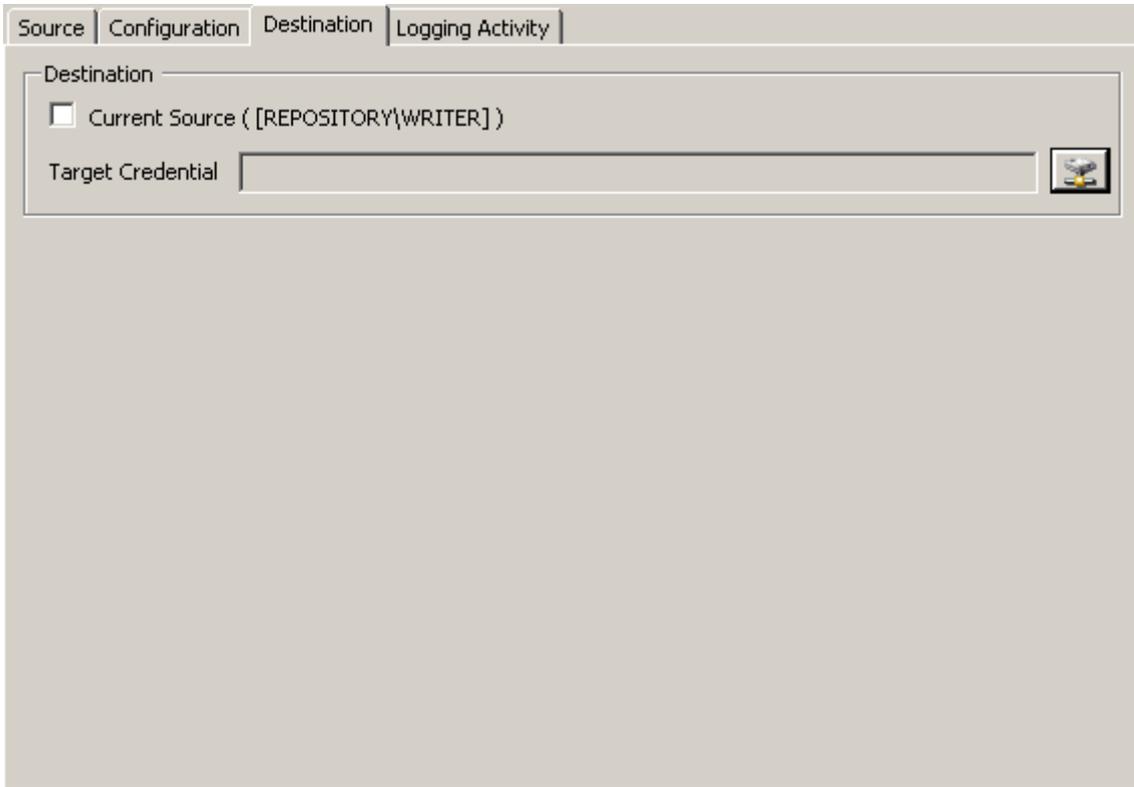
- ▶ **Attributes to deidentify** - if you need to de-identify the Occurrences to be loaded you have to specify which Attributes to de-identify. The panel lists the Attributes already selected for de-identification.



Click the "mask-shaped" icon-button on the right and select the Attributes using the standard multi "Attribute Selection" dialog ([see page 300](#)). Using the dialog you can add or remove Attributes in the de-identification list.

6.8.3. DESTINATION TAB-PANEL

The "Destination tab-panel let you specify the Repository where the Occurrences are to be loaded.



Panel items:

- ▶ **Current Source** - if you choose this option the Occurrences will be loaded into the current Repository and with the current User credentials. This Repository and logon credentials were specified when starting the "Data Manager" application ([see page 19](#)). The current Repository and User are displayed in parentheses at the right of the check-box (e.g. MyRepository\MyUser).
- ▶ **Target Credentials** - if you click the "connection" icon-button the system shows up the ECCAIRS "Login" dialog ([see page 19](#)) where you can login to the Repository you wish with the suitable User credentials.

6.9. DATA EXCHANGER - SAVE

This function saves Occurrence files into a Repository database

Typical use of the "Data Exchange > Save to Occurrence file" and "Data Exchange > Load from Occurrence file" functions are for saving/restoring the contents of your database to/from (a series of) Occurrence files.

It is important to know that this function always respects the security settings of the repository's security profile, so that confidentiality, if applied, is maintained.

Usage of this function is mandatory when you migrate from one version of ECCAIRS to a newer major version of ECCAIRS and the data format and/or Taxonomy has been changed. In this case passing your data via Occurrence files guarantees you that all appropriate conversions and adaptations are performed.

Though it is possible to save and load Occurrences also using the Browser application, in many cases using the "Data Exchange > Save to Occurrence file" and "Data Exchange > Load from Occurrence file" is more efficient, more clear, less likely to generate problems and better documented in the form of extensive logging options.

The general operating sequence to use the "Data Exchanger - Save" function is:

- ▶ Select the Source Repository and set the Query to extract from the database the Occurrences to save ([see page 198](#)).
- ▶ Select the target Occurrence file(s) ([see page 201](#)).
- ▶ Define the Save options ([see page 200](#)).
- ▶ Set the Logging options ([see page 189](#)).
- ▶ Execute the tool by clicking the "**Execute**" button. The tool displays a progress bar on the left of the button.
- ▶ Once the task has been performed the system shows a result dialog with the count of the Occurrences processed successfully and those non processed for errors. Click the "**OK**" button to dismiss the dialog.



- ▶ Examine the log file, if needed.

There are four configuration tab-panels:

- ▶ **Source** - to specify which Occurrence files of the Repository database to save.
- ▶ **Configuration** - to set the de-identification and file-splitting options.
- ▶ **Destination** - to set the destination Occurrence file.
- ▶ **Logging Activity** - to set up logging and its options. This panel is the same for all the Data Exchange functions ([see page 189](#)).

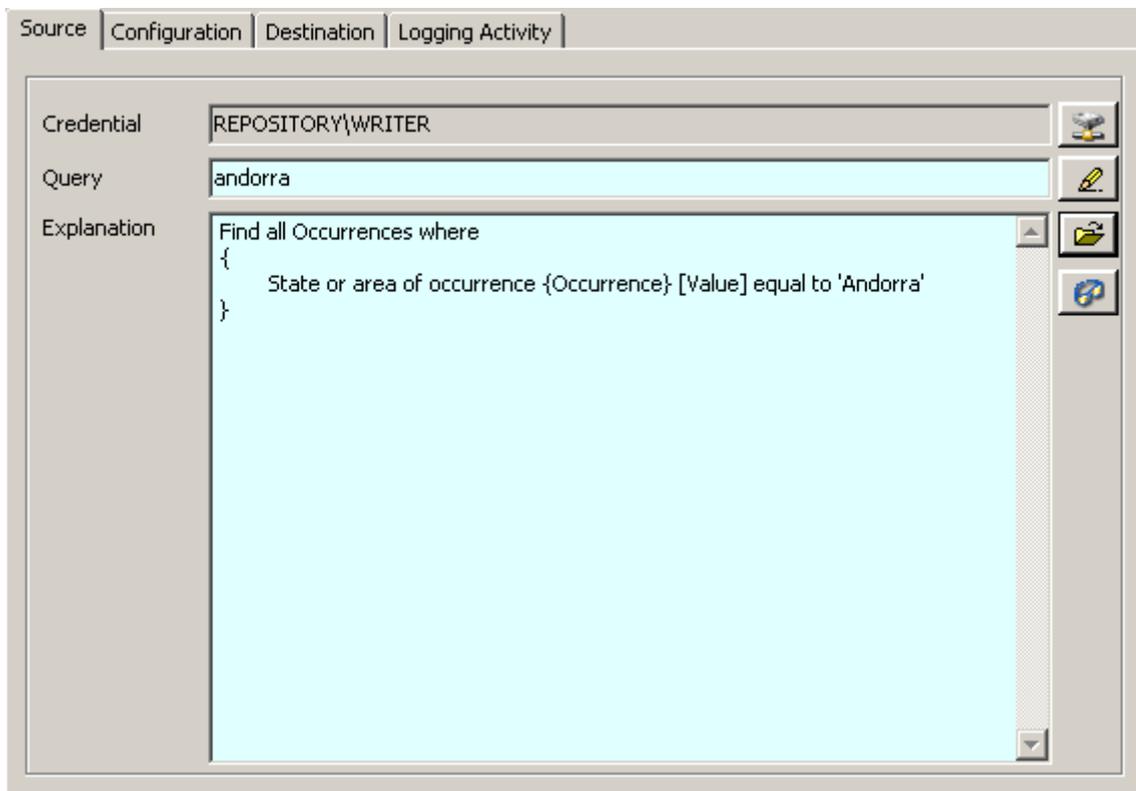
At the bottom of the window you have:

- ▶ **Execute** button - you click this button to execute the load function.

6.9.1. SOURCE TAB-PANEL

The "Source" tab-panel let you specify the Repository database Occurrences to be saved from the into the Occurrence file.

This is done by using a Query on the Repository database.



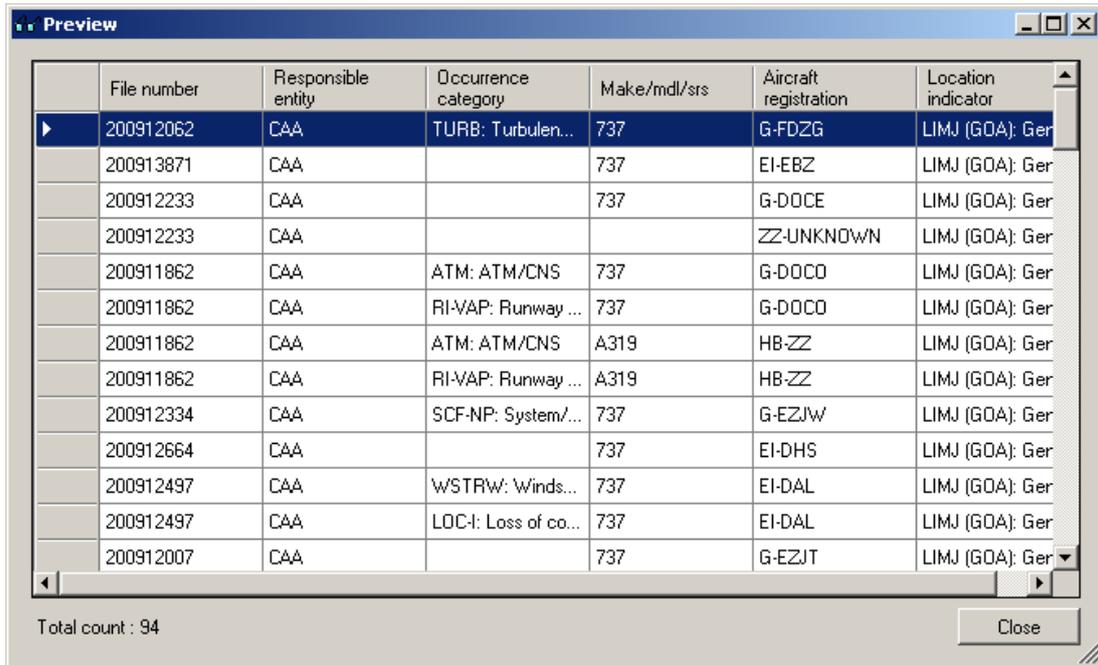
Panel items:

- ▶ **Credentials** - if you click the "connection" icon-button the system shows up the ECCAIRS "Login" dialog where you can login to the Repository you wish with the suitable User.
- ▶ **Query** - the field shows either the name of the Query currently in use, if taken from a Query Library, of the generic text "(Query)" if the Query has been defined standalone on the spot (see below).

The icon-buttons on the right let you:

-  **Edit the Query** - click the "pencil" icon-button to display the "Query Editing" window ([see page 281](#)) that allows to:
 - Edit locally a Query already opened from a Query Library without the need to edit or define Queries using the Query Builder
 - Create and edit standalone Queries, i.e. not stored in a Query Library.
-  **Open a Query Library** - click the "open" icon-button to start the ECCAIRS Query Builder application that let you to access and define Query Libraries and Queries ([see page 257](#)).

-  **Preview the Query result** - click the "glasses" icon-button to display a "Preview" dialog.



The screenshot shows a window titled "Preview" containing a table with the following columns: File number, Responsible entity, Occurrence category, Make/mdl/srs, Aircraft registration, and Location indicator. The table lists 15 rows of data, with the first row highlighted. Below the table, it shows "Total count : 94" and a "Close" button.

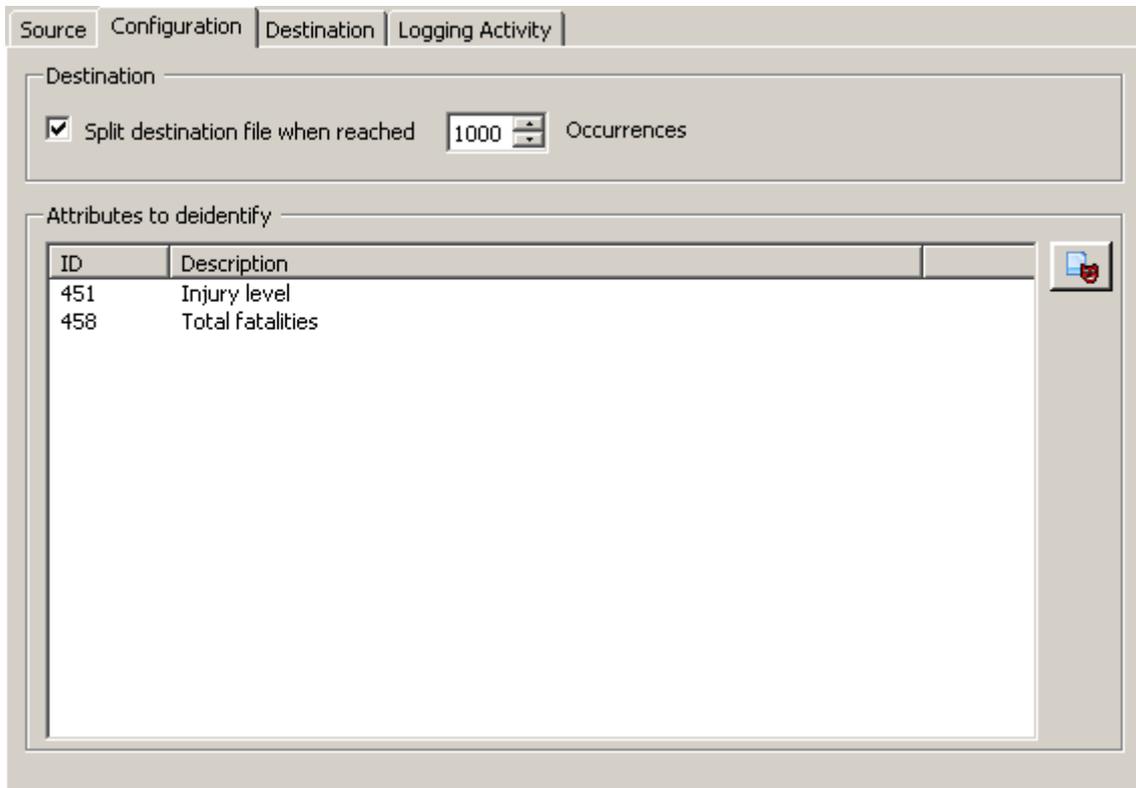
File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
200912062	CAA	TURB: Turbulen...	737	G-FDZG	LIMJ (GOA): Ger
200913871	CAA		737	EI-EBZ	LIMJ (GOA): Ger
200912233	CAA		737	G-DOCE	LIMJ (GOA): Ger
200912233	CAA			ZZ-UNKNOWN	LIMJ (GOA): Ger
200911862	CAA	ATM: ATM/CNS	737	G-DOCO	LIMJ (GOA): Ger
200911862	CAA	RI-VAP: Runway ...	737	G-DOCO	LIMJ (GOA): Ger
200911862	CAA	ATM: ATM/CNS	A319	HB-ZZ	LIMJ (GOA): Ger
200911862	CAA	RI-VAP: Runway ...	A319	HB-ZZ	LIMJ (GOA): Ger
200912334	CAA	SCF-NP: System/...	737	G-EZJW	LIMJ (GOA): Ger
200912664	CAA		737	EI-DHS	LIMJ (GOA): Ger
200912497	CAA	WSTRW: Winds...	737	EI-DAL	LIMJ (GOA): Ger
200912497	CAA	LOC-I: Loss of co...	737	EI-DAL	LIMJ (GOA): Ger
200912007	CAA		737	G-EZJT	LIMJ (GOA): Ger

The dialog that displays the total count of Occurrences matching the Query and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User that you have specified in the "Credentials" field. Click the **Close** button to exit the "Preview" dialog.

- ▶ **Explanation** - the explanation of the Query currently in use.

6.9.2. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you specify the save options. In particular you can specify any Attributes to de-identify before saving the Occurrences into the Occurrence file.

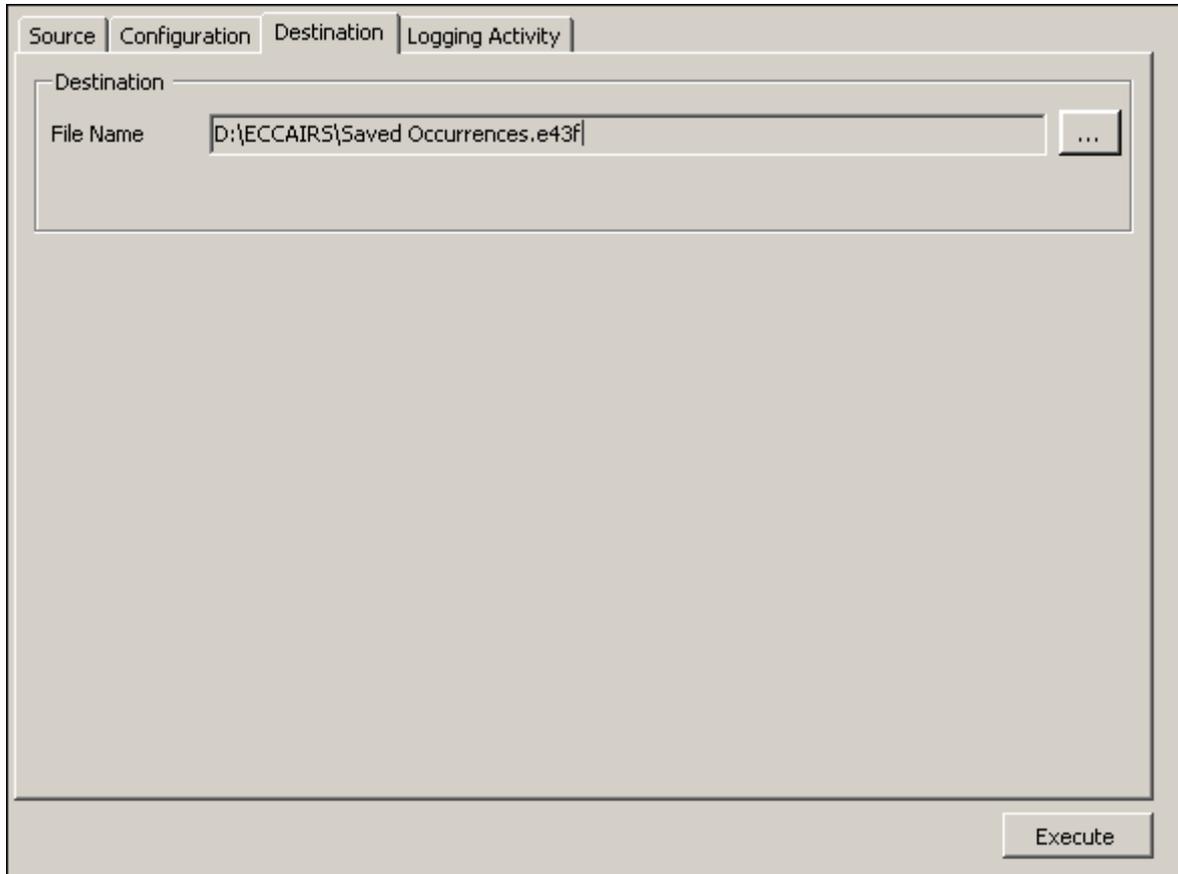


Panel items:

- ▶ **Destination - Split destination file when reached xxx Occurrences** - choose this option to split the Occurrence file into several smaller ones in case it contains more than "xxx" Occurrences.
Set the field at the right of the check-box with the maximum number of Occurrences that can be saved into a single file.
The naming conventions for the splitted files is described in the "Destination" tab-panel ([see page 201](#)).
- ▶ **Attributes to deidentify** - if you need to de-identify the Occurrences to be loaded you have to specify which Attributes to de-identify.
The panel lists the Attributes already selected for de-identification.
Click the "mask-shaped" icon-button on the right and select the Attributes using the standard multi "Attribute Selection" dialog ([see page 300](#)).
Using the dialog you can add or remove Attributes to the de-identification list.

6.9.3. DESTINATION TAB-PANEL

The "Destination tab-panel let you specify the Repository where the Occurrences are to be loaded.



Panel items:

- ▶ **Destination - File Name** - click the "..." button at the right of this field to specify the destination file name and location using the standard "Save" dialog.

If the destination Occurrence file has been split into several smaller ones, because of its size and the option set in the "Configuration" tab-panel, then each file will have the name specified in the "File Name" field above extended with the particular range of occurrences generated.

For example: if the generated file name is LossOfControl.e5f with a total number of occurrences of 1789, and the split threshold is set to 1000, then the system will generate:

- ▶ LossOfControl1-1000.e5f
- ▶ LossOfControl1001-1789.e5f

6. 10. DATA EXCHANGER - COPY BETWEEN REPOSITORIES

The "Data Exchanger - Copy between Repositories" function transfer Occurrences from one Repository database into another one.

We will call this function briefly as "Data Exchanger - Copy".

You can also choose to move Occurrences across Repository databases, rather than copy them.

You could use this tool as an extra safety measure in addition to, but not substituting, the regular database (RDBMS) backups.

It can be used on an ad-hoc basis to make a copy or it can be used when you migrate between two ECCAIRS or database (RDBMS) versions.

The general operating sequence to use the "Data Exchanger - Copy" function is:

- ▶ Select which occurrence to extract from the source Repository database ([see page 203](#)).
- ▶ Select the target Repository ([see page 206](#)).
- ▶ Define the Copy options: de-identification, copy/move and duplicate handling options([see page 204](#)).
- ▶ Set the Logging options ([see page 189](#)).
- ▶ Execute the tool by clicking the "**Execute**" button. The tool displays a progress bar on the left of the button.
- ▶ Once the task has been performed the system shows a result dialog with the count of the Occurrences processed successfully and those non processed for errors. Click the "**OK**" button to dismiss the dialog.



- ▶ Examine the log file, if needed.

There are four configuration tab-panels:

- ▶ **Source** - to specify which Occurrence files of the source Repository database to copy.
- ▶ **Configuration** - to set the de-identification, copy/move and duplicate handling options.
- ▶ **Destination** - to set the destination Repository database.
- ▶ **Logging Activity** - to set up logging and its options. This panel is the same for all the Data Exchange functions ([see page 189](#)).

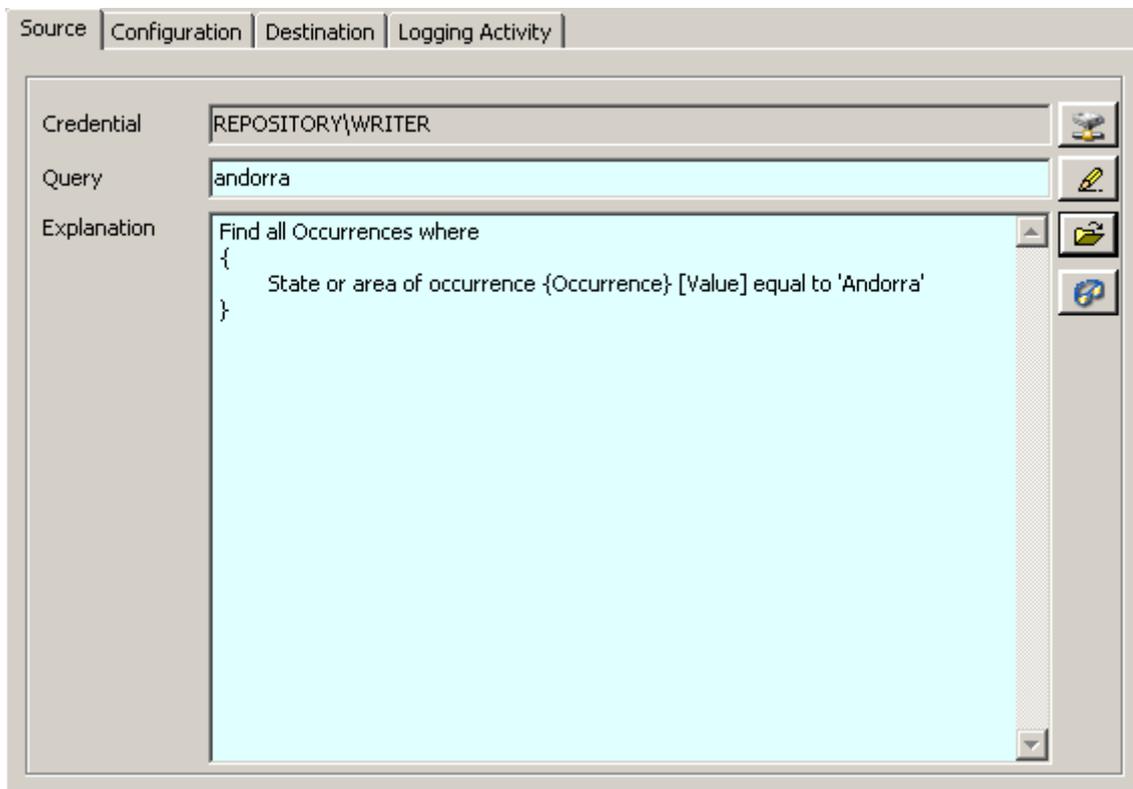
At the bottom of the window you have:

- ▶ **Execute** button - click this button to execute the copy function.

6.10.1. SOURCE TAB-PANEL

The "Source" tab-panel let you specify the source Repository database Occurrences to be saved into the target Repository database.

This is done by using a Query on the source Repository database.

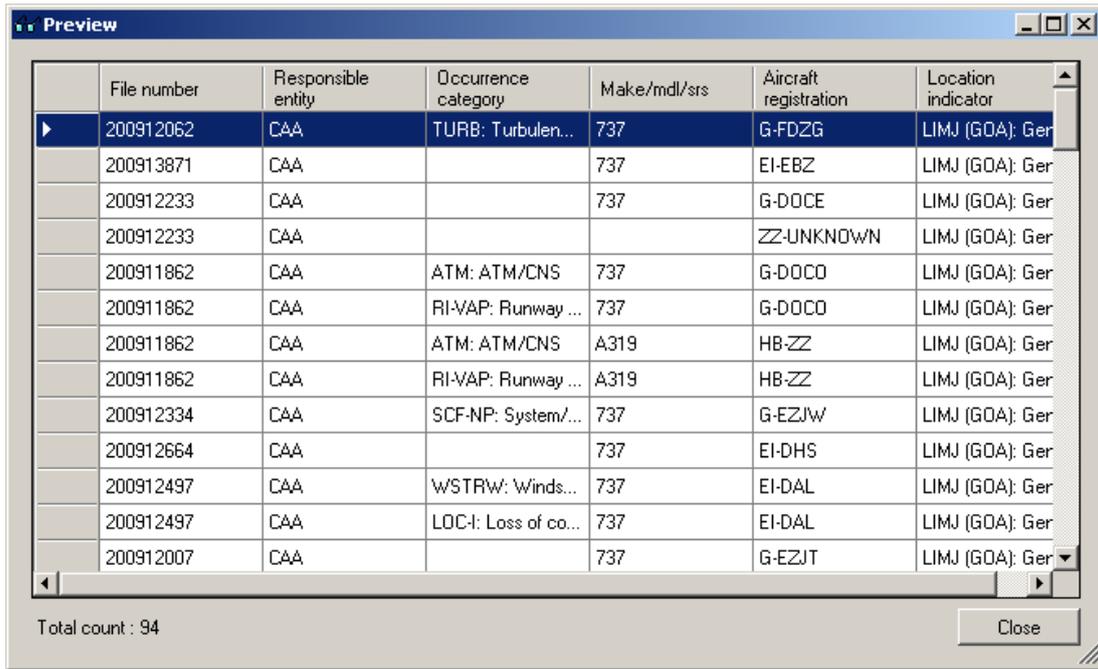


Panel items:

- ▶ **Credentials** - click the "connection" icon-button to display the ECCAIRS "Login" dialog where you can login to the Repository you wish with the suitable User.
- ▶ **Query** - the field shows either the name of the Query currently in use, if taken from a Query Library, of the generic text "(Query)" if the Query has been defined standalone on the spot (see below).

The icon-buttons on the right let you:

-  **Edit the Query** - click the "pencil" icon-button to display the "Query Editing" window ([see page 281](#)) that allows to:
 - Edit locally a Query already opened from a Query Library without the need to edit or define Queries using the Query Builder
 - Create and edit standalone Queries, i.e. not stored in a Query Library.
-  **Open a Query Library** - click the "open" icon-button to start the ECCAIRS Query Builder application that let you access and define Query Libraries and Queries ([see page 257](#)).
-  **Preview the Query result** - click the "glasses" icon-button to display a "Preview" dialog.

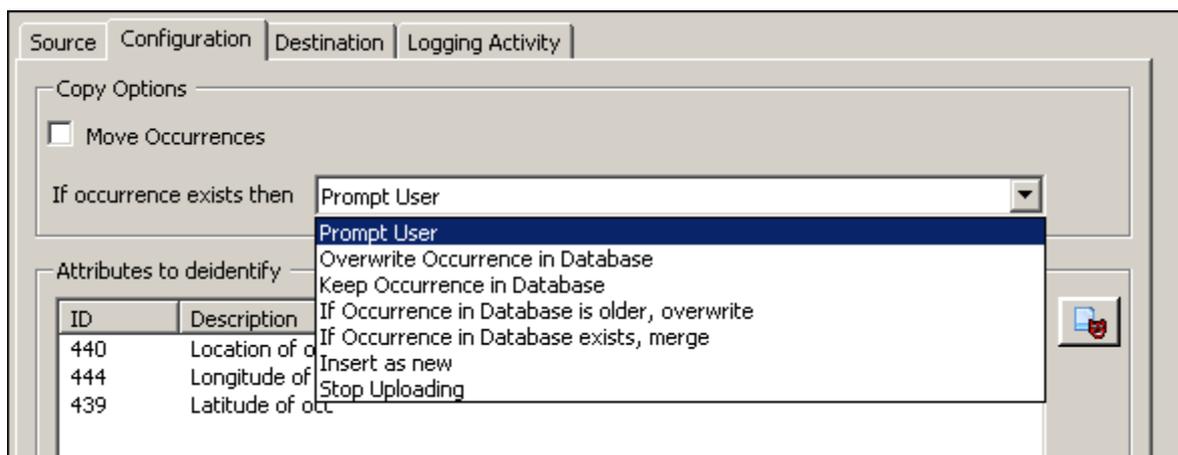


The dialog displays the total count of Occurrences matching the Query and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User that you have specified in the "Credentials" field. Click the "Close" button to exit the "Preview".

- **Explanation** - the explanation of the Query currently in use.

6.10.2. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you have to specify the copy options. In particular you can specify any Attribute to de-identify before loading the Occurrences into the target Repository database.



Panel items:

► **Copy Options** section:

- **Move Occurrences** - choose this option to move, rather than copy, Occurrences from the source Repository database to the target one. Consequently the Occurrences copied to the target Repository database will also be removed from the source one.
- **"If Occurrence exists then"**
 You can set the action that the tool must undertake when a duplicate Occurrence is detected when trying to load it into the database.
 The duplication is identified using the criteria which are specified in the Repository for the User/Role specified in the "Source" tab-panel ([see page 203](#)).
 Select one of the options listed in the "If Occurrence exists then" drop-down list:
 - **Prompt User** - a "Duplicate Occurrence" dialog will appear informing the User about the situation and asking the User how to proceed.

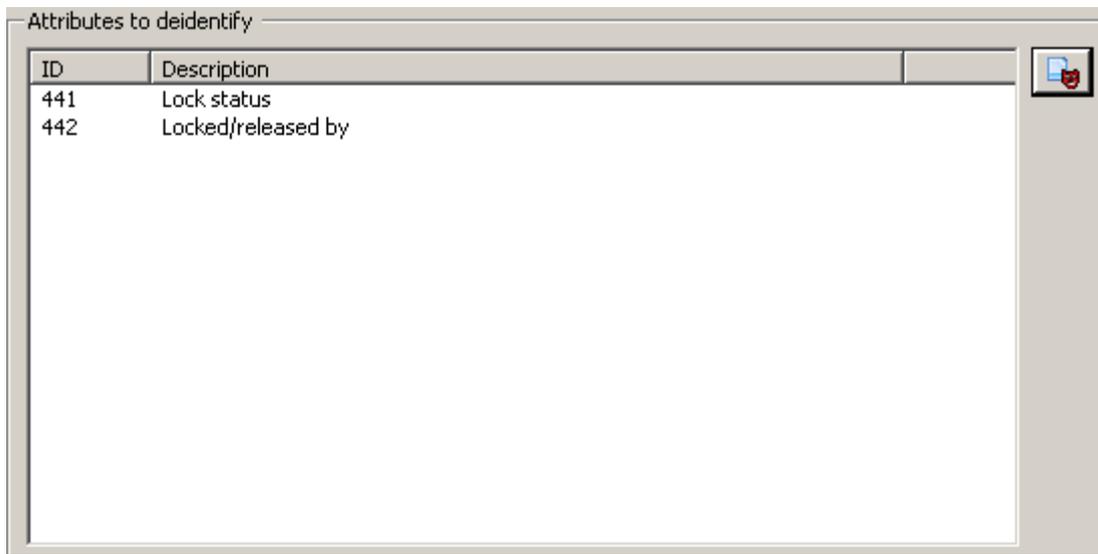


You can choose the action ("Operation to execute:") to perform. The actions are the same as those listed below.

You can choose the "Apply to All" option if you want to apply the same action to all the duplicate Occurrences detected.

- **Overwrite Occurrence in database** - the duplicate Occurrence in the target database is removed and the new Occurrence from the source database is inserted.
- **Keep Occurrence in database** - the duplicate Occurrence in the target database is retained and the new Occurrence from the source database is ignored.
- **If Occurrence in database is older, overwrite** - if the Occurrence from the source database has a more recent date than the Occurrence in the target database then replace the duplicate Occurrence in the target database by the new Occurrence from the source database.
- **If Occurrence in database exists, merge** - merge the content of the Occurrence to be loaded into the Occurrence already inside the target database. The merge procedure is performed according to the procedure specified in the Repository for the User/Role specified in the "Destination" tab-panel ([see page 206](#)).
- **Insert as new** - insert the Occurrence as new Occurrence in the target Repository database. A dialog is displayed, as in the "Prompt User" case, where you have to provide a new unique "ECCAIRS number".
- **Stop uploading** - stop the procedure.

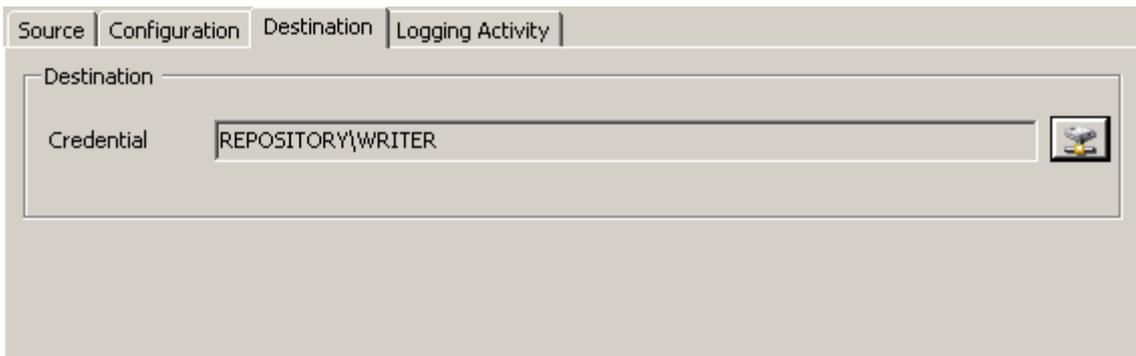
- ▶ **Attributes to deidentify** - if you need to de-identify the Occurrences to be loaded you have to specify which Attributes to de-identify. The panel lists the Attributes already selected for de-identification.



Click the "mask-shaped" icon-button on the right and select the Attributes using the standard multi "Attribute Selection" dialog ([see page 300](#)). Using the dialog you can add or remove Attributes to the de-identification list.

6.10.3. DESTINATION TAB-PANEL

The "Destination tab-panel let you specify the target Repository where the Occurrences are to be copied/moved.



Panel items:

- ▶ **Destination - Credentials** - click on the "connection" icon-button to display the ECCAIRS "Login" dialog where you can login to the target Repository you wish with the suitable User credentials ([see page 19](#)).

6.11. DATA EXCHANGER - PURGE REPOSITORY

The "Data Exchanger - Purge > Repository" function erases all or some of the Occurrences in a Repository.

The function offers you the possibility to backup the Occurrences before the removal.

The general operating sequence to use the "Data Exchanger - Purge" function is:

- ▶ Select which Occurrences will be deleted from the Repository database ([see page 208](#)).
- ▶ Specify if you wish to create backup Occurrence files for the Occurrences being removed ([see page 210](#)).
- ▶ Define the backup options- splitting options for the backup Occurrence file, if any ([see page 209](#)).
- ▶ Set the Logging options ([see page 189](#)).
- ▶ Execute the tool by clicking the "**Execute**" button. The tool displays a progress bar on the left of the button.
- ▶ Once the task has been performed the system shows a result dialog with the count of the Occurrences processed successfully and those non processed for errors. Click the "**OK**" button to dismiss the dialog.



- ▶ Examine the log file, if needed.

The "Purge" function of the "Data Exchanger" tool has four configuration tab-panels:

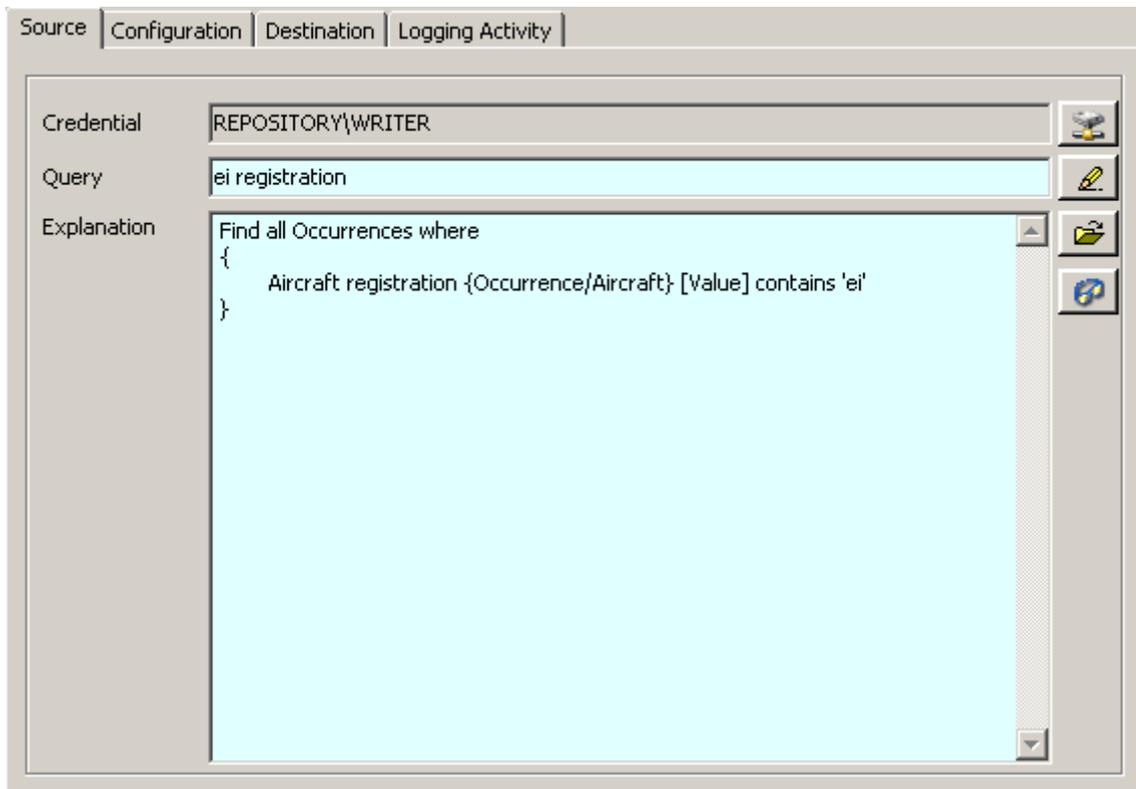
- ▶ **Source** - to specify which Occurrence files of the Repository database to delete.
- ▶ **Configuration** - to set splitting options for the backup Occurrence file, if any.
- ▶ **Destination** - to set a backup Occurrence file to be created before removing Occurrences from the database.
- ▶ **Logging Activity** - to set up logging and its options. This panel is the same for all the Data Exchange functions ([see page 189](#)).

At the bottom of the window

- ▶ **Execute** button - click this button to execute the purge function.

6.11.1. SOURCE TAB-PANEL

The "Source" tab-panel let you specify which of the Repository database Occurrences will be deleted. This is done by using a Query on the Repository database.



Panel items:

- ▶ **Credentials** - click the "connection" icon-button to display the ECCAIRS "Login" dialog where you can logon to the Repository you wish with the suitable User.
- ▶ **Query** - the field shows either the name of the Query currently in use, if taken from a Query Library, of the generic text "(Query)" if the Query has been defined standalone on the spot (see below).

The icon-buttons on the right let you:

-  **Edit the Query** - click the "pencil" icon-button to display the "Query Editing" window ([see page 281](#)) that allows to:
 - Edit locally a Query already opened from a Query Library without the need to edit or define Queries using the Query Builder.
 - Create and edit standalone Queries, i.e. not stored in a Query Library.
-  **Open a Query Library** - click the "open" icon-button to start the ECCAIRS Query Builder application that let you access and define Query Libraries and Queries ([see page 257](#)).
-  **Preview the Query result** - click the "glasses" icon-button to display a "Preview" dialog.

File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
200912062	CAA	TURB: Turbulen...	737	G-FDZG	LIMJ (GOA): Ger
200913871	CAA		737	EI-EBZ	LIMJ (GOA): Ger
200912233	CAA		737	G-DOCE	LIMJ (GOA): Ger
200912233	CAA			ZZ-UNKNOWn	LIMJ (GOA): Ger
200911862	CAA	ATM: ATM/CNS	737	G-DOCO	LIMJ (GOA): Ger
200911862	CAA	RI-VAP: Runway ...	737	G-DOCO	LIMJ (GOA): Ger
200911862	CAA	ATM: ATM/CNS	A319	HB-ZZ	LIMJ (GOA): Ger
200911862	CAA	RI-VAP: Runway ...	A319	HB-ZZ	LIMJ (GOA): Ger
200912334	CAA	SCF-NP: System/...	737	G-EZJW	LIMJ (GOA): Ger
200912664	CAA		737	EI-DHS	LIMJ (GOA): Ger
200912497	CAA	WSTRW: Winds...	737	EI-DAL	LIMJ (GOA): Ger
200912497	CAA	LOC-I: Loss of co...	737	EI-DAL	LIMJ (GOA): Ger
200912007	CAA		737	G-EZJT	LIMJ (GOA): Ger

Total count : 94

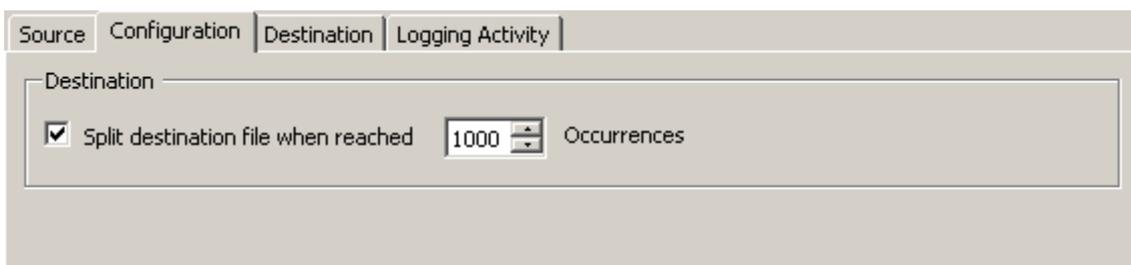
Close

The dialog displays the total count of Occurrences matching the Query and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User that you have specified in the "Credentials" field. Click the "Close" button to exit the "Preview" dialog.

- **Explanation** - the explanation of the Query currently in use.

6.11.2. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you specify options on the backup Occurrence file that can be generated before removing Occurrences from the Repository database.

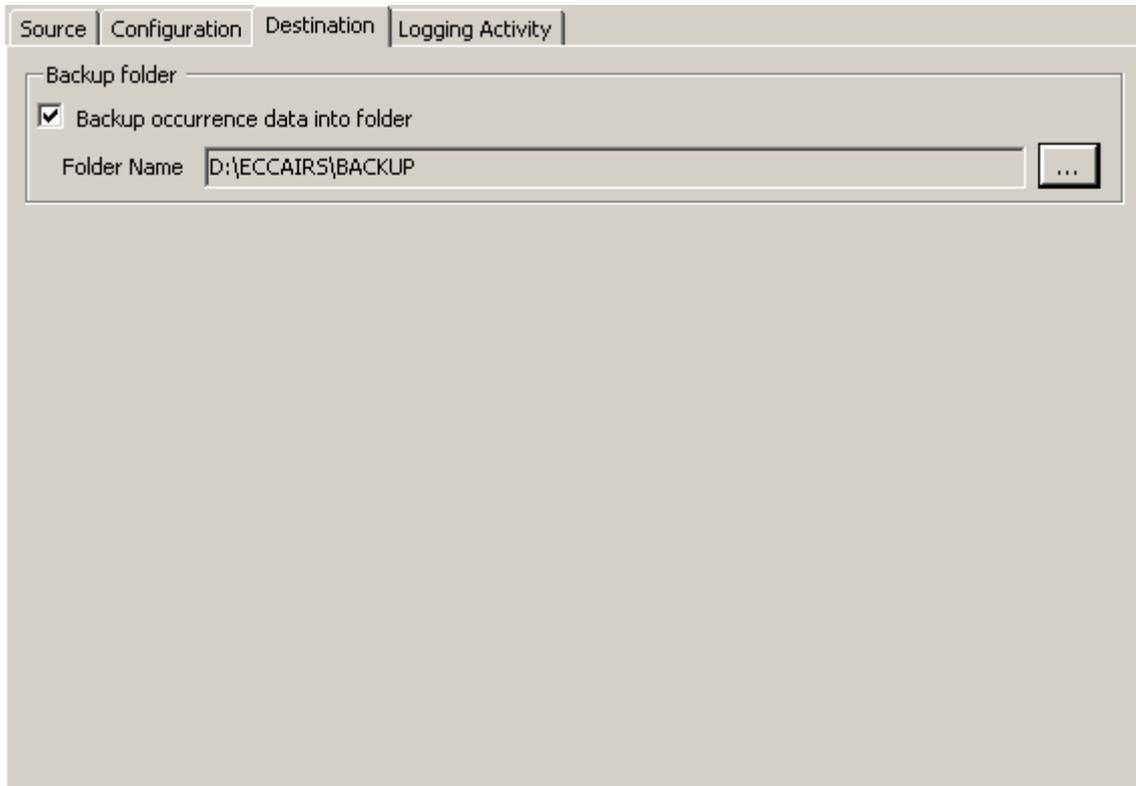


Panel items:

- **Destination - Split destination file when reached xxx Occurrences** - choose this option to split the backup Occurrence file into several smaller ones in case it contains more than "xxx" Occurrences. Set the field at the right of the check-box with the maximum number of Occurrences that can be saved into a single file. The naming conventions for the splitted files is described when dealing with the "Destination" tab-panel.

6.11.3. DESTINATION TAB-PANEL

The "Destination tab-panel let you specify if a backup Occurrence file should be created before removing Occurrences form the database.



Panel items:

▶ **Backup folder** section:

- **Backup Occurrence data into folder** - choose this option to generate a backup Occurrence file containing the Occurrences that are being removed from the Repository database.
- **Folder Name** - use the standard Windows folder selection dialog to locate the folder where the backup Occurrence file(s) will be stored. You can create a new folder for the backup using the same dialog.

If the backup Occurrence file has been split into several smaller ones, because of its size and the option set in the "Configuration" tab-panel, then each backup file will have the name followed with the particular range of Occurrences saved.

6.12. BATCHELOR TOOL

The Batchelor is a tool which is used to make Batch type of modifications to a set of Occurrences stored in a Repository database or in an Occurrence file.

It can be used to make simple straightforward changes but for advanced Users possibilities exist to make conditional changes and apply scripts on the data.

This tool works directly on the physical structure of an Occurrence, thus modifying the content of the Repository database.

The Batchelor is therefore aimed at advanced Users of the ECCAIRS Reporting System.

To get more information follow these links:

- ▶ Using the Batchelor ([see page 211](#)).
- ▶ Batchelor Functions and Tab-Panels ([see page 213](#)).

6.12.1. USING BATCHELOR

This tool let you specify the Occurrences to be processed with through a Query in the Repository database .

Each action on the Occurrences is specified by a Processor which is triggered by specific conditions. You can add as many Processors as you wish.

The Batchelor will execute sequentially all configured processors.

The Occurrences processed can be saved in the Repository database or as an Occurrence file.

Before using the Batchelor you should read about Processors and the way Batchelor executes them ([see page 212](#)).

To perform a Batchelor conversion:

- ▶ Define the Occurrences to be processed ([see page 214](#)).
- ▶ Define the destination for the Occurrences processed ([see page 218](#)).
- ▶ Set a backup folder, if any ([see page 219](#)).
- ▶ Add/Remove/Move Processors ([see page 217](#)).
- ▶ Setup each Processor ([see page 221](#)).
- ▶ Set the Logging options ([see page 220](#)).
- ▶ Execute the tool by clicking the "**Execute**" button.
- ▶ Examine the log file, if needed.

6.12.2. PROCESSORS

The Batchelor tool is based on Processors. A Processor is a collection of conditions and actions able to modify your source Occurrence data.

The Batchelor is based on external components called Add-Ins. In fact the Processor passes each source Occurrence to the Add-in, which does the job and returns the possibly modified Occurrence back to the Batchelor environment.

The Batchelor tool comes with a "Standard" Add-in, that is the one we refer to in this documentation. Also in the rest of the documentation we will use the word "Processor" to refer to the sum of the Processor (internal) and the standard Add-in (external) actions.

For each source Occurrence the Batchelor:

- ▶ executes the first Processor which, if its triggering condition is satisfied, executes the associated actions which involve modifications to the Occurrence.
- ▶ the Batchelor then executes, for the same Occurrence, the second Processor if its triggering condition is satisfied on the basis of the results returned by the previous Processor, then the third Processor, and so on.
- ▶ after the last processor has finished, the Batchelor skips to the second source Occurrence and walks through the entire batch of Processors again.

The two elements of a Processor are:

- ▶ **Conditions**
- ▶ **Actions**

Processors are managed (add, edit, delete) in the "Configuration" tab-panel ([see page 217](#)).and actually edited using the Configure "Standard" dialog ([see page 221](#)).

6.12.2.1. CONDITIONS

The conditions represent the necessary amount of information that allows the processor to understand whether the current Occurrence record must be processed by the Add-In or not. A condition consists of a comparison Attribute, a comparison operator and a comparison value.

For each processor, a number of conditions can be specified concurrently, making use of a mixture of Attributes.

You can set conditions on several Entities and, for each Entity, on several of its Attributes ([see page 224](#)).

All conditions are linked with an "AND" statement which means that the different comparisons are chained together into a single criterion where all the components must be true at the same time.

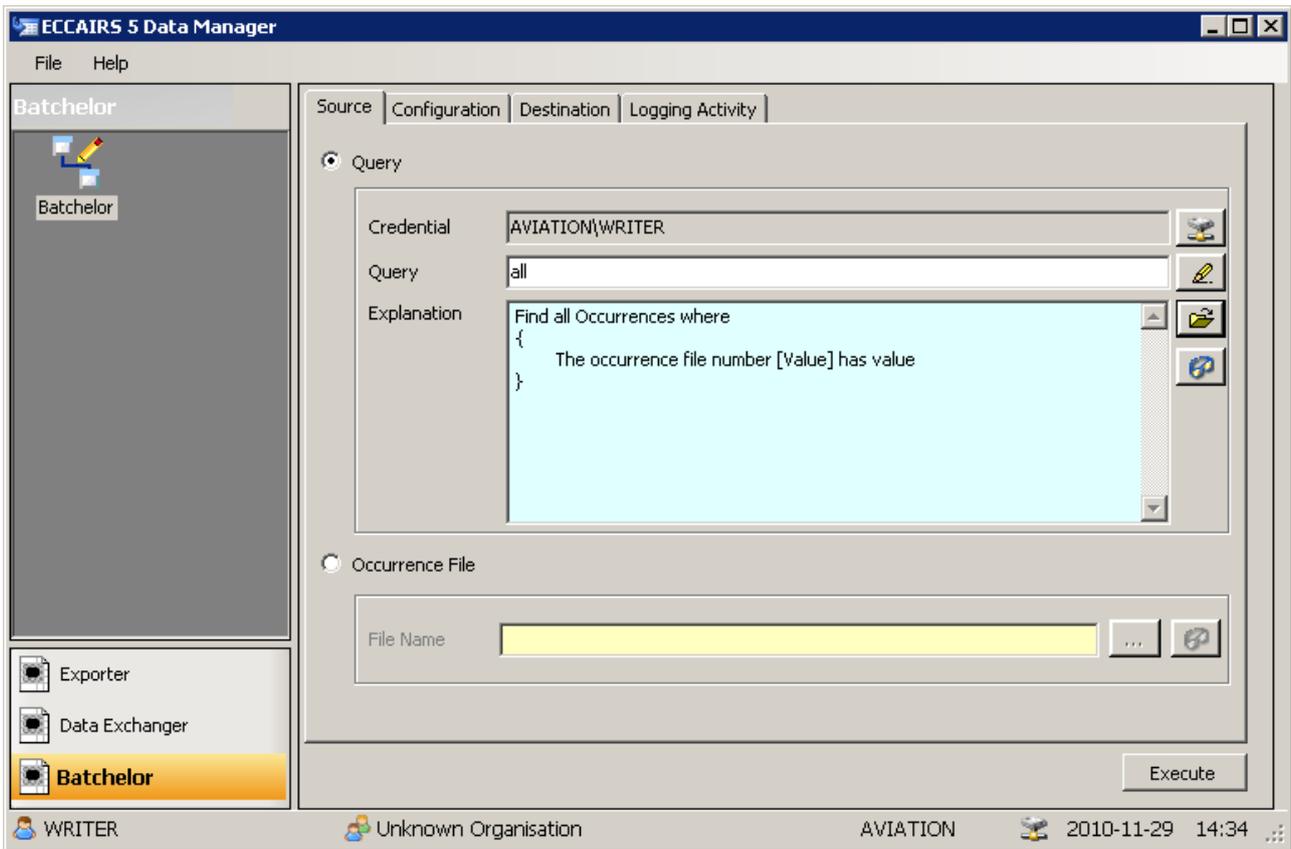
To set conditions in logical "OR", i.e. only one condition need to be true, teen you need to define different processors ([see page 224](#)).

6.12.2.2. ACTIONS

The action is the operation that the processor performs on the Occurrence data .

Action includes updating data (such as changing the number of engines from 2 to 4) but also activities like adding Attribute values and sub-Entities (like adding a second engine to an aircraft or adding a note), deleting and more.

6.12.3. BATCHELOR: FUNCTIONS AND TAB-PANELS



The Batchelor tool includes four configuration tab-panels and the "Execute" button:

- ▶ **Configuration panel** - you can select and edit parameters in each panel by clicking on the corresponding upper tab:
 - **Source** - to specify the Occurrences to be processed.
 - **Configuration** - to specify the processes that Batchelor will run on the Occurrences.
 - **Destination** - to set the destination for the processed Occurrences.
 - **Logging Activity** - to set up logging and its options.
- ▶ **Execute** button - you click this button to execute all Processors in the "Configuration" tab-panel.

6.12.4. SOURCE TAB-PANEL

The "Source" tab-panel let you specify the Occurrences that the "Batchelor" tool will process. The Occurrences may be specified by an Occurrence file or by a Query in the database.

Source | Configuration | Destination | Logging Activity

Query

Credential: REPOSITORY\WRITER

Query: ei registration

Explanation: Find all Occurrences where
{
 Aircraft registration {Occurrence/Aircraft} [Value] contains 'ei'
}

Occurrence File

File Name: [Yellow field]

Execute

There are two sections in the "Source" tab-panel:

- ▶ **"Query" section**
- ▶ **"Occurrence File" section**

6.12.4.1. "QUERY" SECTION

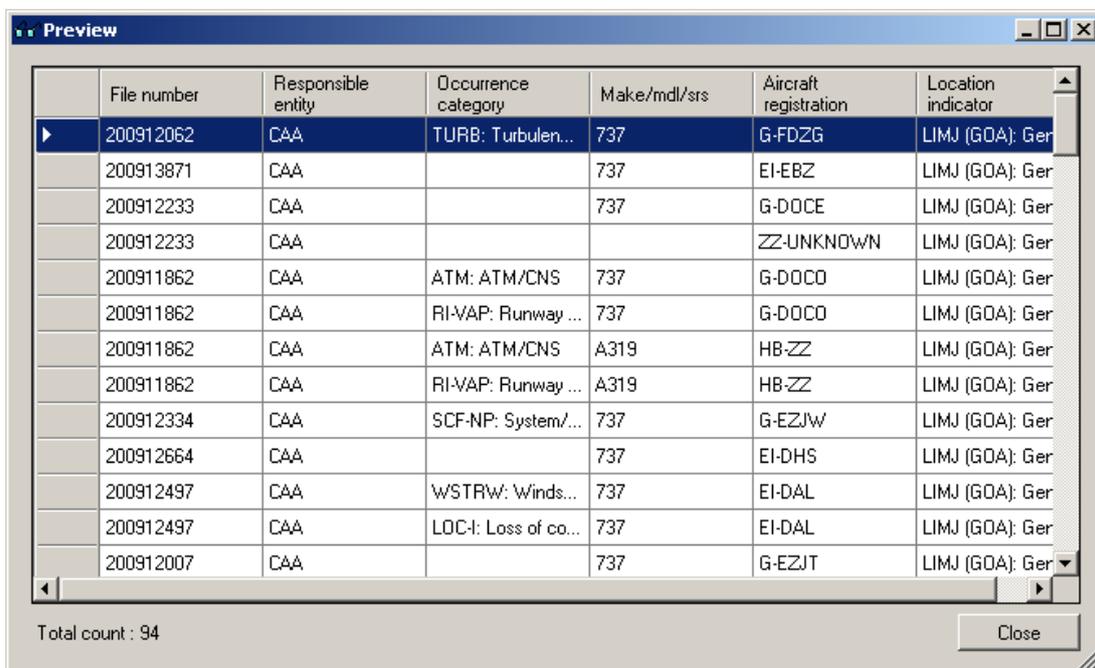
In the Query panel you specify the Query that will extract the Occurrences to be processed by the Batchelor.

Panel items:

- ▶ **Credentials** - click the "connection" icon-button to display the ECCAIRS "Login" dialog where you can login to the Repository you wish with the suitable User.
- ▶ **Query** - the field shows either the name of the Query currently in use, if taken from a Query Library, of the generic text "(Query)" if the Query has been defined standalone on the spot (see below).

The icon-buttons on the right let you:

-  **Edit the Query** - click the "pencil" icon-button to display the "Query Editing" window ([see page 281](#)) that allow to:
 - Edit locally a Query already opened from a Query Library without the need to edit or define Queries using the Query Builder
 - Create and edit standalone Queries, i.e. not stored in a Query Library.
-  **Open a Query Library** - click the "open" icon-button to start the ECCAIRS Query Builder application that allows you access and define Query Libraries and Queries ([see page 257](#)).
-  **Preview the Query result** - click the "glasses" icon-button to display a "Preview" dialog.



The screenshot shows a window titled "Preview" containing a table with the following data:

File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
200912062	CAA	TURB: Turbulen...	737	G-FDZG	LIMJ (GOA): Ger
200913871	CAA		737	EI-EBZ	LIMJ (GOA): Ger
200912233	CAA		737	G-DOCE	LIMJ (GOA): Ger
200912233	CAA			ZZ-UNKNOWN	LIMJ (GOA): Ger
200911862	CAA	ATM: ATM/CNS	737	G-DOCO	LIMJ (GOA): Ger
200911862	CAA	RI-VAP: Runway ...	737	G-DOCO	LIMJ (GOA): Ger
200911862	CAA	ATM: ATM/CNS	A319	HB-ZZ	LIMJ (GOA): Ger
200911862	CAA	RI-VAP: Runway ...	A319	HB-ZZ	LIMJ (GOA): Ger
200912334	CAA	SCF-NP: System/...	737	G-EZJW	LIMJ (GOA): Ger
200912664	CAA		737	EI-DHS	LIMJ (GOA): Ger
200912497	CAA	WSTRW: Winds...	737	EI-DAL	LIMJ (GOA): Ger
200912497	CAA	LOC-I: Loss of co...	737	EI-DAL	LIMJ (GOA): Ger
200912007	CAA		737	G-EZJT	LIMJ (GOA): Ger

At the bottom of the dialog, it says "Total count : 94" and has a "Close" button.

The dialog displays the total count of Occurrences matching the Query and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User that you have logged in.

Click the "Close" button to exit the "Preview" dialog.

- ▶ **Explanation** - the explanation of the Query currently in use.

6.12.4.2. "OCCURRENCE FILE" SECTION

If you select this option you have to specify in the "Occurrence File".

Panel items:

- ▶ **File Name** - click the "..." button at the right of this field to locate and specify the Occurrence file name using the standard "Open" dialog.
- ▶ **Preview the Query result** - click the "glasses" icon-button at the right to display a "Preview" dialog.

File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
878	AIB	EVAC: Evacuation	II	CBY-55	NSTU (PPG): Pa
985	AIB	CFIT: Controlled f...	CUBY	CBY543	PAAQ (PAQ): Pa
1234	AIB	ICE: Icing	II	4178	OAAD : Amdar
999	Airservices Austr...		II		PAAQ (PAQ): Pa
32	AIB	EXTL: External lo...	AG COBRA	WER45	
741	AIB	BIRD: Birdstrike	II	CBY44	OAAD : Amdar
177	AIB		II	REG45	(IGB) : Ingeniero
10	JIAAC		M100S	PEG45	PAAQ (PAQ): Pa
987	AIB		720	3332	DAAB : Blida

Total count : 14

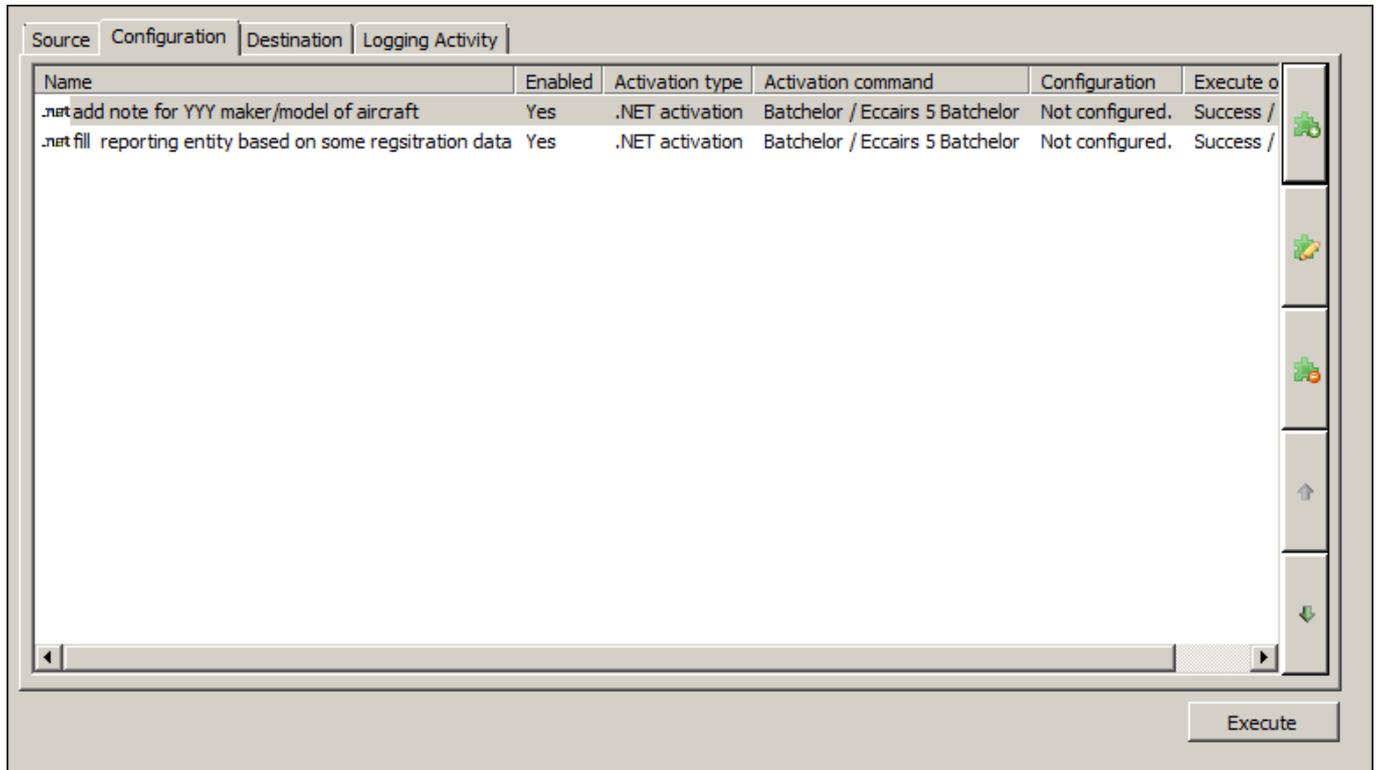
Close

The dialog displays the total count of Occurrences in the file and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User that you have logged in. Click the "Close" button to exit the "Preview" dialog.

6.12.5. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you specify the actions that the Batchelor tool must undertake on the source Occurrences specified in the "Source" tab-panel.

The actions are specified as a set of Processors executed sequentially in the order specified. Each Processor action is triggered by some conditions on the input Occurrence.



The panel lists the Processors defined so far, with their name and some other key properties of those defined in the "Edit Processor" dialog when adding or editing the Processor, including the Processor enable/disable status.

A Processor will be executed only if it has been enabled (see the second column in the list) and if the "Execute on" condition has been satisfied by the previous Processor, if any.

Both these options are set in the "Edit Processor" dialog that shows up when adding or editing a Processor ([see page 221](#)).

Using the icon-buttons on the right you can:

- ▶ **Add Processor** - add a new Processor.
The "Edit Processor" dialog shows up to actually define the Processor ([see page 221](#)).
- ▶ **Edit Processor** - edit the Processor currently selected in the list.
The "Edit Processor" dialog shows up to actually define the Processor ([see page 221](#)).
- ▶ **Remove Processor** - remove the Processor currently selected in the list.
- ▶ **Move Processor Up/Down** - move up/down the Processor in the execution list.
The execution order may be important if some Processors is based on Entities or Attributes which may be modified by other Processors.

6.12.6. DESTINATION TAB-PANEL

The "Destination" tab-panel let you specify the target Repository where the Occurrences are to be copied/moved.

You can also set up options to make test executions without altering any Occurrence data but generating logs to check the correct functionality of the Processors you have configured.

Source | Configuration | Destination | Logging Activity

Save to

Current Source ([REPOSITORY\WRITER])

New File

Destination

File Name D:\ECCAIRS\batchelor output.e43f ...

Append Date/Time stamp to file name

Include in output file also non modified occurrences

Backup folder

Backup occurrence data into folder

Folder Name ...

Execute

There are two sections

- ▶ **"Save to" section**
- ▶ **"Backup folder" section**

6.12.6.1. "SAVE TO" SECTION

You can save the processed Occurrences either in the source (Repository database or Occurrence file) or in a new Occurrence file or even in both at the same time.

You can also choose to disable all output options so that no Occurrence will be modified. However the Batchelor will still execute all the Processors and you may use the log file generated to check that the Processors configuration works correctly.

Panel items:

- ▶ **Current Source** - if you select this option the Occurrences will be modified directly inside the source of the Occurrences specified: either a Repository or an Occurrence file. The current Repository\User, or Occurrence file path, are displayed in parentheses at the right of the checkbox (e.g. MyRepository\MyUser, D:\ECCAIRS\MySourceOccurrenceFile.e5f).
- ▶ **New File** - to save the processed Occurrences in a new Occurrence file:
 - **File Name** - click the "..." button at the right of this field to specify the destination Occurrence file name using the standard "Save" dialog.
 - **Append Date/Time Stamp to File Name** - choose this option to append a date and time stamp to the file name. For instance, if you choose "my export file" as file name with an "Excel Worksheet" export function, then the actual export file name after the execution on Sept. 18th 2011 at 13:50 and 23 sec would be:
`my export file_18-09-2010 13-50-23.xls`
 - **Include in Output File also Non Modified Occurrences** - select it to include in the output Occurrence file also the Occurrences that will not be modified by the Batchelor Processors.

6.12.6.2. "BACKUP FOLDER" SECTION

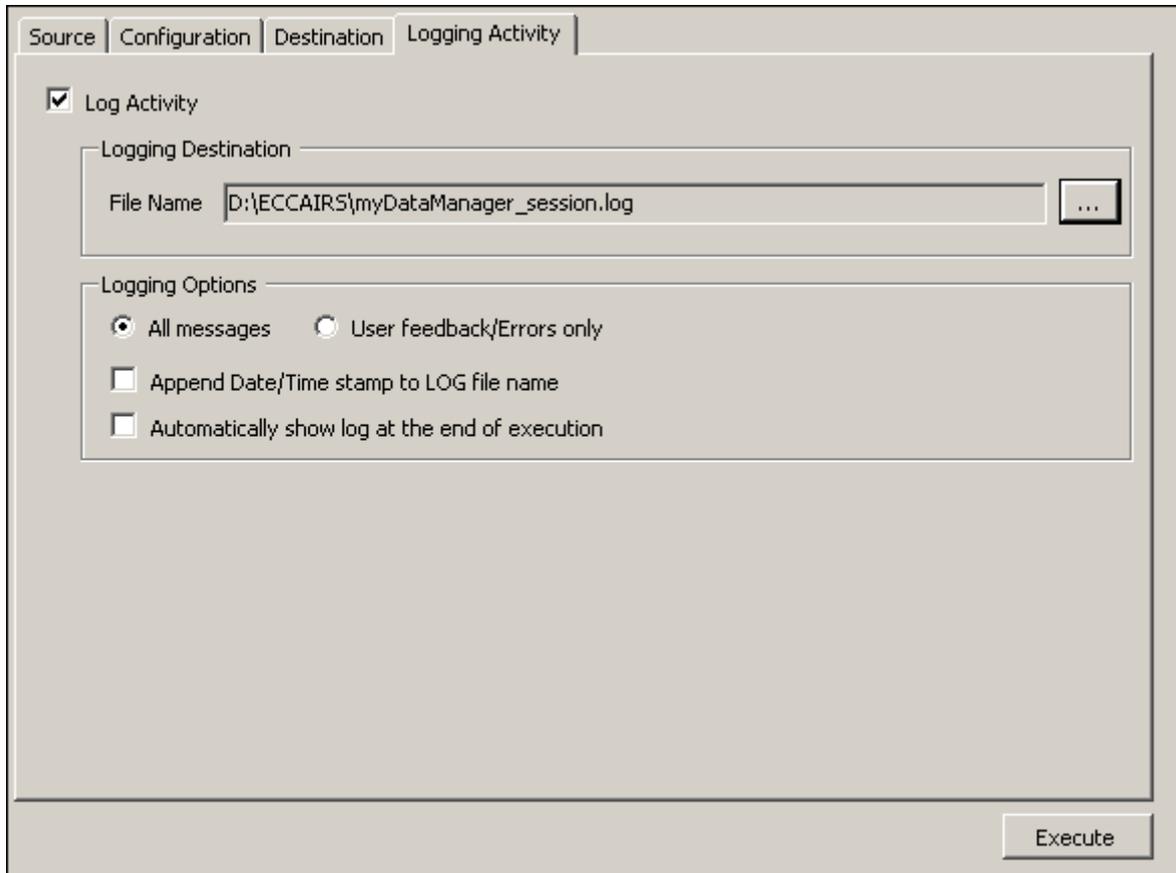
Running a Batchelor processor may modify the source Occurrence if the "Current Source" option has been selected in the "Save to" section. To prevent the loss of important data it is recommended to create a backup of the Occurrences that will be processed.

Panel items:

- ▶ **Backup Occurrence Data into Folder** - select this option to generate a backup Occurrence file containing the Occurrences that are being modified in the Repository database.
- ▶ **Folder Name** - use the standard Windows folder selection dialog to locate the folder where the backup Occurrence file(s) will be stored. You can create a new folder for the backup using the same dialog. This action will automatically create a new folder named with the date (yyyy-mm-dd) and time (h.min.sec) of execution.
Inside this folder the application creates the file "E5Batchelor.e51".

6.12.7. LOGGING ACTIVITY TAB-PANEL

The "Logging Activity" tab-panel let you enable/disable logging and specify its options.



You can create a log file every time you execute a Data Manager tool. You cannot append logging to an existing log file. The file will be overwritten on execution.

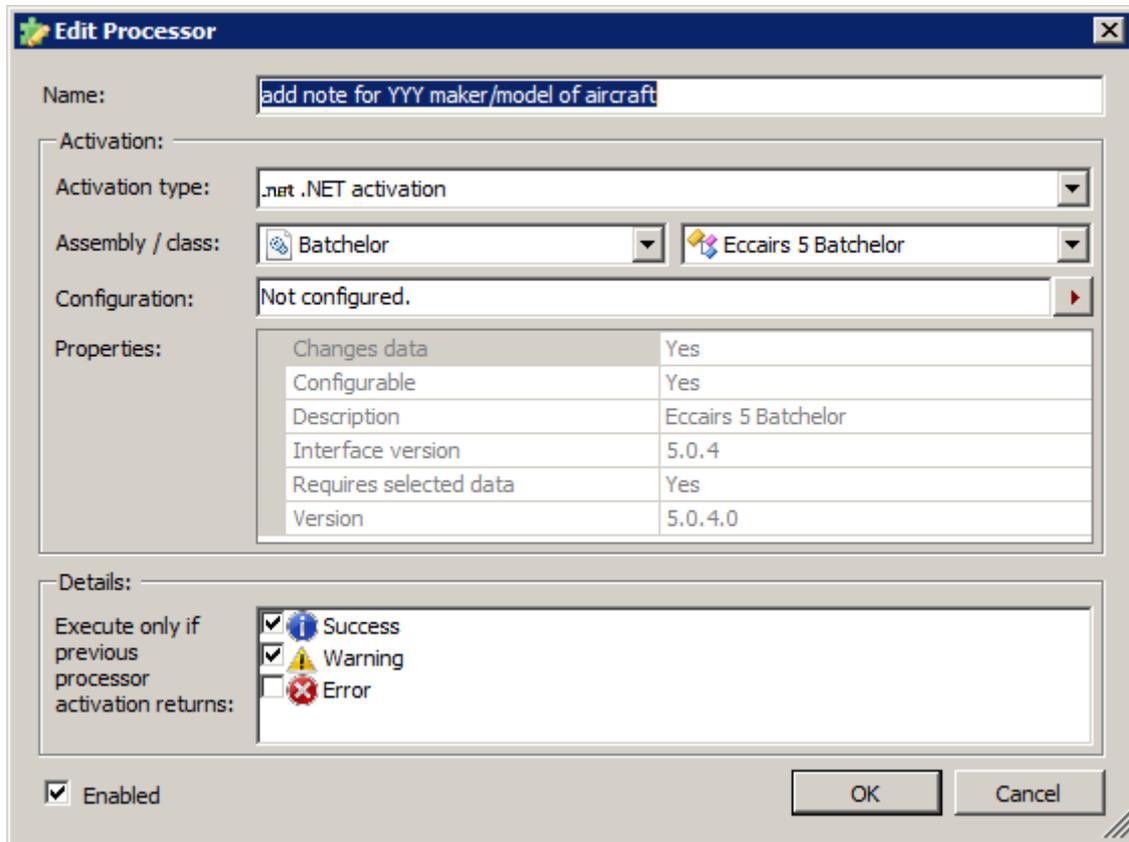
This means that a log file contains log messages for every single Data Manager tool execution.

Panel items:

- ▶ **Log Activity** - choose this option to enable logging.
- ▶ **Logging Destination** -section:
 - **File Name** - click the "... " button at the right of this field to specify the log file name and location using the standard "Save" dialog.
- ▶ **Logging Options** section:
 - **All messages / User feedback / Errors only** - specify whether the log file includes all messages or only User feedback and error messages.
 - **Append Date/Time stamp to LOG file name** - select it to append a date and time stamp to the log file name. For instance, if you choose "mylogfile" as file name, then the actual log file name after the execution on Sept. 18th 2011 at 13:50 and 23 sec would be: mylogfile_18-09-2010 13-50-23.log
 - **Automatically show log at the end of executions** - select it to have Data Manager open the log file at the end of the execution.

6.12.8. EDITING PROCESSORS

When you add/edit a Processor you get an "Edit Processor" dialog, where you define the "Add-In" that executes the Processor and you configure its actions.

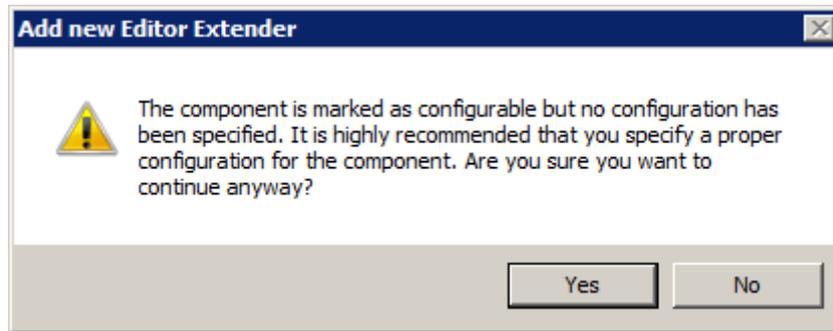


Dialog items:

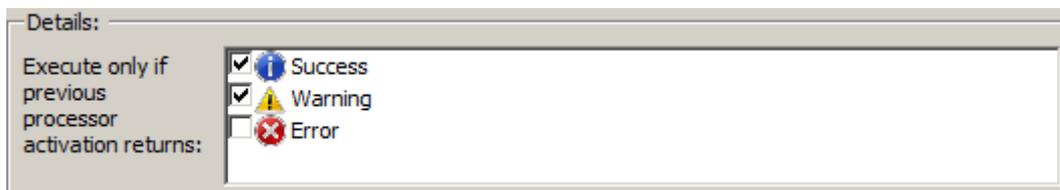
- ▶ **Name** - (text box - mandatory) a name for the Processor. This name is a mandatory requirement. If no name is given you get an error dialog and you will not be able to save the Processor.
- ▶ **Activation** - (section) a setting section dealing with the specific Add-In used to implement the Processor:
 - **Activation type** - (drop-down list) the software framework in which the Add-In has been programmed to communicate with the ECCAIRS system: .NET or COM.
 - **Assembly / class** - (drop-down lists) the Assembly (software library module) and the specific class (method) to invoke when the triggering action takes place. They are bound to Add-Ins or other support modules provided by ECCAIRS. All the assemblies and corresponding classes are selectable via drop-down lists. The selections you should make are described in the installation/technical documentation provided with the Add-In or from the ECCAIRS System Administrator. You normally use the Batchelor Add-In, so select from the drop-down lists:
 - **Assembly = "Batchelor"**.
 - **Class = "ECCAIRS 5 Batchelor"**.
 - **Configuration** - (display box and button) clicking on the corresponding arrow-shaped "Edit" button on the right let you configure the Add-In specified before with the "Assembly" and "Class" entry. You get an activation-type specific dialog where you may configure the Add-In, whenever appropriate.

You normally use the Batchelor Add-In, so clicking on the button the shows up the "Batchelor Standard Add-In Configure" dialog to actually define the Processor ([see page 223](#)).

If there are no configuration options available for a specific Add-in, other from the Batchelor one, you get a notification dialog: "The component is not configurable". If, vice versa, any configuration is needed and you have not yet performed it when closing the Add/Edit dialog, ECCAIRS displays a warning message.



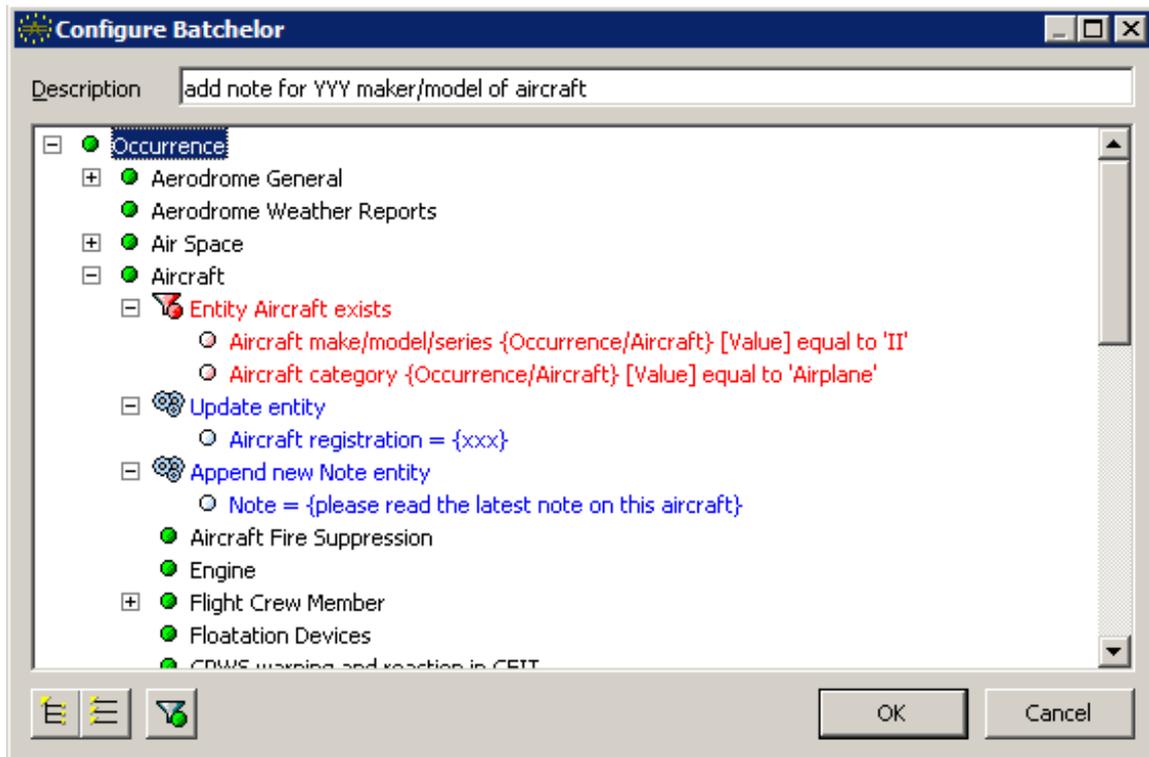
- **Properties** - (read-only text box) displays summary technical information on the Add-In.
- ▶ **Details** - (section) a setting section specifying if the Processor must be executed, depending on the result provided by the previous Processor listed in the "Configuration" tab-panel. Use the check boxes to choose one or more exit conditions provided by the previous Processor that allow the execution of the current Processor among:



- **Success** - (check box) execute the Processor if the previous one returns a "success" state.
- **Warning** - (check-box) execute the Processor if the previous one returns a "warning" state.
- **Error** - (check-box) execute the Processor if the previous one returns an "error" state.
- ▶ **Enabled** - (check box) choose this option to enable or disable the Processor. This way you can easily "switch on/off" an Processor with no reconfiguration needed or, for instance, configure it partially and then leave it disabled for later completion.

6.12.9. CONFIGURING PROCESSORS

You configure a Processor using the "Configure Batchelor" dialog.



This window displays all the Entities that represent the structure of an Occurrence.

Entities, together with Attributes, are the building blocks of the Taxonomy. The Taxonomy is at the base of a Repository and its Views.

To get a complete view of a Taxonomy can use the "Taxonomy Browser" tool within the ECCAIRS Reporting System.

Dialog items:

- ▶ **Description text box** - type here a title/description for the Processor. This action is mandatory.
- ▶ **Conditions/Activities panel** - here you create/edit Conditions and Actions on Entities ([see page 224](#)).
- ▶ **Expand/Collapse buttons** - use these buttons to expand/collapse the Entity-tree. Remember that Entities are all children of the Occurrence, which is the root Entity, and may have child Entities.
You can also expand/collapse single branches clicking on the nodes of the Entity-tree.
- ▶ **Filter button** - use this button to show in the "Conditions/Activities" panel only Entities whose name matched the text string entered in the text box that shows up on clicking the button.
- ▶ **OK/Cancel buttons** - to exit the dialog. Click the "OK" button to accept the editing done or "Cancel" to discard it.

The items in the dialog are few, but most of the editing is done working inside the Conditions-Activities panel using its Right-click menu-items.

To exit the dialog click:

- ▶ **OK** - to accept the editing done and close the dialog.
- ▶ **Cancel** - to discard the editing.

6.12.9.1. EVALUATING CONDITIONS

The Processor can set Conditions on several Entities and they will all be evaluated in logical AND. This means that all the Conditions on all the Entities must be satisfied to trigger the Actions associated to each Entity.

Each Entity-Condition, in turn, is based on one or more Attributes of the Entity. These Attribute-Conditions are evaluated in logical AND, this means that all the Attribute-Conditions must be satisfied to trigger the Condition Action(s).

6.12.9.2. EXPRESSING CONDITIONS IN LOGICAL OR

To sum up, within a single Processor all the Attribute-Conditions in all the Entity-Conditions must be satisfied together to trigger the Actions specified.

If you need to express Entity-Conditions or, within the same Entity, Attribute-Condition that will be evaluated in logical OR, i.e. evaluated independently on the other one, then you need to define it into another Processor.

If you need to do so, remember that each Processor works on the Occurrence modified by the previous Processor(s) in the list.

You can associate to each Entity-Condition one or more Actions.

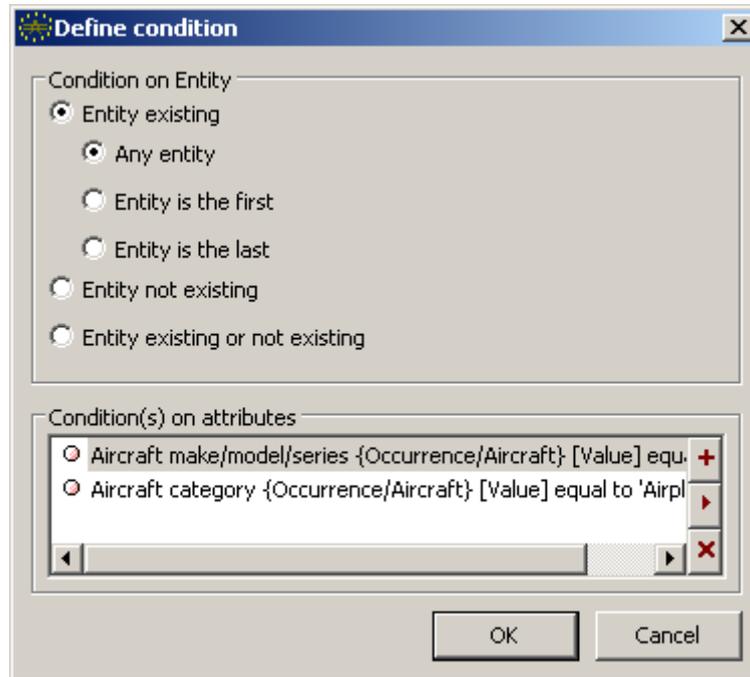
6.12.9.3. HOW TO CONFIGURE A PROCESSOR

To configure a processor, follow these steps:

- ▶ (mandatory) Type a title/description for the Processor in the "Description" text box.
- ▶ For each Entity you want to modify:
 - Select the Entity.
 - Add as many Conditions as needed by selecting the "Right click > Define Condition" menu-item.
This will open the "Define Condition" dialog where you define a one or more Attribute-Conditions on the Entity ([see page 225](#)).
 - An Entity-Condition red node is appended to the Entity node.
The Attribute-Conditions are listed below the Entity-Condition.
Each Attribute-Condition is a separate line and is also marked in red.
 - Select the Entity-Condition.
 - Add the Actions needed by selecting "Right click > Append Action" menu-item.
This will open the "Action" dialog where you actually define the Action ([see page 226](#)).
- ▶ Once you have set all Conditions and Actions on the Entity(ies) you can exit the "Configure Standard" dialog. To exit the dialog:
 - **OK** - to accept the editing done and close the dialog.
 - **Cancel** - to discard the editing.

6.12.9.4. DEFINE CONDITION DIALOG

The "Define Condition" dialog let you define one or more Attribute-Conditions on the same Entity.



The panel has two sections:

- ▶ **Condition on Entity** - you can put a single Condition on the Entity.
- ▶ **Condition(s) on Attributes** - you can put Conditions on any of the Attributes belonging to the Entity.

Condition on Entity

The options for the Entities are used to instruct the processor to look for:

- ▶ **Entity existing** - this condition is true when this Entity is available in the Occurrence record. For instance, in the air safety domain, if an aircraft was involved in the incident and it was properly entered using the Browser.
 - Under this option, additional choices are possible:
 - **Any Entity** - with this choice, the Entity can be in any position within the list of same Entities. For instance, it can be the first, second, fifth or last aircraft stored in the Occurrence.
 - **Entity is the first** - it is the first one.
 - **Entity is the last** - it is the last one.
- ▶ **Entity not existing** - this condition is true when this Entity is not available in the Occurrence record. For instance, in the air safety domain, when air traffic control was involved in the incident but the ATS Unit was never entered.
- ▶ **Entity existing or not existing** - a combination of the above with the exception of being able to track the position of the Entity in the Occurrence.
 - This option can be used as a work around when you need to define another Processor only to express conditions in logical OR ([see page 224](#)).

The options and choices above are mutually exclusive.

Conditions on Attributes

The Attributes section of the panel can be used to restrict the focus of the tool to an even smaller set of Occurrences than those that would be considered using only the Entity conditions. By clicking on the button at the right side, Attribute conditions are added.

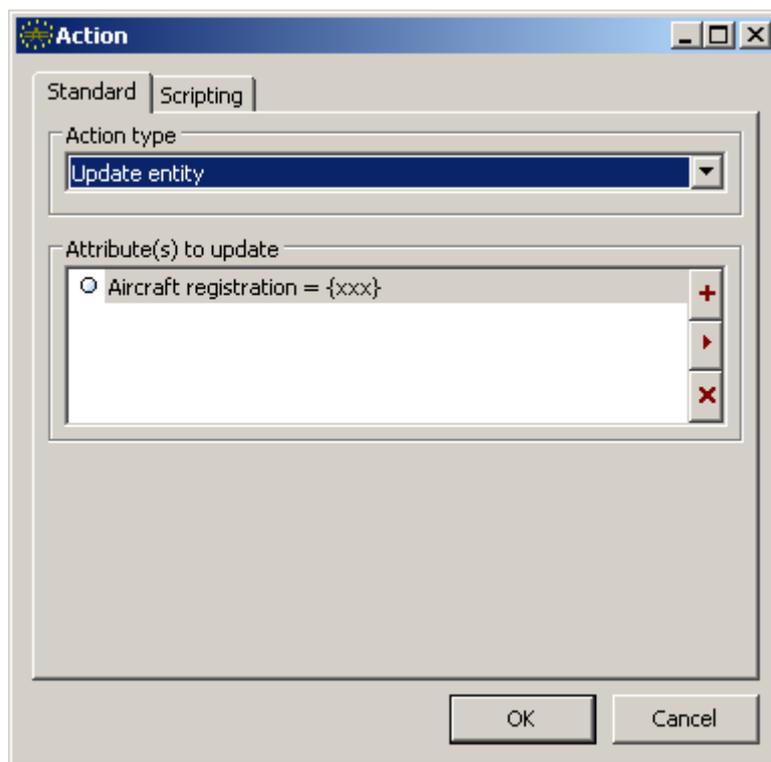
The definition of the Attribute condition is done via the "Query Editing" dialog in the Query Builder ([see page 281](#)).

Many Attribute-Conditions can be specified at the same time. Please keep in mind that specifying more than one Attribute-Condition may prevent the tool from updating the Occurrence record, due to the fact that the resulting condition is hitting more exceptions than targets.

As in the Query Builder, most operators work only on existing data. For instance, in the air safety domain, if looking for records involving Boeing 747 aircrafts with a number of engines different from 4, those records for which this Attribute was never specified will not be processed. In this case, post an Attribute condition using the 'has no value' operator. In the event, this may require creating a second instance of the same Processor.

6.12.9.5. ACTION DIALOG

You set the Actions performed by a Processor using the "Action" dialog.



There are two tab-panels available:

- ▶ **Standard tab-panel** - you can set here actions on the Entity Attributes. See below.
- ▶ **Scripting tab-panel** - here you can perform advanced management of conditions. This topic it goes beyond the scope of this document. Refer to the ECCAIRS Portal and the ECCAIRS Co-ordination and Development team.

"Standard" tab-panel

In the "Standard" tab-panel we have two or more sections, the "Action Type" section and one or more section(s) to specify actions suitable to the "Action Type" selected.

Action Type section:

- ▶ **Append new Entity** - A new empty Entity is added to the Occurrence that is child of the current Entity, in the above example this could be the Entity of the flight crew members. In the sections displayed below you must select the sub-Entity to append and one or more of its Attribute values.
- ▶ **Delete Entity** - This action removes the current Entity, the Attributes of this Entity and all child Entities and Attributes as well.
- ▶ **Link Entity** - This action creates a link between the current Entity and a new Entity. This type of action can be used for instance, in the air safety domain, for linking an aircraft to a determined airspace or event. In the sections displayed below you must select the sub-Entity to link and one or more of its Attribute values.
- ▶ **Unlink Entity** - This action removes an existing link between the current Entity and another Entity.
- ▶ **Update Entity** - This action will instruct the processor to operate changes on the values of one or more Attributes that are part of an Entity. In the section below there is a list of the Attributes that need to be updated. The list must contain at least one Attribute.

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6.13. DEIDENTIFICATION RESTORER TOOL

The "Deidentification Restorer" tool let you restore identification data on de-identified Occurrence files. This tool is included in the Data Manager only if the Repository and the Role/User you logged in allows this function for the User/Role.

To get more information see:

- ▶ **Using the Restorer** ([see page 229](#)).
- ▶ **Restorer Tab-Panels** ([see page 230](#)).

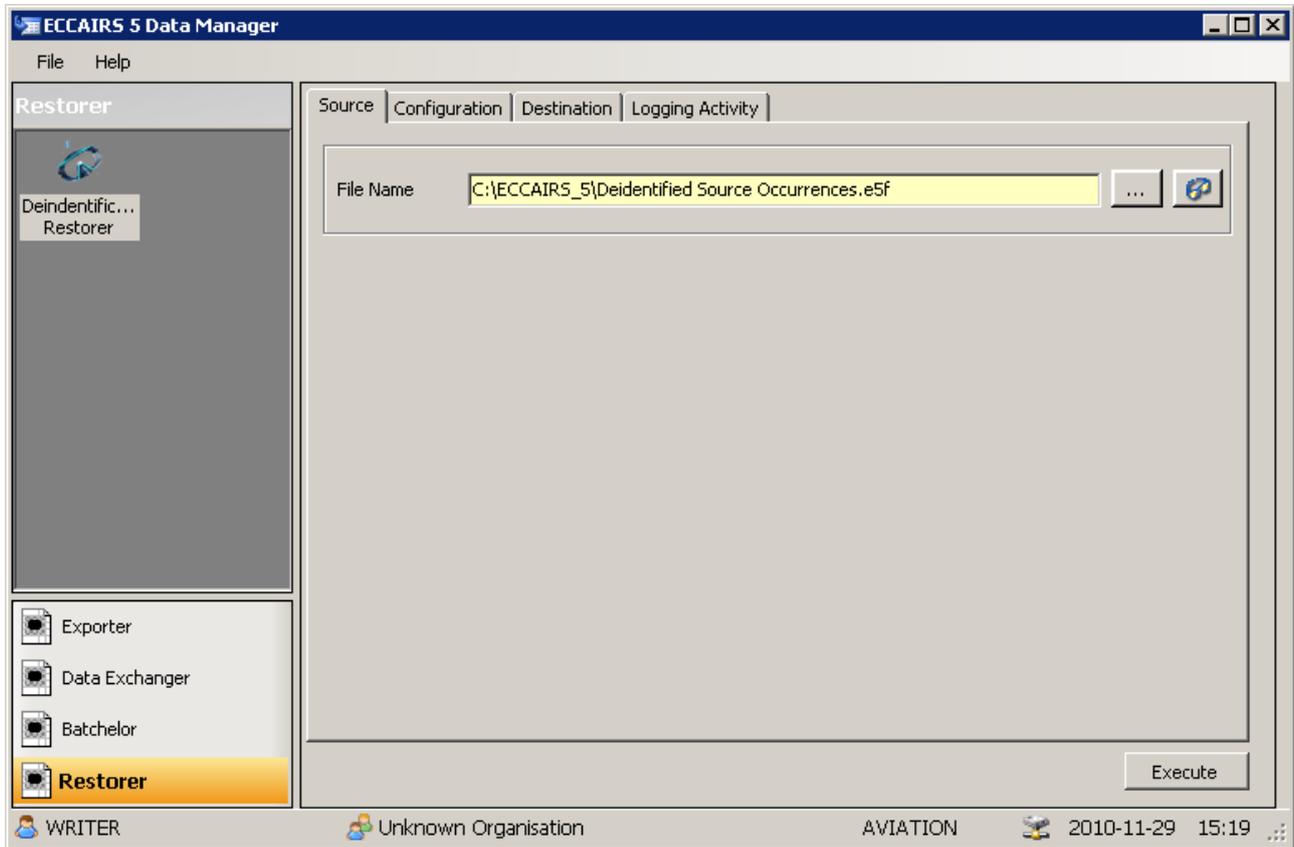
6.13.1. USING RESTORER

To restore de-identified Occurrences:

- ▶ Specify the De-Identified Source Occurrence file ([see page 231](#)).
- ▶ Specify the restored destination Occurrence file ([see page 233](#)).
- ▶ Set the options in the "Configuration" tab-panel ([see page 232](#)).
- ▶ Set the Logging options ([see page 234](#)).
- ▶ Execute the tool by clicking the "**Execute**" button.
- ▶ The tool displays a progress bar on the left of the "**Execute**" button.
- ▶ Once the task has been performed the system shows a result dialog with the count of the Occurrences processed successfully and those non processed for errors. Click the "**OK**" button to dismiss the dialog.
- ▶ Examine the log file, if needed.

6.13.2. RESTORER: FUNCTIONS AND TAB-PANELS

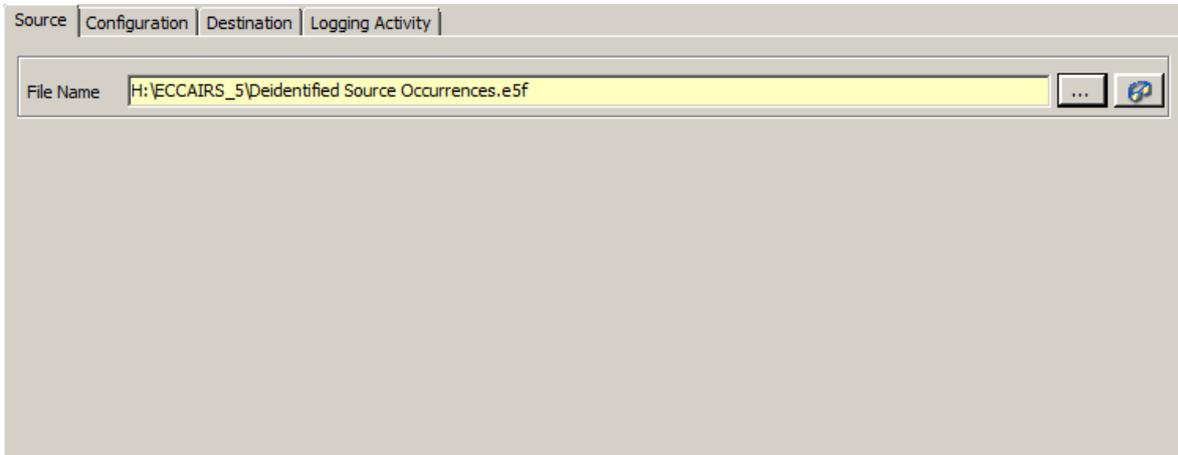
The Restorer tool includes four configuration tab-panels and the "Execute" button:



- ▶ **Configuration panel** - you can select and edit parameters in each panel by clicking on the corresponding upper tab:
 - **Source** - to specify the Occurrences to be processed.
 - **Configuration** - to specify processing options.
 - **Destination** - to set the destination for the restored Occurrences.
 - **Logging Activity** - to set up logging and its options.
- ▶ **Execute** button - click this button to start the De-Identified Occurrence restore process.

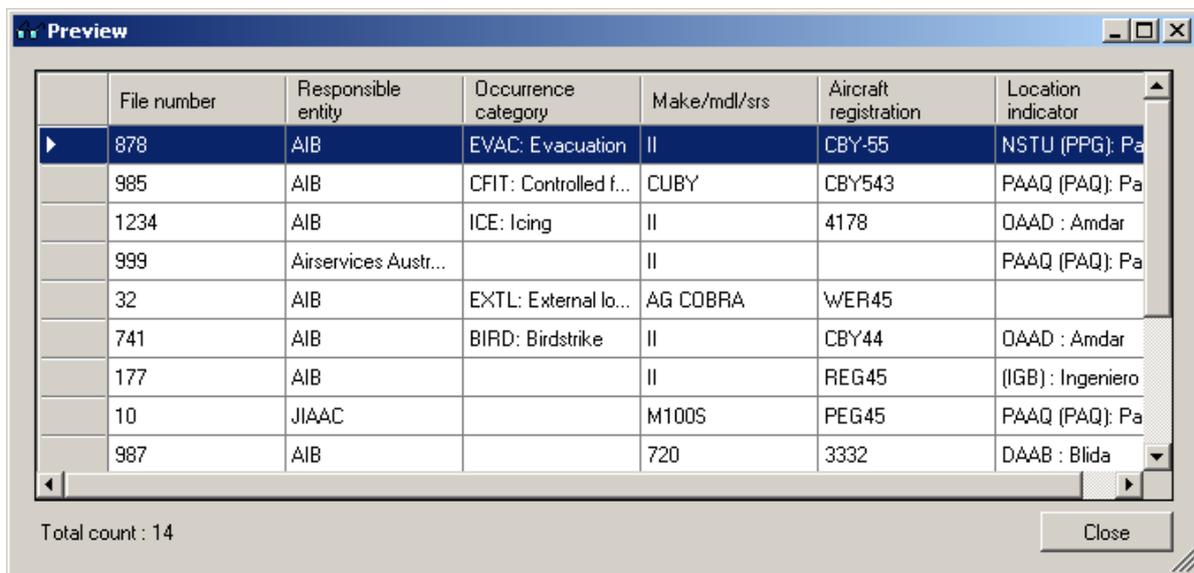
6.13.3. SOURCE TAB-PANEL

The "Source" tab-panel let you specify the file hosting the De-Identified Occurrences.



Panel items:

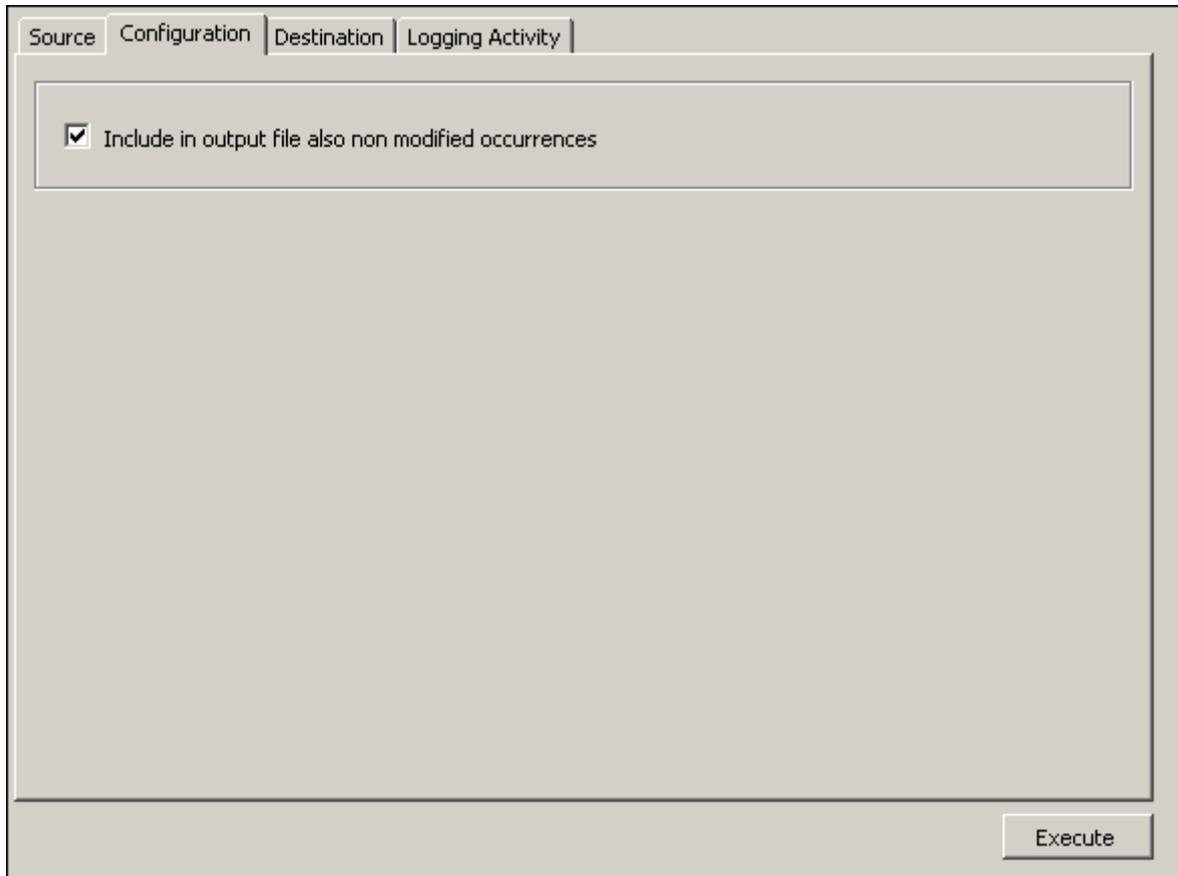
- ▶ **File Name** - click the "..." button at the right of this field to locate and specify the source Occurrence file name using the standard "Open" dialog.
- ▶ **Preview the Query result** - click the "glasses" icon-button at the right to display a "Preview" dialog.



The dialog displays the total count of Occurrences in the file and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User you have logged in. Click the "Close" button to exit the "Preview" dialog.

6.13.4. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you have to specify the identify restorer options in.

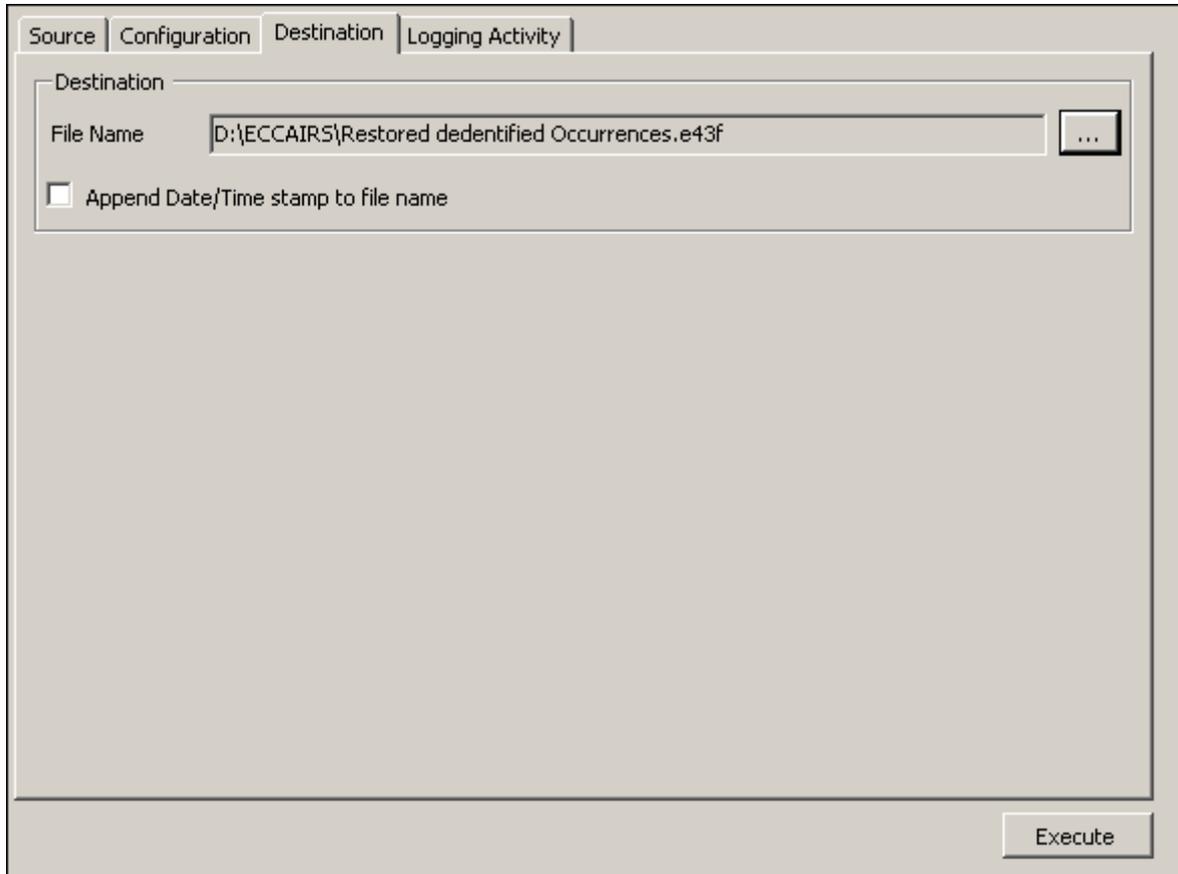


Panel items:

- ▶ **Include in Output File also Non Modified Occurrences** - choose this option to include in the output Occurrence file also the Occurrences that will not be modified by the identification restore action.

6.13.5. DESTINATION TAB-PANEL

The "Destination" tab-panel let you specify the destination file for the deidentified Occurrences to restore.

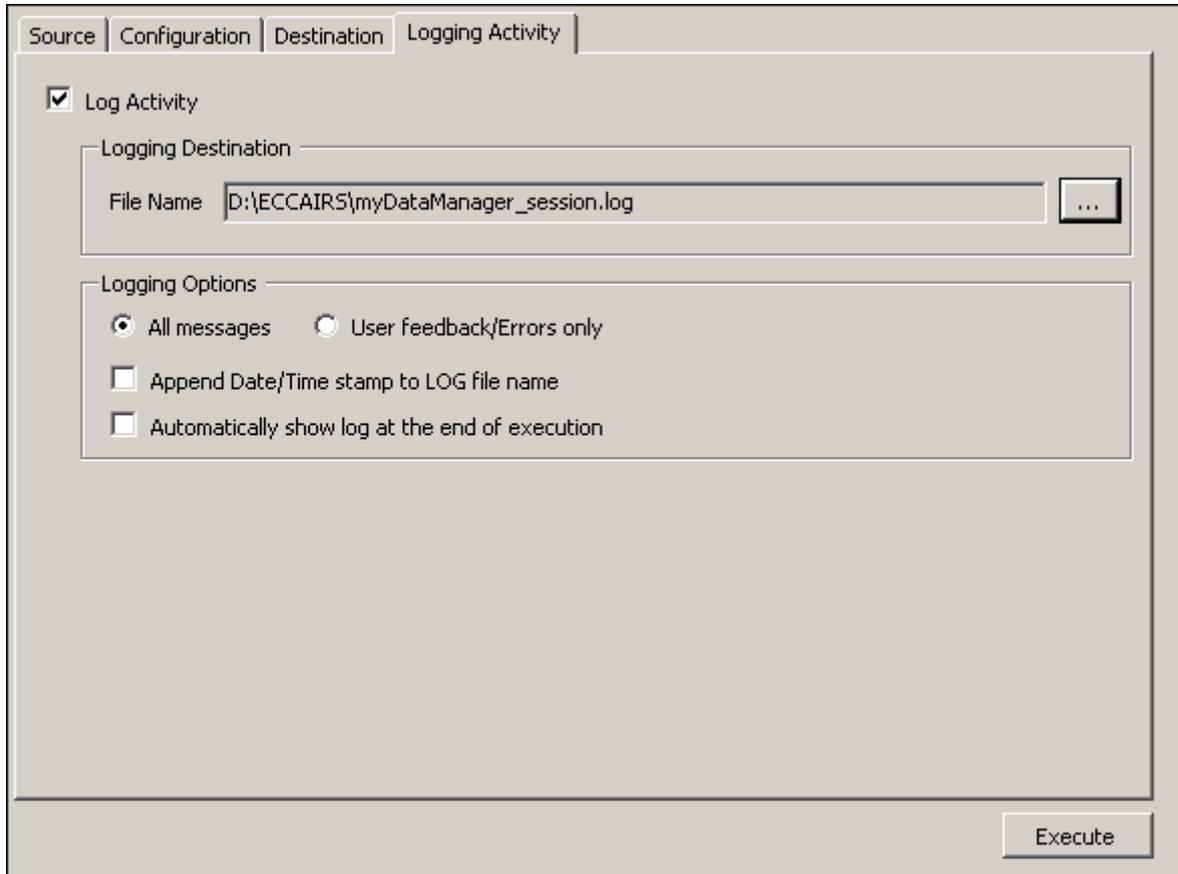


Panel items:

- ▶ **File Name** - click the "... " button at the right of this field to specify the destination file name and location using the standard "Save" dialog.
- ▶ **Append Date/Time stamp to file name** - choose this option to append a date and time stamp to the file name. For instance, if you choose "my restored file" as file name, then the actual export file name after the execution on Sept. 18th 2011 at 13:50 and 23 sec would be:
my restored file_18-09-2010 13-50-23.e5f

6.13.6. LOGGING ACTIVITY TAB-PANEL

The "Logging Activity" tab-panel let you enable/disable logging and specify its options.



You can create a log file every time you execute a Data Manager tool. You cannot append logging to an existing log file. The file will be overwritten on execution. This means that a log file contains log messages for a single Data Manager tool execution.

Panel items:

- ▶ **Log Activity** - choose this option to enable logging.
- ▶ **Logging Destination** section:
 - **File Name** - click the "..." button at the right of this field to specify the log file name and location using the standard "Save" dialog.
- ▶ **Logging Options** section:
 - **All messages / User feedback / Errors only** - specify whether the log file includes all messages or only User feedback and error messages.
 - **Append Date/Time stamp to LOG file name** - choose this option to append a date and time stamp to the log file name. For instance, if you choose "mylogfile" as file name, then the actual log file name after the execution on Sept. 18th 2011 at 13:50 and 23 sec would be:
mylogfile_18-09-2010 13-50-23.log
 - **Automatically show log at the end of executions** - choose this option to have Data Manager open the log file at the and of the execution.

6.14. DATA QUALITY TOOL

The Data Quality tool performs a quality check on Occurrences either from file or from a Query in the database. The quality is evaluated through a set of Rules stored in Rule Libraries.

To get more information follow these links:

- ▶ Using the Data Quality tool (see [page 235211](#)).
- ▶ Data Quality Functions and Tab-Panels ([see page 236](#)).

6.14.1. USING DATA QUALITY

The Data Quality tool evaluates the quality of a set of Occurrences by checking one or more Quality Rules.

Quality Rules are stored in Quality Rules Libraries.

Each Rule is expressed by one or more conditions that will be tested on each Occurrence selected for data quality evaluation.

Each condition is composed by a standard Query which have actions associated both to its fulfilment (i.e. condition is true) or non-fulfilment (i.e. condition is false). The actions may be:

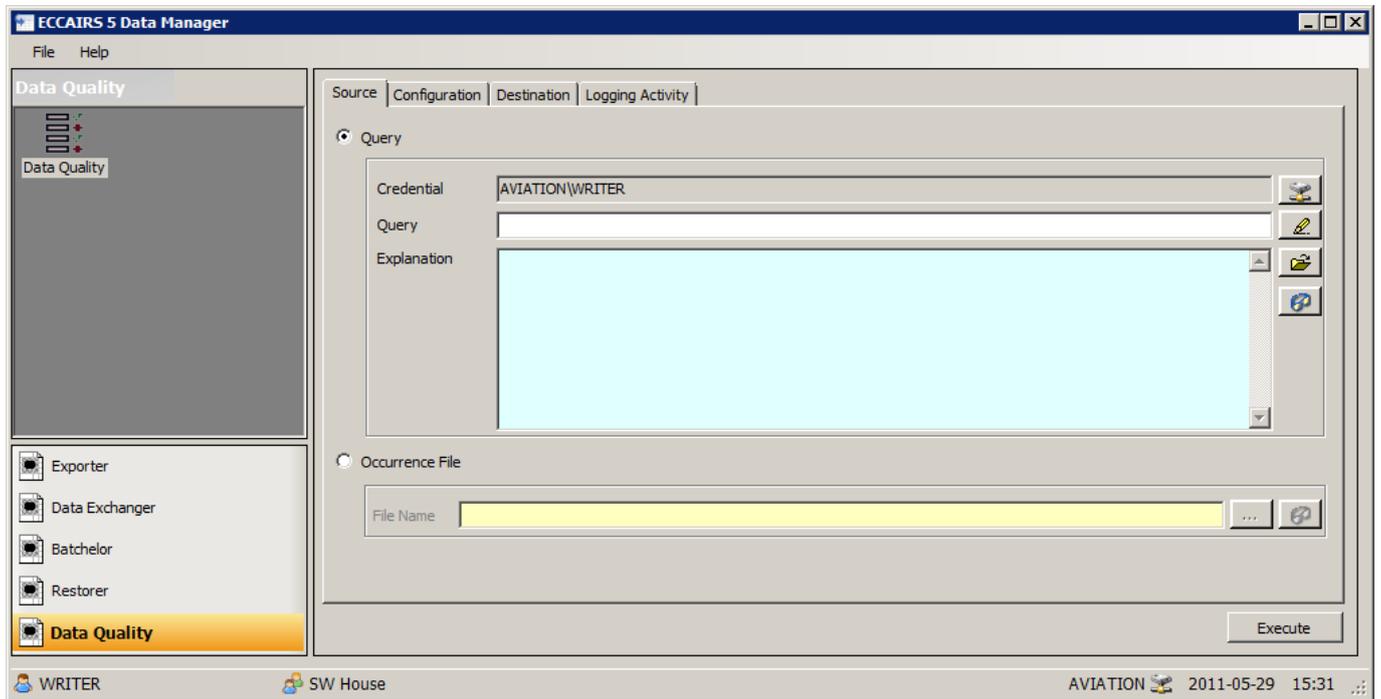
- ▶ messages to include in the result file-splitting.
- ▶ further "nested" conditions to evaluate.
- ▶ none.

The results of data quality processing is either a result file, including all the messages triggered by the conditions, or a statistics file, or both of them.

The general operating sequence to run the Data Quality tool is:

- ▶ Define the Occurrences to be exported in the "Source" tab-panel ([see page 237](#)).
- ▶ Define the result and/or statistics file names and location in the "Destination" tab-panel ([see page 242](#)).
- ▶ Manage Quality Rule Libraries and Quality Rules in the "Configuration" tab-panel ([see page 11](#)).
- ▶ Set the Quality Rules, with their conditions and related actions ([see page 245](#)).
- ▶ Set the Logging options ([see page 244](#)).
- ▶ Execute the tool by clicking the "**Execute**" button.
- ▶ The Result files, if any, are generated and the Data Quality results are displayed in the "Results" window that shows up ([see page 252](#)).
- ▶ Examine the log file, if needed.

6.14.2. DATA QUALITY: FUNCTIONS AND TAB-PANELS



The Data Quality tool includes four configuration tab-panels and the "Execute" button:

- ▶ **Configuration panel** - you can select and edit parameters in each panel by clicking on the corresponding upper tab:
 - **Source** - to specify the Occurrences to be processed.
 - **Configuration** - to specify the Quality Rules used to evaluate the Occurrence.
 - **Destination** - to select which result to display and where.
 - **Logging Activity** - to set up logging and its options.
- ▶ **Execute** button - to start the data Quality processing.

6.14.3. SOURCE TAB-PANEL

The "Source" tab-panel let you specify the Occurrences that the "Data Quality" tool will process. The Occurrences may be specified by an Occurrence file or by a Query in the database.

Source | Configuration | Destination | Logging Activity

Query

Credential: REPOSITORY\WRITER

Query: ei registration

Explanation: Find all Occurrences where
{ Aircraft registration {Occurrence/Aircraft} [Value] contains 'ei' }

Occurrence File

File Name: [Yellow field]

Execute

There are two sections in the "Source" tab-panel:

- ▶ **"Query" section**
- ▶ **"Occurrence File" section**

6.14.3.1. "QUERY" SECTION

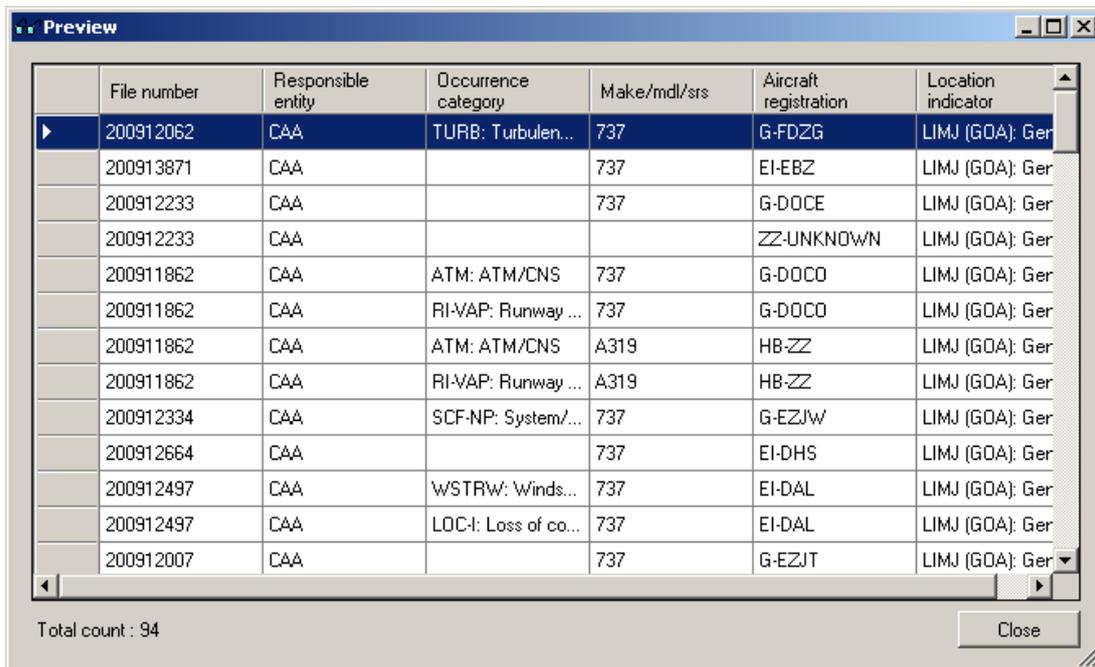
In the Query panel you specify the Query that will extract the Occurrences to be checked for Data Quality.

Panel items:

- ▶ **Credentials** - click the "connection" icon-button to display the ECCAIRS "Login" dialog where you can login to the Repository you wish with the suitable User.
- ▶ **Query** - the field shows either the name of the Query currently in use, if taken from a Query Library, of the generic text "(Query)" if the Query has been defined standalone on the spot (see below).

The icon-buttons on the right let you:

-  **Edit the Query** - click the "pencil" icon-button to display the "Query Editing" window ([see page 281](#)) that allow to:
 - Edit locally a Query already opened from a Query Library without the need to edit or define Queries using the Query Builder
 - Create and edit standalone Queries, i.e. not stored in a Query Library.
-  **Open a Query Library** - click the "open" icon-button to start the ECCAIRS Query Builder application that allows you access and define Query Libraries and Queries ([see page 257](#)).
-  **Preview the Query result** - click the "glasses" icon-button to display a "Preview" dialog.



The screenshot shows a window titled "Preview" containing a table with the following data:

File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
200912062	CAA	TURB: Turbulen...	737	G-FDZG	LIMJ (GOA): Ger
200913871	CAA		737	EI-EBZ	LIMJ (GOA): Ger
200912233	CAA		737	G-DOCE	LIMJ (GOA): Ger
200912233	CAA			ZZ-UNKNOWN	LIMJ (GOA): Ger
200911862	CAA	ATM: ATM/CNS	737	G-DOCO	LIMJ (GOA): Ger
200911862	CAA	RI-VAP: Runway ...	737	G-DOCO	LIMJ (GOA): Ger
200911862	CAA	ATM: ATM/CNS	A319	HB-ZZ	LIMJ (GOA): Ger
200911862	CAA	RI-VAP: Runway ...	A319	HB-ZZ	LIMJ (GOA): Ger
200912334	CAA	SCF-NP: System/...	737	G-EZJW	LIMJ (GOA): Ger
200912664	CAA		737	EI-DHS	LIMJ (GOA): Ger
200912497	CAA	WSTRW: Winds...	737	EI-DAL	LIMJ (GOA): Ger
200912497	CAA	LOC-I: Loss of co...	737	EI-DAL	LIMJ (GOA): Ger
200912007	CAA		737	G-EZJT	LIMJ (GOA): Ger

At the bottom of the dialog, it says "Total count : 94" and has a "Close" button.

The dialog displays the total count of Occurrences matching the Query and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User that you have logged in.

Click the "Close" button to exit the "Preview" .

- ▶ **Explanation** - the explanation of the Query currently in use.

6.14.3.2. "OCCURRENCE FILE" SECTION

If you select this option you have to specify in the "Occurrence File".

Panel items:

- ▶ **File Name** - click the "... " button at the right of this field to locate and specify the Occurrence file name using the standard "Open" dialog.
- ▶ **Preview the Query result** - if you click the "glasses" icon-button at the right to display a "Preview" dialog.

File number	Responsible entity	Occurrence category	Make/mdl/srs	Aircraft registration	Location indicator
878	AIB	EVAC: Evacuation	II	CBY-55	NSTU (PPG): Pa
985	AIB	CFIT: Controlled f...	CUBY	CBY543	PAAQ (PAQ): Pa
1234	AIB	ICE: Icing	II	4178	OAAD : Amdar
999	Airservices Austr...		II		PAAQ (PAQ): Pa
32	AIB	EXTL: External lo...	AG COBRA	WER45	
741	AIB	BIRD: Birdstrike	II	CBY44	OAAD : Amdar
177	AIB		II	REG45	(IGB) : Ingeniero
10	JIAAC		M100S	PEG45	PAAQ (PAQ): Pa
987	AIB		720	3332	DAAB : Blida

Total count : 14

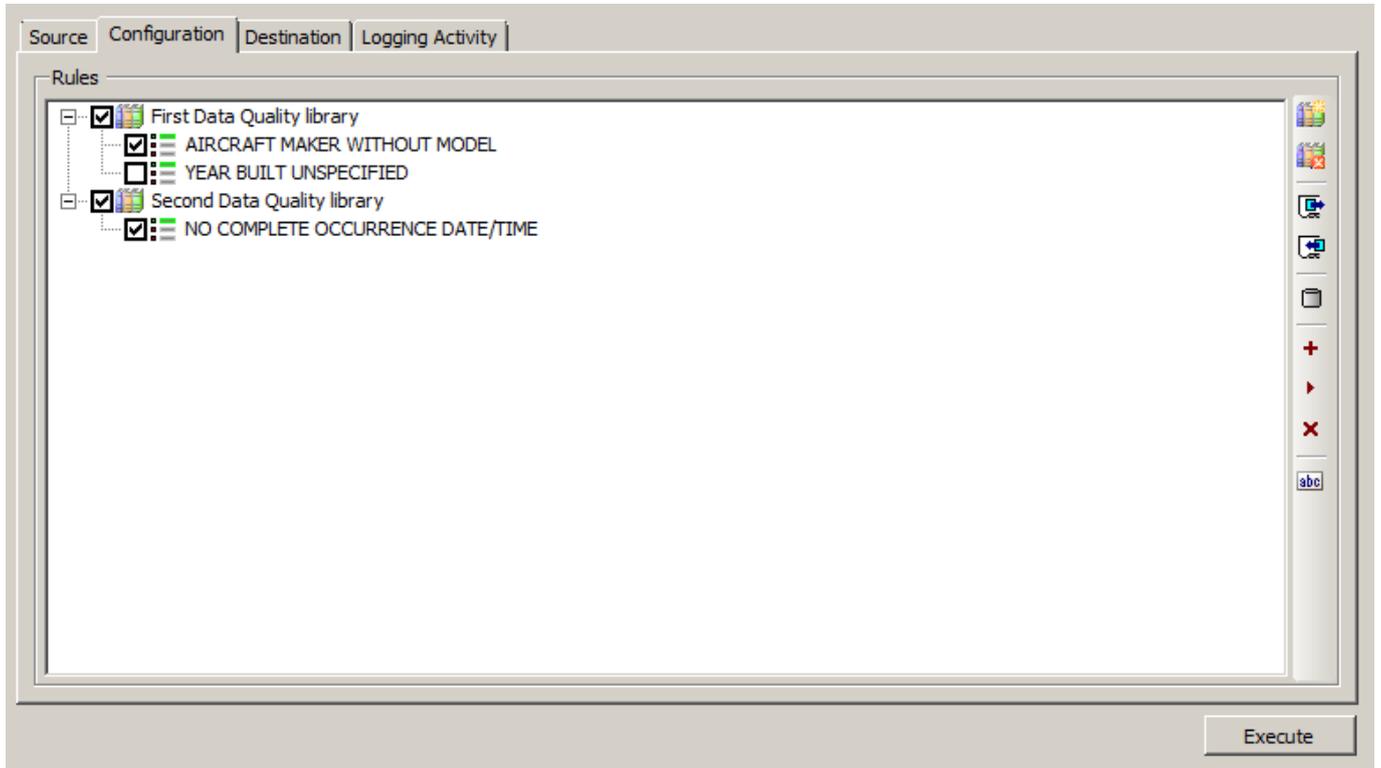
Close

The dialog displays the total count of Occurrences in the file and the list of these Occurrences, each with some Attributes displayed (as in the "Occurrence List" panel in the Browser). The Attributes displayed are specified in the Repository and Role/User that you have logged in. Click the **Close** button to exit the "Preview" .

6.14.4. CONFIGURATION TAB-PANEL

The "Configuration" tab-panel let you specify the rules that the Data Quality tool must evaluate on the source Occurrences specified in the "Source" tab-panel.

Quality Rules are stored in Quality Rules Libraries. The panel lists the existing Quality Rules Libraries, each with its Rules listed below.

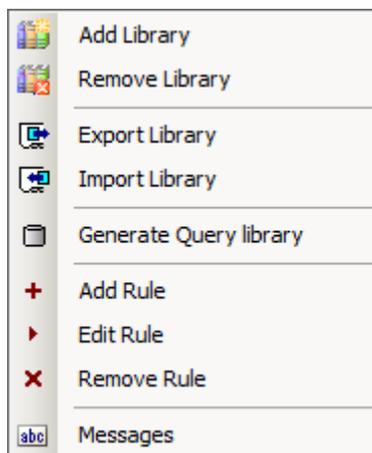


When you perform the Data Quality evaluation, by clicking on the "Execute" button, only the Rules that have been checked in the panel will be evaluated

By default all the Rules of all the Libraries are selected.

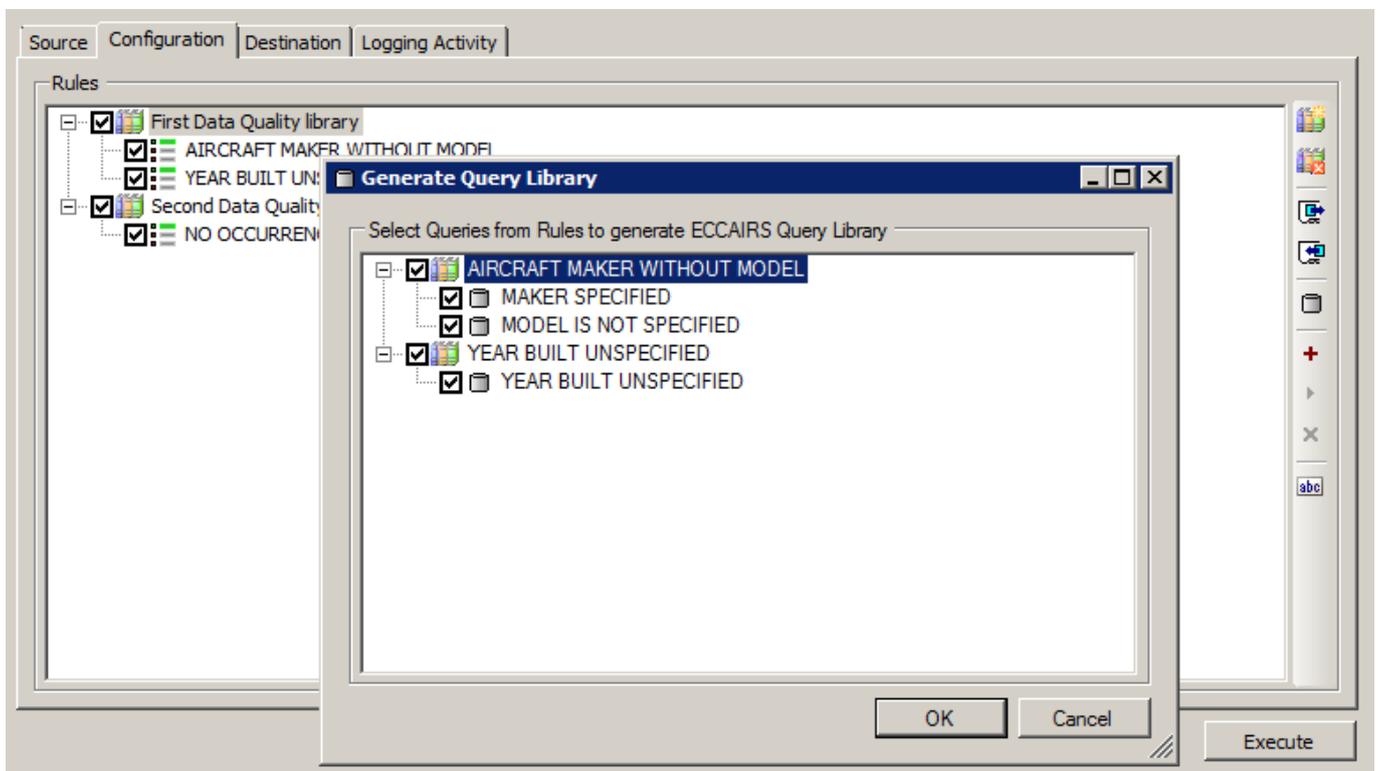
By selecting/deselecting either the whole Library or any of its Rules you can choose which Quality Rules will be actually evaluated.

Using the icon-buttons on the right, or the equivalent Right-click menu-items, you can operate on Library Rules and Rules themselves.



Menu items/icon-button items:

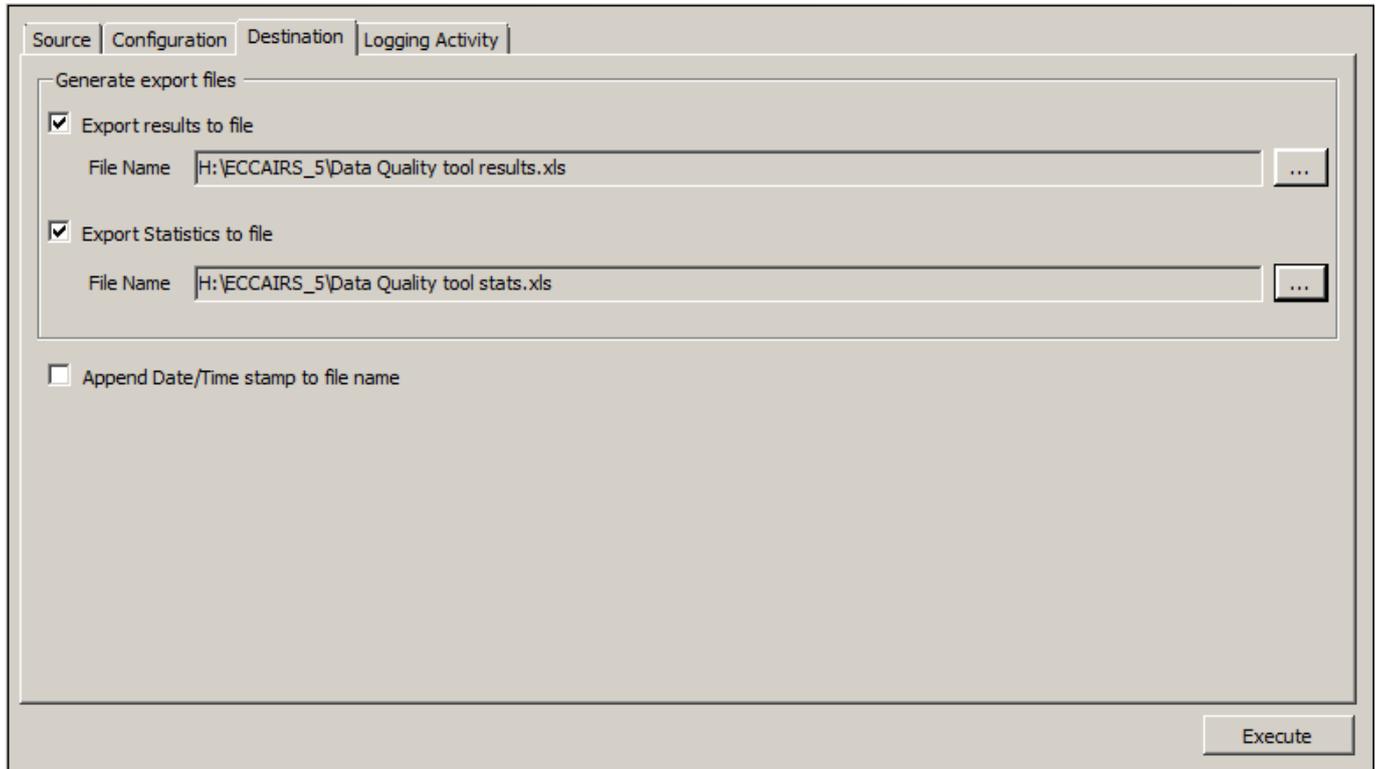
- ▶ **Add Library** - to add a new Quality Rule Library.
- ▶ **Remove Library** - to remove the Rule Library selected in the panel.
- ▶ **Export/Import Library** - to export/import Data Quality Rule Libraries.
The Libraries are saved in "ECCAIRS 5 Data Quality Library" format (*.edq).
- ▶ **Generate Query Library** - to generate a Query Library including any of the Queries making up the Rules in the Rule Library selected in the panel.
A "Generate Query Library" dialog shows up and let you select which of the Queries making up the conditions used in the Data Quality Rules you wish to save into a new ECCAIRS Query Library.
The Query Library including the Queries that you have selected are saved in "ECCAIRS Query Library format" (*.eq).



- ▶ **Add a Rule** - to add a new Data Quality Rule to the Library selected in the panel.
A "Configure Role" dialog window shows up and there you can specify the Rule ([see page 245](#)).
- ▶ **Edit a Rule** - to edit the Data Quality Rule selected in the panel.
A "Configure Role" dialog window shows up and there you can modify the Rule ([see page 245](#)).
- ▶ **Remove a Rule** - to remove the Data Quality Rule selected from its Library.
- ▶ **Messages** - to add/edit/remove the messages triggered by conditions used to express a Quality Rule.
The "Messages" dialog that shows up let you manage the messages associated with the Quality Rule Library currently selected ([see page 249](#)).

6.14.5. DESTINATION TAB-PANEL

The "Destination" tab-panel let you specify let you specify the destination file for the Data Quality results and statistics

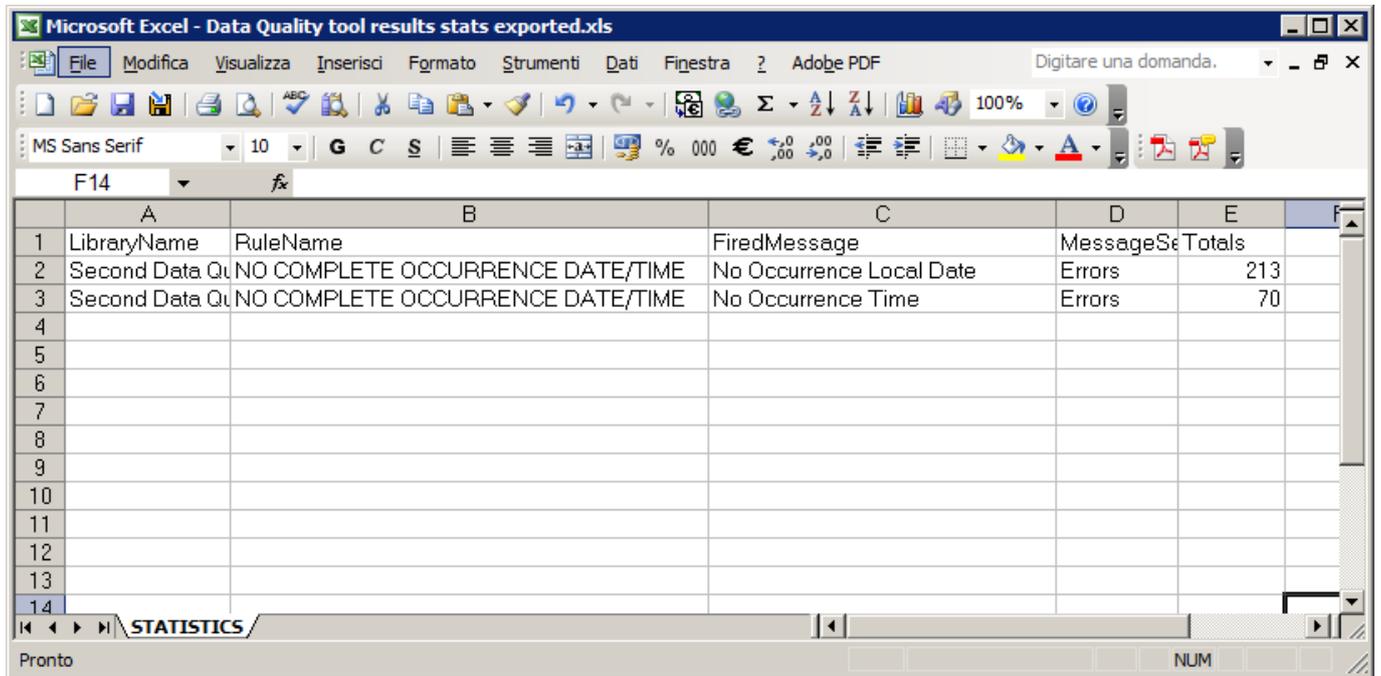


Panel items:

- ▶ **Export Results to file** - click the "..." button at the right of this field to specify the quality check result file name and location using the standard "Save" dialog. The Results are saved in an Excel worksheet format file (*.xls) that contains the same information as that displayed in the "Results" window at the end of the Quality Check process ([see page 252](#)).

A1	ECCAIRNUMBER									
	A	B	C	D	E	F	G	H	I	J
	ECCAIRNUMBER	RESPONSIBLEENTITY	CheckResult	LibraryName	RuleName	FiredMessage	AttributeVal	MessageSeverity	ConditionName	
1	75006010	Saudi Arabia (CAA)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
2	75006010	Saudi Arabia (CAA)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is satisfied. Further conditions will be checked	Information		OCCURRENCE DATE BUT...		
3	75006010	Saudi Arabia (CAA)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
4	75006010	Saudi Arabia (CAA)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		OCCURRENCE DATE BUT...		
5	74014200	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
6	74014200	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is satisfied. Further conditions will be checked	Information		OCCURRENCE DATE BUT...		
7	74014200	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
8	75005010	United Kingdom (AAIB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
9	75005010	United Kingdom (AAIB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is satisfied. Further conditions will be checked	Information		OCCURRENCE DATE BUT...		
10	75005010	United Kingdom (AAIB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
11	74013090	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
12	74013090	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is satisfied. Further conditions will be checked	Information		OCCURRENCE DATE BUT...		
13	74013090	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
14	75004440	Australia (ATSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
15	75004440	Australia (ATSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is satisfied. Further conditions will be checked	Information		OCCURRENCE DATE BUT...		
16	75004440	Australia (ATSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
17	75005020	Algeria (AIB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
18	75005020	Algeria (AIB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is satisfied. Further conditions will be checked	Information		OCCURRENCE DATE BUT...		
19	75005020	Algeria (AIB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
20	75005090	United Kingdom (AAIB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
21	75005090	United Kingdom (AAIB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is satisfied. Further conditions will be checked	Information		OCCURRENCE DATE BUT...		
22	75005090	United Kingdom (AAIB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
23	75006370	Not applicable	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
24	75006370	Not applicable	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is satisfied. Further conditions will be checked	Information		OCCURRENCE DATE BUT...		
25	75006370	Not applicable	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
26	74013690	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
27	74013690	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is satisfied. Further conditions will be checked	Information		OCCURRENCE DATE BUT...		
28	74013690	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
29	prova2046646633	Lesotho (AIB)	Errors	Second Data Quality library	NO COMPLETE OCCURRENCE (No Occurrence Local Date	Errors		NO OCCURRENCE DATE		
30	prova2046646633	Lesotho (AIB)	Errors	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		OCCURRENCE DATE BUT...		
31	75010450	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
32	75010450	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is satisfied. Further conditions will be checked	Information		OCCURRENCE DATE BUT...		
33	75010450	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		
34	6/2011	Botswana (AIB)	Errors	Second Data Quality library	NO COMPLETE OCCURRENCE (No Occurrence Local Date	Errors		NO OCCURRENCE DATE		
35	6/2011	Botswana (AIB)	Errors	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		OCCURRENCE DATE BUT...		
36	74014310	United States (NTSB)	Information	Second Data Quality library	NO COMPLETE OCCURRENCE (Condition is not satisfied. No Action will be performed	Information		NO OCCURRENCE DATE		

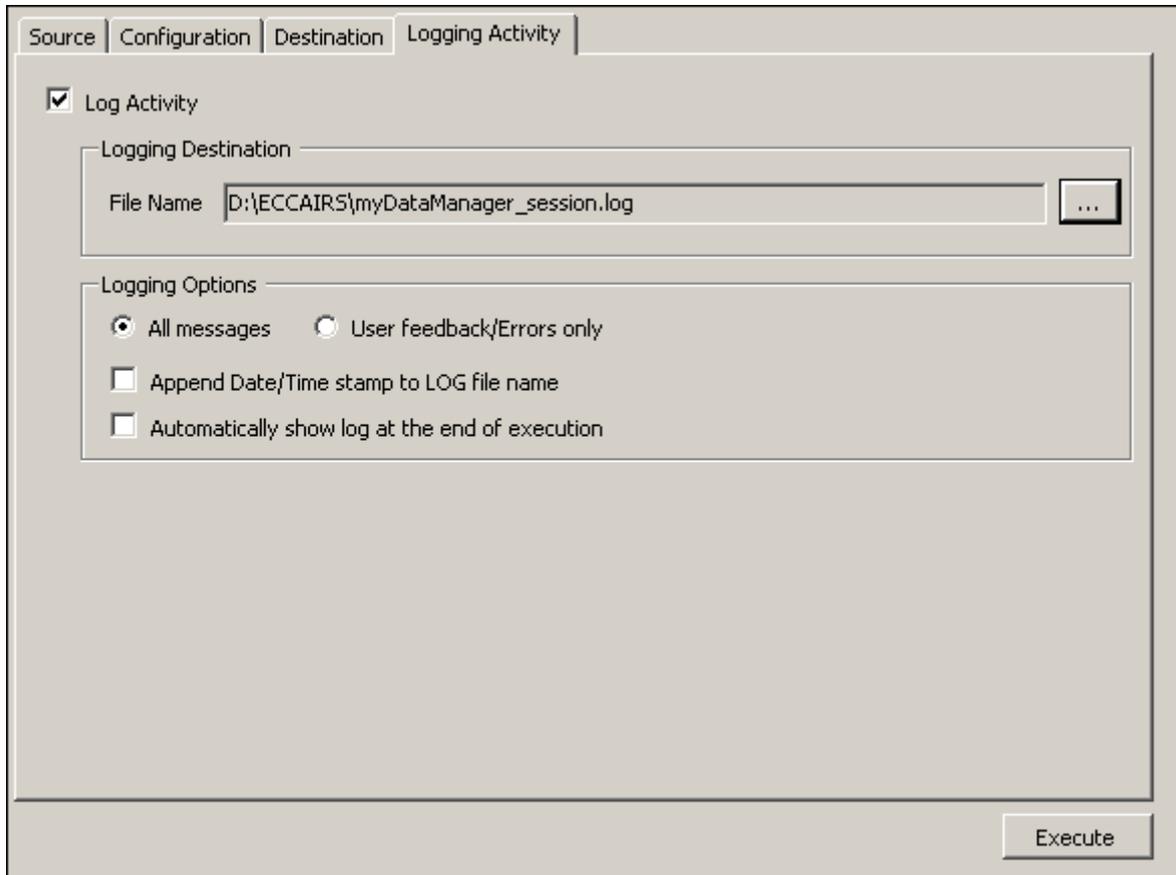
- ▶ **Export Statistics to file** - click the "..." button at the right of this field to specify the quality check statistics file name and location using the standard "Save" dialog. The Statistics are saved in an Excel worksheet (*.xls) format file that contains the same information as that displayed in the "Statistics" window, which is accessible through the "Results" window at the end of the Quality Check process ([see page 252](#)). Note that if you have not specified the Statistics file name at this stage in the "Export Statistics to file" field, you will still be able to generate the Statistics Excel file at the end of the processing from the "Statistics" window ([see page 254](#)).



- ▶ **Append Date/Time stamp to file name** - choose this option to append a date and time stamp to the file name. For instance, if you choose "my export file" as file name with an "Excel Worksheet" export function, then the actual export file name after the execution on Sept. 18th 2011 at 13:50 and 23 sec would be:
my export file_18-09-2011 13-50-23.xls

6.14.6. LOGGING ACTIVITY TAB-PANEL

The "Logging Activity" tab-panel let you enable/disable logging and specify its options.



You can create a log file every time you execute a Data Manager tool. You cannot append logging to an existing log file. The file will be overwritten on execution.

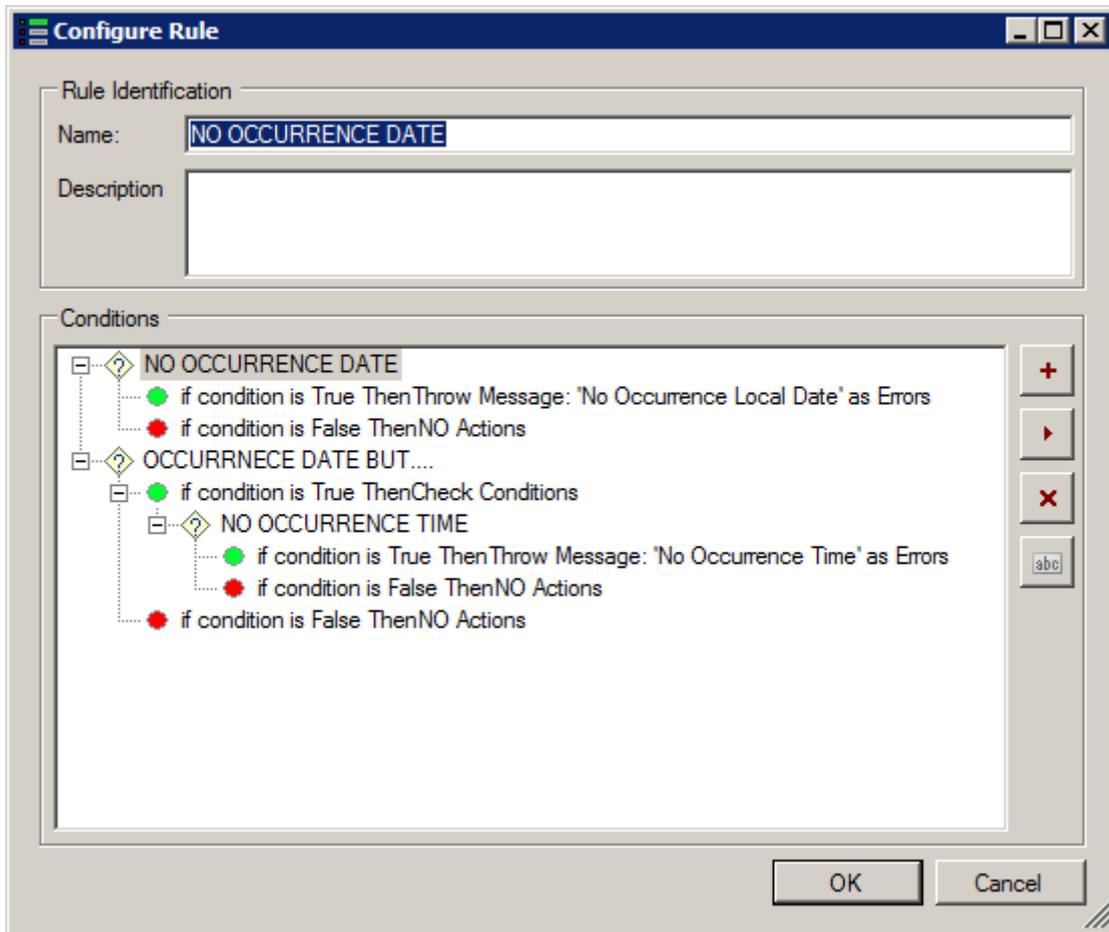
This means that a log file contains log messages for every single Data Manager tool execution.

Panel items:

- ▶ **Log Activity** - choose this option to enable logging.
- ▶ **Logging Destination** -section:
 - **File Name** - click the "..." button at the right of this field to specify the log file name and location using the standard "Save" dialog.
- ▶ **Logging Options** section:
 - **All messages / User feedback / Errors only** - specify whether the log file includes all messages or only User feedback and error messages.
 - **Append Date/Time stamp to LOG file name** - choose this option to append a date and time stamp to the log file name. For instance, if you choose "mylogfile" as file name, then the actual log file name after the execution on Sept. 18th 2011 at 13:50 and 23 sec would be:
mylogfile_18-09-2010 13-50-23.log
 - **Automatically show log at the end of executions** - choose this option to have Data Manager open the log file at the end of the execution.

6.14.7. EDITING QUALITY CHECK RULES

You create or edit a Data Quality Rule using the "Configure Rule" dialog.



A Quality Rule is composed by one or more Conditions. All the Conditions will be evaluated sequentially. This window displays all the Conditions set.

Each condition has two child nodes:

- ▶ **Condition True** - ● the action that will be performed when the Condition is met.
- ▶ **Condition False** - ● the action that will be performed when the Condition is not met

You can define sub-conditions., i.e. a condition that will be checked only if its parent Condition is met (or not met). This way you may spare useless Conditions processing, since checking Rules/Conditions may be quite a demanding task, especially when operating on a large set of source Occurrences.

If you need to enable/disable singles Conditions on the spot, then it may be convenient to defines Rules with a single condition in it, since only a whole Rule can be enabled/disabled while Conditions in a Rule not.

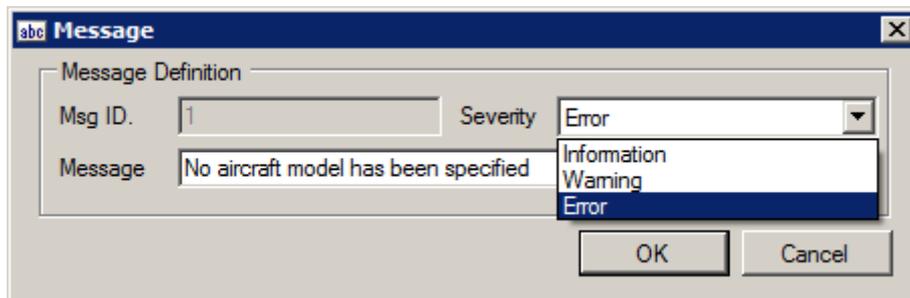
Dialog items:

▶ **Rule Identification section:**

- **Name**- (mandatory) the name assigned to the Rule. This is the name that will be displayed in the "Configuration" tab-panel.
- **Description** - a description for the Rule.

▶ **Conditions section:**

- **Add Condition** - to add a Condition to the Rule.
In the "Condition" dialog window that shows up you can define the Condition ([see page 247](#)).
- **Edit Condition** - to edit the selected Condition.
In the "Condition" dialog window that shows up you can edit the Condition ([see page 247](#)).
- **Remove Condition** - to remove the selected Condition ..Beware that no confirmation is requested.
If you remove a Condition by mistake, exit the "Configure Rule" dialog using the "Cancel" button, so that all modifications made to the Rule will be discarded.
- **Messages** - to edit the message selected.
This opens a "Message" dialog where you can edit the message text and its severity level associated (Information/Warning/Error).



To exit click:

- ▶ **OK** - to accept the editing done and close the dialog.
- ▶ **Cancel** - to discard the editing done.

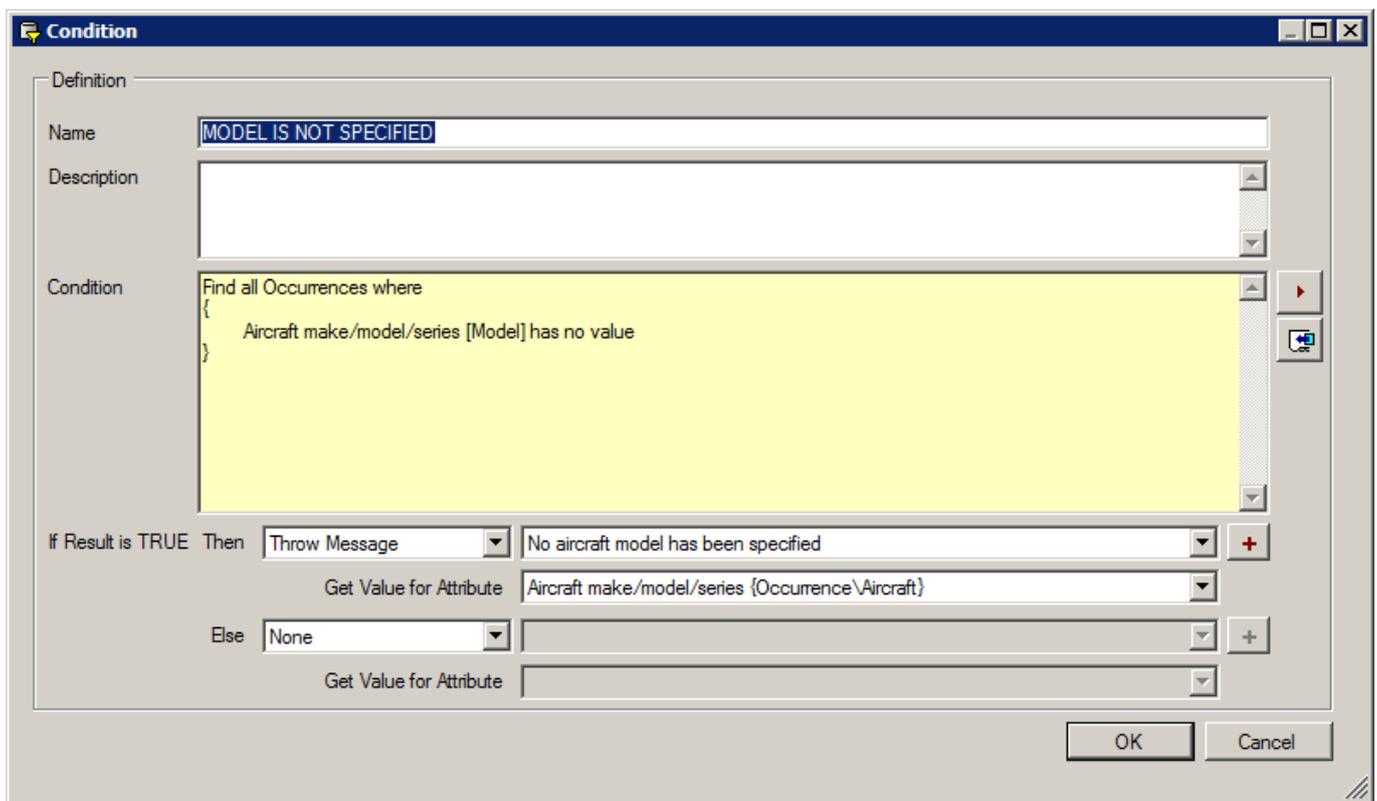
6.14.8. EDITING CONDITIONS IN A DATA QUALITY RULE

You create or edit a Condition for a Rule using the "Condition" dialog.

A Condition for a Quality Rule is made up by:

- ▶ A standard ECCAIRS Query, evaluated on each Occurrence to be checked. The evaluation yields a True/False result.
- ▶ The action that is triggered when the Query result is True and the action that is triggered when the Query result is False.

You can define sub-conditions., i.e. a condition that will be checked only if its parent Condition is met (or not met). This way you may spare useless Conditions processing, since checking Rules/Conditions may be quite a demanding task, especially when operating on a large set of source Occurrences.



Dialog items:

- ▶ **Name** - (mandatory) the name assigned to the Condition. This is the name that will be displayed in the "Configure Rule" dialog.
- ▶ **Description** - a description for the Rule.
- ▶ **Condition** - the Query defining the Condition. To enter the Query you can use the two buttons on the right.
 - **Create/Edit Query** - to create a new or edit the selected Condition. The standard " Query Editing" window of the "Query Builder" is displayed ([see page 281](#)).
 - **Import Query** - to import a Query from an existing Query Library. The "Import Query from Library" dialog shows up.

In the "Import Query from Library" dialog you can open a Query Library and select the Query to be imported and used in the Condition.

- ▶ **If Result is TRUE** - the Query defining the Condition.
To enter the Query you can use the two buttons on the right.
 - **Then** - the action that will be performed when the Condition is met.
 - **Else** - the action that will be performed when the Condition is not met.

For both cases you can choose among three actions

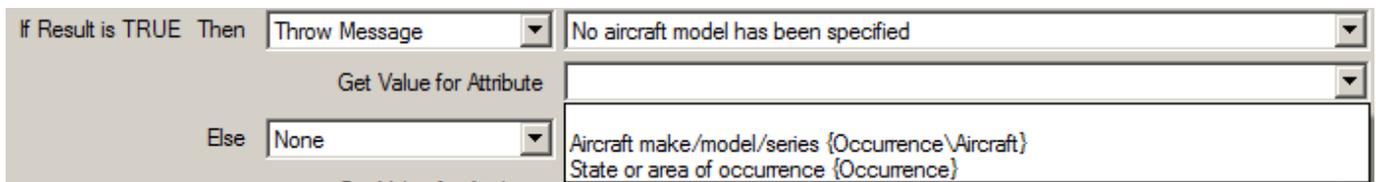
- **None** - no action.
- **Check Condition** - allow for sub-conditions., i.e. a condition that will be checked only if its parent Condition is met (or not met).
- **Throw Message** - append (write) a message to the Data Quality Result file.
In this case you can either:

- **Select an existing message** - from the drop-down message list.



- **Add a new message.**
In the "Message" dialog shows up you can define a new message ([see page 251 below](#)).

In both cases you can choose to append to the Result file also the Value of any of the Attributes involved in the criteria making up the Condition Query.

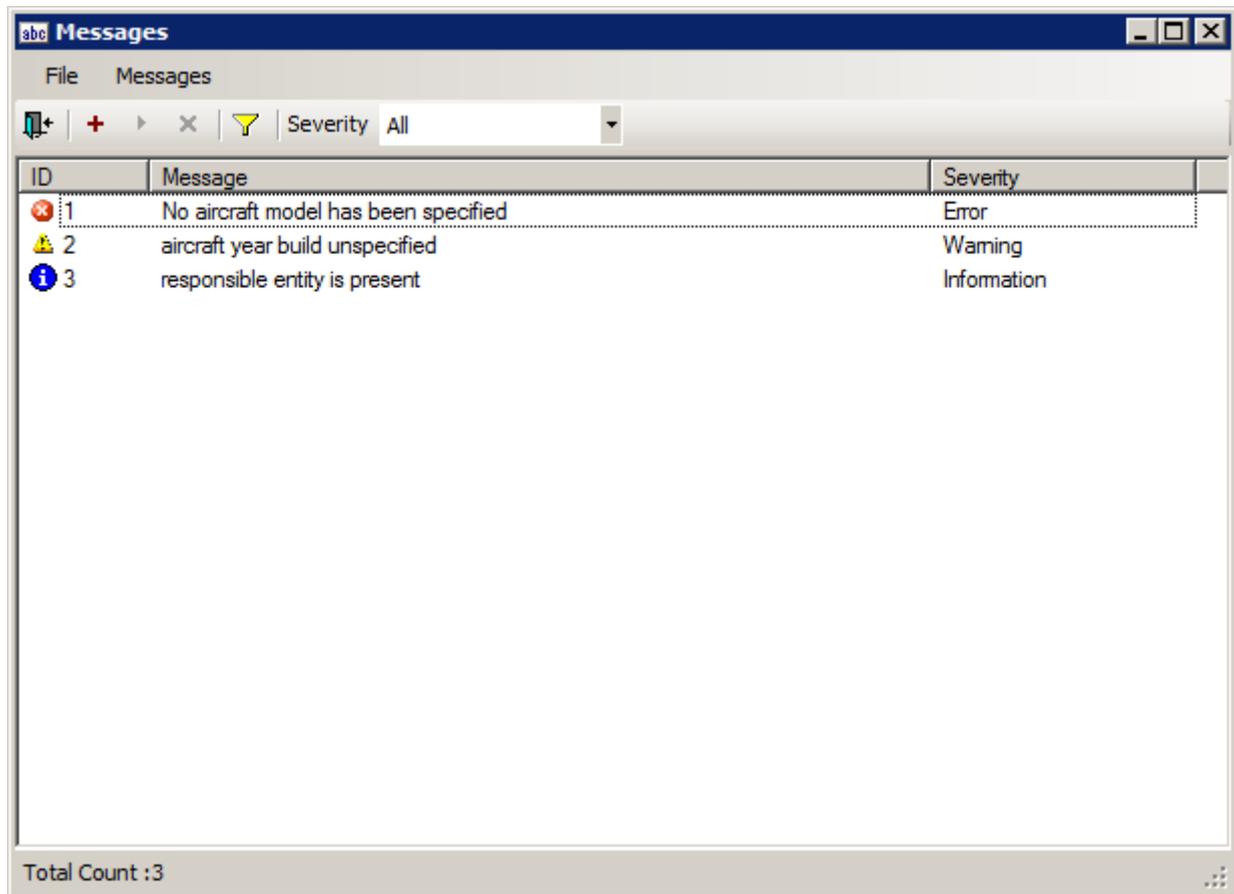


To exit the "Condition" dialog click:

- ▶ **OK** - to accept the editing done and close the dialog.
- ▶ **Cancel** - to discard the editing done.

6.14.9. MANAGE MESSAGES IN A QUALITY RULE LIBRARY

The "Messages" dialog let you manage the messages associated with the Quality Rule Library currently selected in the "Configuration" Tab-panel ([see page 240](#)).



Dialog items:

- ▶ **Message list panel** - the large central panel lists all the messages associated with the Quality Rule Library.

Each message is listed along with its properties:

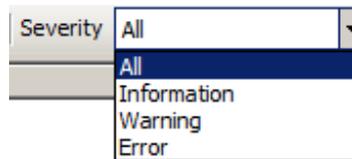
- **Msg. ID** - the unique message identifier.
- **Severity** - a quality category, chosen among: Information, Warning and Error. These can be used as filters when viewing the Data Quality check results.
- **Message** - the text of the message.

You can edit the message by selecting a message in the list and then either:

- **double-click** on it
- select "**Right-click > Edit**" menu-item.
- select "**Messages > Edit**" menu-item.
- click the "**Edit**" icon-button in the Toolbar.

When editing a message you use the "Message" dialog that shows up ([see page 251](#)).

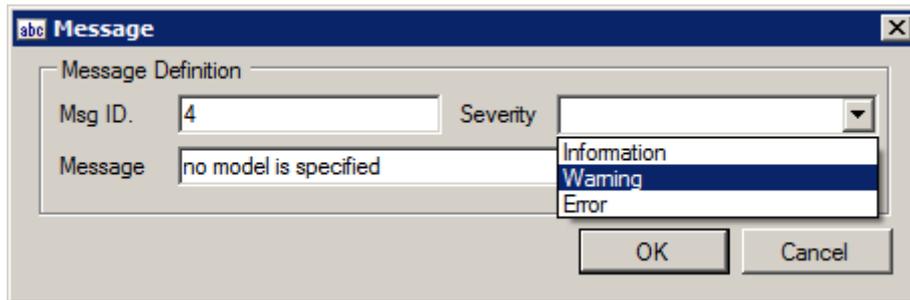
- ▶ **Status bar** - on the bottom, displays the "Total Count", i.e. the number of messages currently associated with the Quality Rule Library
- ▶ **File menu** - in the Menu bar, with the following menu items:
 - **Export** - exports a Message file (*.msg) containing all the information about the messages.
 - **Import** - imports a Message file (*.msg), previously exported with the function above.
 - **Close** - closes the "Messages" dialog.
- ▶ **Messages menu** - in the Menu bar, with the following menu items:
 - **Add** - adds a new Message. The "Message" dialog shows up.
 - **Edit** - edits the selected Message. The "Message" dialog shows up.
 - **Remove** - removes the selected Message.
- ▶ **Toolbar** - with the following icon-buttons:
 - **Close** - same as "File > Close" menu-item.
 - **Add** - same as "Messages > Add" menu-item.
 - **Edit** - same as "Messages > Edit" menu-item.
 - **Remove** - same as "File > Close" menu-item.
 - **Filter** - displays only the Messages that match the text string that you type in.
 - **Severity** - displays only the Messages that match the Severity level that you select with the drop-down list.



6.14.10. CREATE OR EDIT QUALITY CHECK MESSAGES

You create a message using the "Message" dialog that shows up when either:

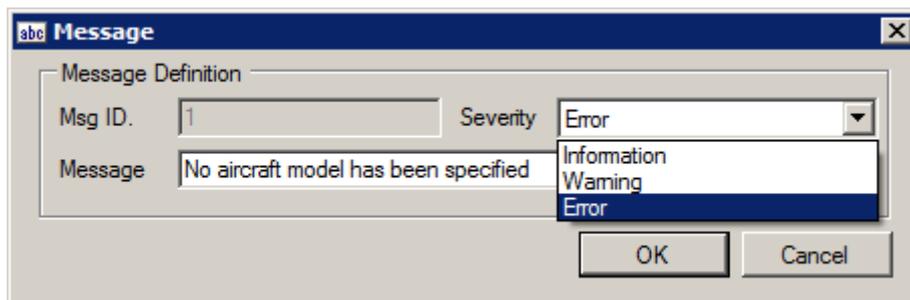
- ▶ you create or edit a Condition for a Quality Rule using the "Condition" dialog and you select "Throw Message > Add a new message" in the "If Result is TRUE" Section ([see page 247](#)).
- ▶ you select a Quality Rule Library in the "Configuration" Tab-panel and then select the "Right-click > Messages" menu-item to manage the messages associated with the Quality Rule Library itself ([see page 240](#)).



Dialog items:

- ▶ **Msg. ID** - the unique message identifier. If you try to assign an ID already in use, the system will warn you so.
- ▶ **Severity** - a quality category, chosen among: Information, Warning and Error. These can be used as filters when viewing the Data Quality check results.
- ▶ **Message** - the text of the message.

When you edit an existing message, e.g. from the "Configure Rule" dialog window, you can only modify its "Severity" and the message text, not the Msg. ID.

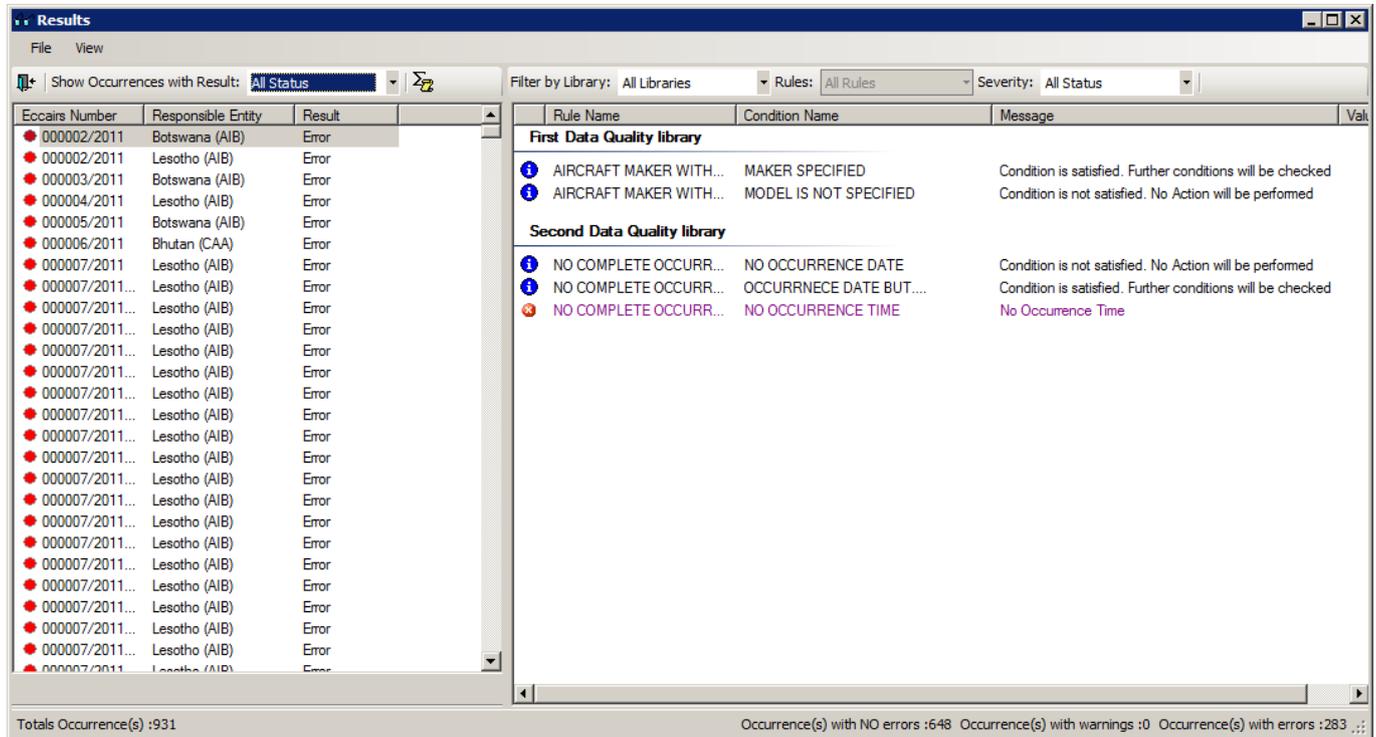


To exit click:

- ▶ **OK** - to accept the editing done and close the dialog.
- ▶ **Cancel** - to discard the editing done.

6.14.11. READING RESULTS OF THE DATA QUALITY CHECK

Once the Quality Check process is completed, the Results window shows up .
 The Results window is the window which shows all the results of the Quality Check process.

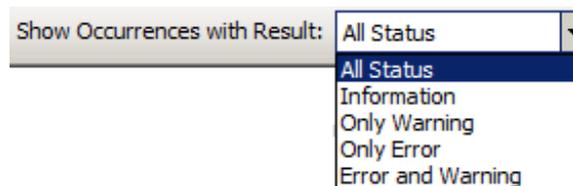


Dialog items:

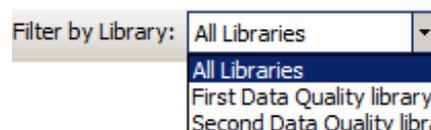
► **Panels:**

- **List of the Occurrences evaluated** - in the left panel.
 Each Occurrence line displays:
 - **Set of Identifier Attributes** - the Special Attributes, according to the specific Taxonomy in use, that identifies the Occurrence.
 For instance, in the Aviation domain (the sample picture shown above), the Attributes displayed are: State File Number and State Reporting.
 - **Result** - the result is determined by the condition with the highest Severity Level for that occurrence.
 Let's say, for example, that 20 conditions have been evaluated on a certain occurrence, 19 with Information level and 1 with Warning level.
 The overall Result will be Warning.
- **Rules (and their Conditions) evaluated** - in the right panel.
 In addition to the Rules and their Conditions that have been evaluated, the panel also shows the Messages thrown and the Value(s) of the selected Attribute. If more than one Value is present for the Attribute, clicking on the button will show all the values.

- ▶ **Status bar** - on the bottom, displays:
 - **Total Occurrences** - (number) the total number of Occurrence that have been evaluated.
 - **Occurrence with** - a line with partial counts:
 - **No errors** - (number) the count of Occurrences without Error or Warning messages.
 - **Warning** - (number) the count of Occurrences with Warning messages (as highest Severity Level).
 - **Errors** - (number) the count of Occurrences with Error messages (as highest Severity Level).
- ▶ **File menu** - in the Menu bar on the top, with the following menus:
 - **Export Results** - exports the Results in an Excel format file (*.xls), as it happens when specifying the Result file in the Destination tab-panel..
 - **Export Statistics** - exports the Result Statistics in an Excel format file (*.xls), as it happens when specifying the Statistics file in the Destination tab-panel..
 - **Close** - closes the "Results" dialog.
- ▶ **View menu** - in the Menu bar on the top, with the following menus:
 - **Rule details** - adds a new Message. The "Message" dialog shows up.
 - **Statistics** - shows a "Statistics" dialog with some statistics about the Quality Check Process ([see page 254 below](#)).
- ▶ **Toolbar** with the following items:
 - **Close** - (icon-button) same as "File > Close" menu-item.
 - **Show Occurrences with Result** - (drop-down list) shows only the Occurrences whose Severity level is that selected in the drop-down list. The Severity level is the worst expressed by all the Messages generated for that Occurrence in the Data Quality evaluation process.



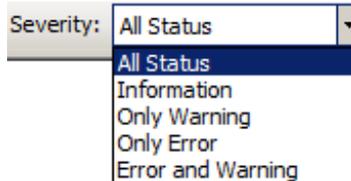
- **Statistics** - (icon-button) same as "View > Statistics" menu-item ([see page 254 below](#)).
- **Filter by** - (drop-down lists set) to filter the list of the messages triggered by Rules/Conditions, for the Occurrence selected in the left panel. The list can be filtered by one or more conditions in logical AND, i.e. the Messages displayed must satisfy all the filters set:
 - **Filter by Library** - (drop-down list) displays only the Messages generated by the Rules in the Query Rule Library selected from the drop-down list.



- **Filter by Rules** - (drop-down list) displays only the Messages generated by the Rule selected from the drop-down list.



- **Filter by Severity** - (drop-down list) displays only the Messages with the Severity level selected from the drop-down list.

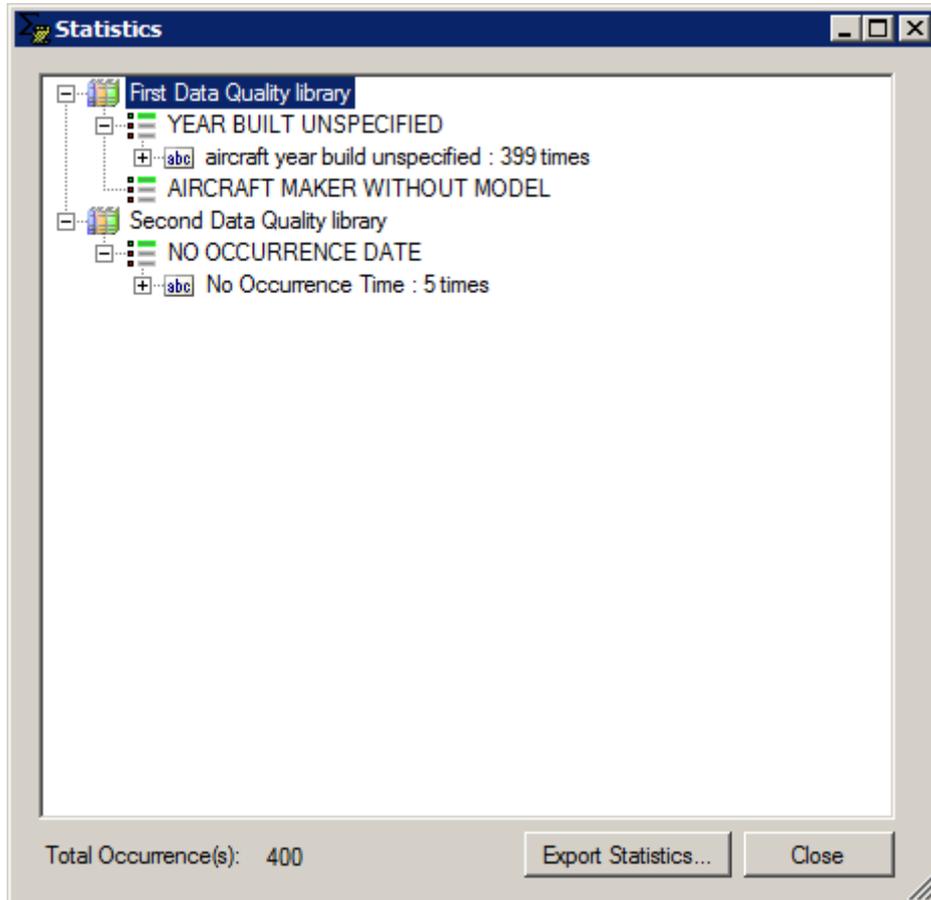


Result Statistics

You can view some statistics about the Quality Check Process.

To view them, either click the "Statistics" icon-button on the Toolbar or select the "View > Statistics" menu-item and the "Statistics" dialog shows up.

The "Statistics" dialog shows, for each Rule evaluated during the process, how many times each Message has been thrown, listing all the related Occurrences.



Dialog items:

- ▶ **Rule panel** - (list box) lists the existing Quality Rules Libraries, each with its Rules listed below, just as in the "Configuration" tab-panel ([see page 240](#)).
For each Rule evaluated during the process is displayed:
 - ▶ **count** - (number) a count how many times each Message has been thrown
 - ▶ **Occurrence List** - expanding the Message node by clicking onto it, the child nodes displays the list all the corresponding Occurrences.
 - ▶ **Total Occurrence(s)** - (number) at the bottom of the dialog there is a count of all the Occurrences processed in the Quality Check run.
 - ▶ **Export Statistics** - (button) click this the button to export the statistics generated.
The Statistics are exported in Excel format (*.xls).
The same result may be obtained specifying the Statistics destination file in the "Destination" tab-panel ([see page 242](#)).

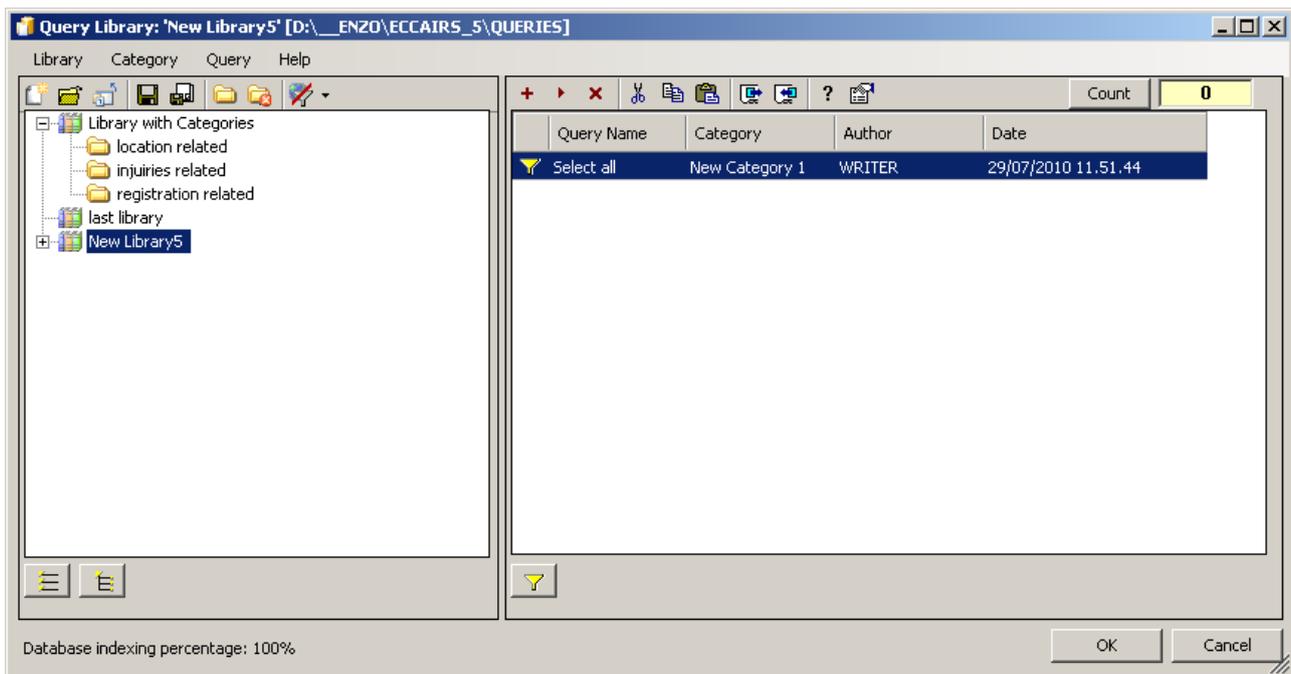
	A	B	C	D	E
1	LibraryName	RuleName	FiredMessage	MessageSe	Totals
2	Second Data Q	NO COMPLETE OCCURRENCE DATE/TIME	No Occurrence Local Date	Errors	213
3	Second Data Q	NO COMPLETE OCCURRENCE DATE/TIME	No Occurrence Time	Errors	70
4					
5					
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7. QUERY BUILDER TOOL

7.1. THE QUERY BUILDER

The ECCAIRS Query Builder is an integrated tool where Queries and Query Libraries are created, edited and managed.



The Query Builder is a tool used by all the applications of the ECCAIRS Reporting System when dealing with Restriction Queries, i.e. when specifying/extracting Occurrences matching some conditions on their Attributes/Entities, and also with Selection Queries, i.e. when specifying Occurrence Attributes Values to extract/work with.

The User cannot launch the Query Builder tool directly: it is only invoked automatically from the ECCAIRS applications, whenever there is the need to modify, create or execute a Query.

7.2. USING THE QUERY BUILDER

Before using the Browser you may need to read about some basic items:

- ▶ Queries ([see page 17](#)).
- ▶ Query Libraries and Categories ([see page 18](#)).

You can then explore the Query Builder through its main windows:

- ▶ Query Builder window ([see page 259](#)).
- ▶ Query Editing window ([see page 281](#)).
- ▶ Criterion Builder dialog ([see page 290](#)).

You can also explore the Query Builder through its functions:

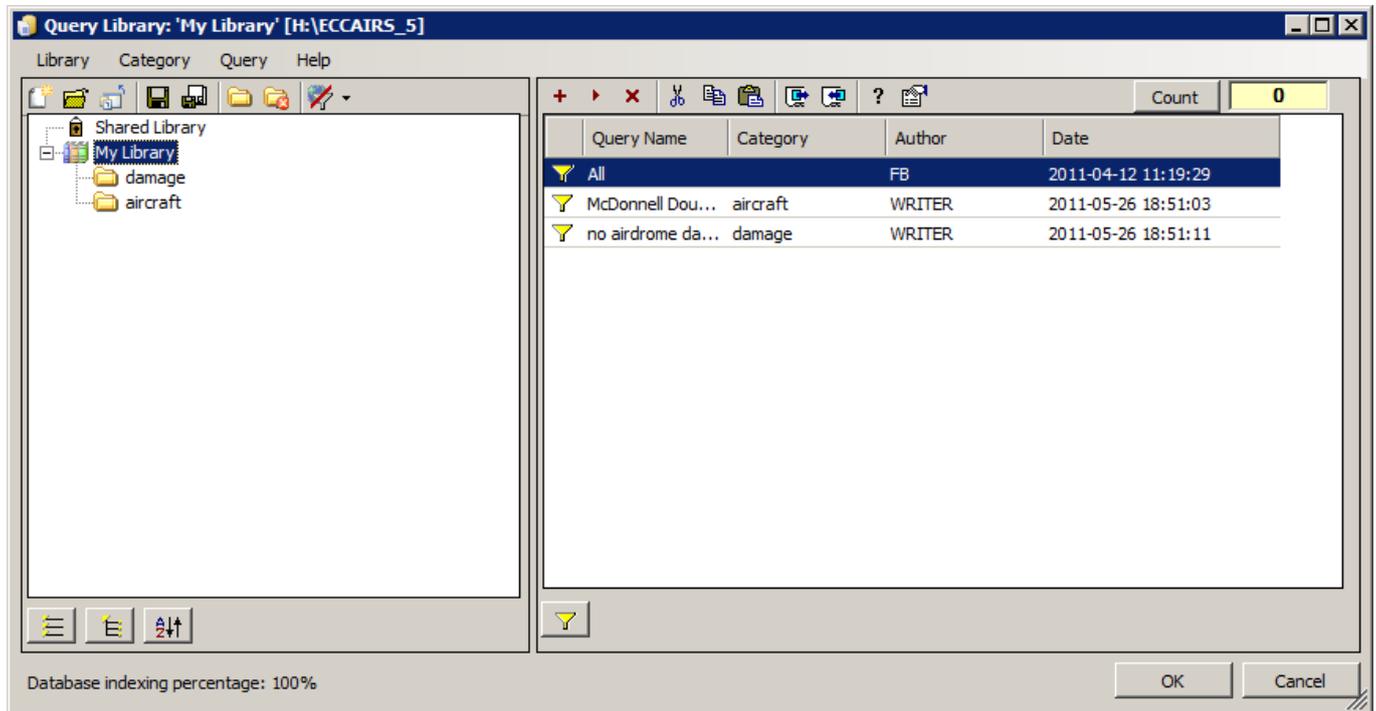
- ▶ You first have to create or open a Query Library using the "Library" menu, the "Library" panel and its Toolbar ([see page 263](#)).
In addition to standard management functions you can set a Global Filter to select the Occurrences upstream, before any Query is executed ([see page 269](#)), Lock Libraries ([see page 268](#)) and export the Queries to a text file ([see page 270](#)).
- ▶ You can manage Queries inside the "Query" panel and using the "Query" menu and the "Query" panel and Toolbar ([see page 275](#)).
You can create Query Categories using the "Category" menu and assign them Queries also using the "Query Right-click" menu ([see page 274](#)).
You can copy Queries across Libraries opened in the "Query Builder" window ([see page 275](#)) but also import and export Queries in Libraries ([see page 275](#)).
- ▶ When creating and adding Queries you will be using the "Query Editing" window ([see page 281](#)).
Queries are built by Criteria, connected by Logical Operators and structured using Brackets ([see page 17](#)).
You edit Queries through the "Edit" menu ([see page 283](#)).
In addition to the more common Query type, which is technically referred to as Restriction since it restricts the Occurrences by posing some constraints (i.e. it extracts some Occurrences satisfying a condition from the database), there are also Selections which simply extract some Attribute values from the database, using a "Selection" window ([see page 288](#)).
- ▶ To build a Criterion you will use the "Criterion Builder" dialog, operating on Attributes, Operators and Values ([see page 290](#)).

7.3. QUERY BUILDER WINDOW

7.3.1. QUERY BUILDER LAYOUT

When opening the Query Builder dialog window there may be one or more Query Libraries opened and shown:

- ▶ the last Query Library used .Alternatively a new empty Library is implicitly created and opened.
- ▶ any shared Query Library which is defined in the Repository for the Role/User with which you are logged in. The Shared Libraries, if any, are read-only (i.e. you cannot modify the Library and its Queries) and are marked by a "crossed pencil" icon.



The Query Builder window items:

- ▶ **Library panel** - on the left, used to list and manage Query Libraries, with its own Toolbar on the top ([see page 260](#)).
- ▶ **Query panel** - on the right, used to list and manage Queries, with its own Toolbar on the top ([see page 264](#)).
- ▶ **Menu bar**, with its menus:
 - **Library menu** ([see page 266](#)).
 - **Category menu** ([see page 271](#)).
 - **Query menu** ([see page 273](#)).
 - **Help menu** ([see page 279](#)).
- ▶ **Right-click menu**, in two versions:
 - **Library Right-click menu**, in the "Library" panel on the left ([see page 280](#)).
 - **Query Right-click menu**, in the "Query" panel on the right ([see page 280](#)).

- ▶ **Status bar** - at the bottom, indicating the database indexing percentage.
If the indexing percentage" is not 100% the results of Queries may be not be complete.

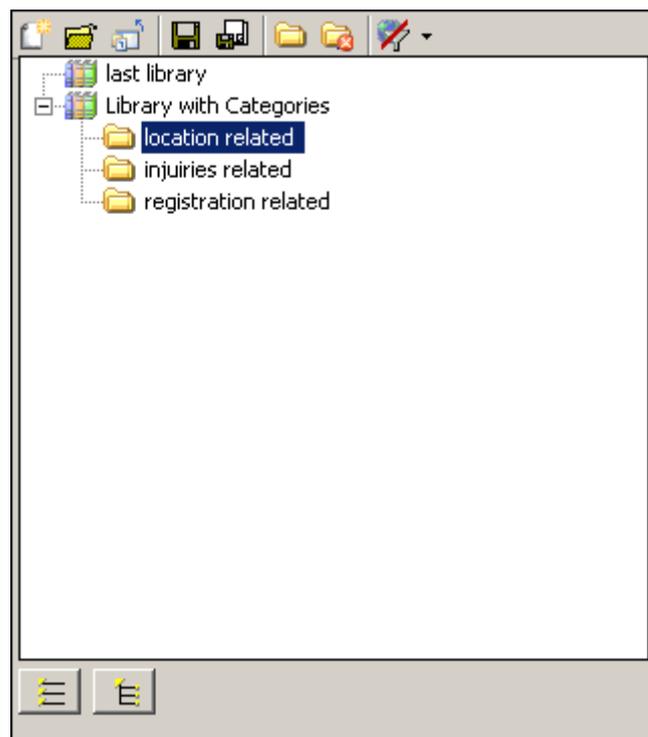
To exit the "Query Builder" window you have two buttons on its bottom right:

- ▶ **OK** - to return the Query selected to the calling application.
For instance, when operating with the ECCAIRS Browser, the Browser will execute the Query selected.
- ▶ **Cancel** - to exit without returning any Query selection.

7.3.2. LIBRARY PANEL

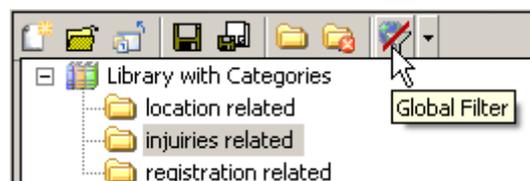
The "Library" panel lists all the Query Libraries currently opened in the Query Builder. Query Categories ([see page 18](#)), if any, are child nodes of the Query Library they belong to. The Queries included in the Query Library that you select are displayed in the "Query" panel on the right. If you select a Query Library Category instead, then only the Queries belonging to that Category will be listed in the "Query" panel.

In the "Library" panel you can create, open, save and close Query Libraries and add and remove Query Categories inside each Library, plus a bunch of other functions accessible form the "Library" menu and the "Category" menu.



Panel items:

- ▶ **Library Toolbar** - on the top.
A set of icon-buttons that performs most of the functions included in the "Library" menu ([see page 266](#)) and in the "Category" menu ([see page 271](#)).
Stop the mouse over a button to show a tooltip describing its function.



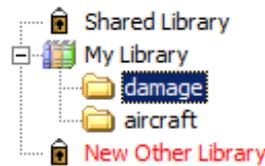
- ▶ **Library-tree** - a tree representation of the Query Libraries currently open within the Query Builder.

The top nodes represent the Query Libraries. The child nodes are the Categories of each Query Library. See "Category" menu for details ([see page 271](#)).

To display the Queries included in a Query Library select the corresponding node in the tree. The Queries are displayed in the "Query" panel on the right. If you select a Query Library Category instead, then only the Queries belonging to that Category will be listed in the "Query" panel.

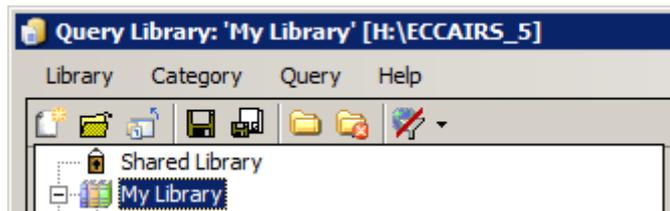
Select in the tree the Query Library or Category on which you want to perform functions. If you double-click on a Library or on a Category the first Query in the Library or Category is automatically opened for editing in the "Query Editing" window ([see page 281](#)).

There are four kind of icons that are used to mark items in the Library-tree panel:



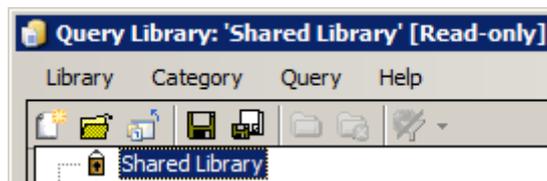
- **"Books" icon** - for standard Libraries.

When you select a standard library in the panel the Query Builder window Title bar shows the Library name and its location (i.e. the folder where the library is stored).



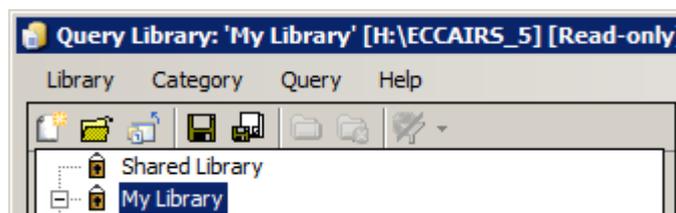
- **"Folder" icon** - for Query Categories. These are child-nodes appended to the Library they belong to.
- **"Crossed Pencil" icon** - for Shared Libraries, pre-defined in the Repository for the Role/User with which you are logged in.

When you select a shared library in the panel the Query Builder window Title bar shows the Library name followed by "[Read-only]". There is no location/folder displayed in the Title bar since the Query Library is provided through the Repository.

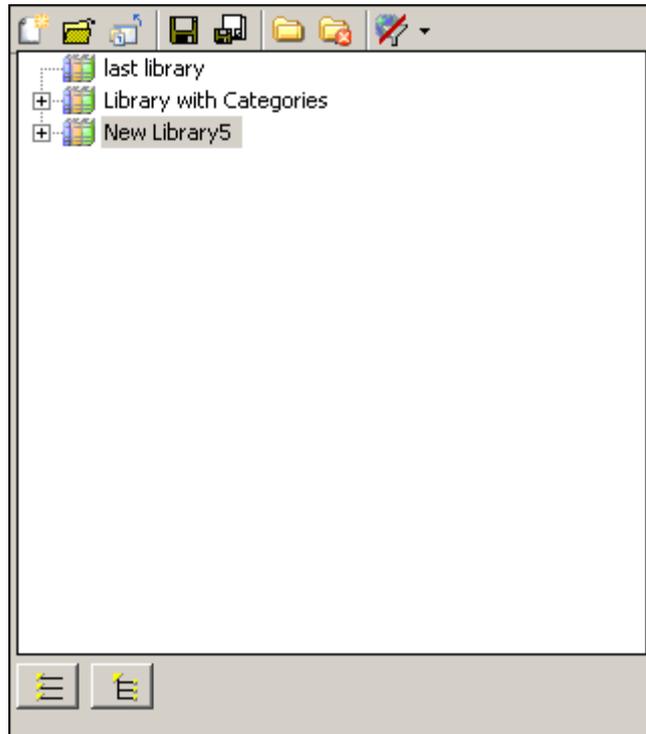


- **"Crossed Pencil" icon** - for Locked Libraries.

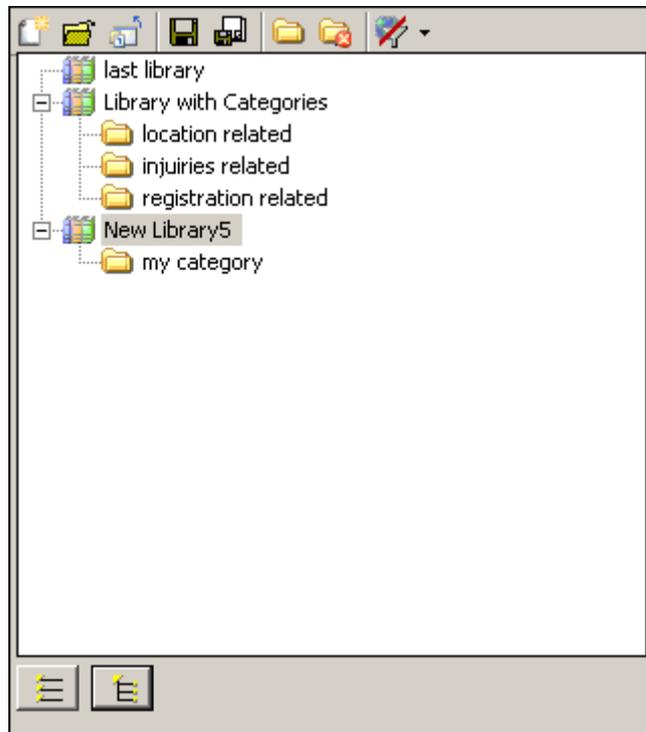
When you select a standard library in the panel the Query Builder window title bar shows the Library name and its location (i.e. the folder where the library is stored), followed by "[Read-only]".



- ▶ **Expand/Collapse buttons** - at the bottom.
Click the "Collapse all" button (the leftmost) to show only the Query Library parent nodes.



Conversely, click the "Expand all" button (the rightmost) to show the Query Library parent nodes and all their the child Category nodes.



7.3.3. QUERY LIBRARY FUNCTIONS

You can use the:

- ▶ **"Library" menu** - to create, open, save, close, lock, etc Query Libraries.
 - ▶ **"Category" menu** - to add and remove Categories inside each Library.
 - ▶ **"Right-click" menu** - to close a Library and perform functions of the "Category" menu.
 - ▶ **"Query Toolbar"** - to perform most of the functions available in the "Library" menu and "Category" menu.
- Stop the mouse over a button to show a Tooltip describing its function.



7.3.4. QUERY FUNCTIONS

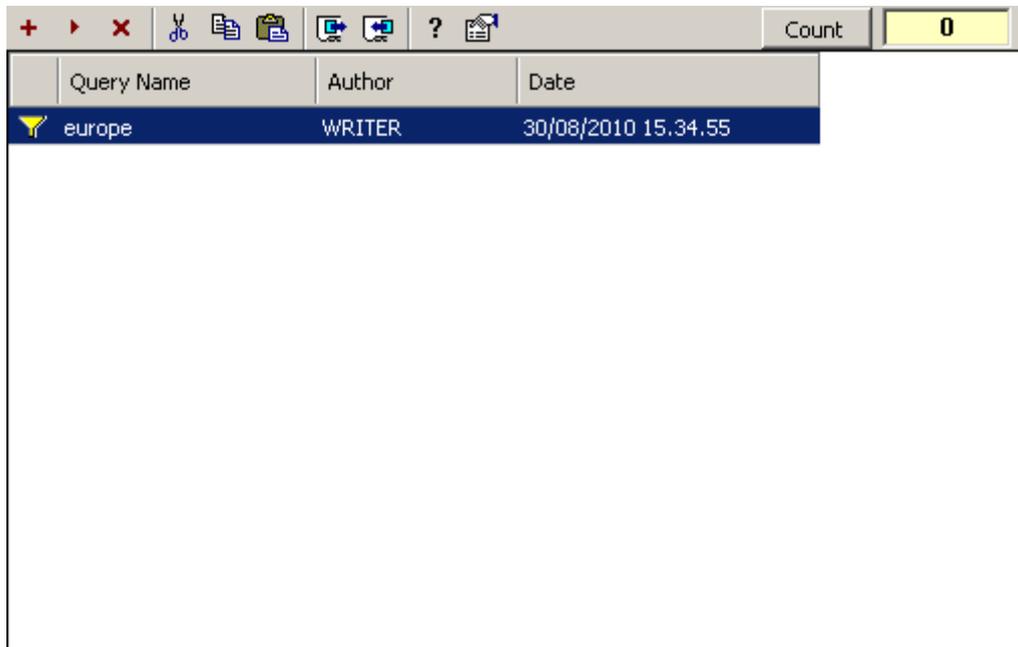
You can use the:

- ▶ **"Query" menu** - to add, edit , remove, copy, paste, import, assign Queries to Category, etc.
 - ▶ **"Right-click" menu** - to select quickly some of the functions available in the "Query" menu.
 - ▶ **"Query" Toolbar** - to perform most of the functions available in the "Query" menu.
- Stop the mouse over a button to show a Tooltip describing its function.



7.3.5. QUERY PANEL

The "Query" panel lists all the Queries of the Query Library selected in the "Library" panel. If you instead select a Category in the "Library" pane, then the "Query" panel lists all the Queries included in that Category. You can add, edit and remove Queries and also import and export Queries from/to other Query Libraries.



Panel items:

- ▶ **Query Toolbar** - on the top.
A set of icon-buttons that performs most of the functions included in the "Library" menu and in the "Category" menu.
Stop the mouse over a button to show a tooltip describing its function.



- ▶ **Count button** - at the right of the "Library" Toolbar.
Click this button to execute the Query selected in the Query list (below) and see in the result box aside the number of Occurrences that the Query selects out of the database.



- ▶ **Query list** - the list of the Queries included in the Query Library selected in the "Library" pane.
If you instead select a Category in the "Library" pane, then the "Query" panel lists all the Queries included in that Category.
Each Query is listed with its name, category (if any), author and last modification date.
In the list you have to select the Query on which you want to perform functions.
Double-clicking on a Query opens it in the "Query Editing" window.

- ▶ **Filter button** - at the bottom.
The "Query" panel normally lists all the Queries included in the Query Library.

Query Name	Category	Author	Date
▼ All		WRITER	14/09/2010 12.24.37
▼ ei registration	registration related	WRITER	30/08/2010 15.35.28
▼ europe	location related	WRITER	30/08/2010 15.34.55
▼ fatal injuries	injuries related	WRITER	30/08/2010 15.28.13
▼ user jrc		WRITER	13/09/2010 16.45.04
▼ with injuries	injuries related	WRITER	30/08/2010 15.28.13

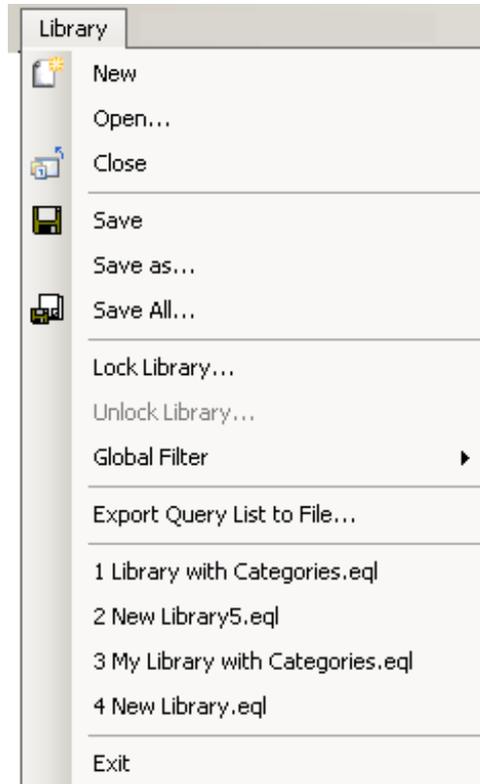
To display only Queries whose name contains some text click the "Filter" button and type the filtering text into the text box aside. Filtering is performed dynamically: while you are typing the filtering text characters only the Queries matching the typed characters are displayed.

Query Name	Category	Author	Date
▼ fatal injuries	injuries related	WRITER	30/08/2010 15.28.13
▼ with injuries	injuries related	WRITER	30/08/2010 15.28.13

Filter text: inj

7.3.6. LIBRARY MENU

The "Library" menu performs functions on Query Libraries and upstream global filtering.



Menu items:

- ▶ **New**
- ▶ **Open**
- ▶ **Close**
- ▶ **Save**
- ▶ **Save as**
- ▶ **Save All**
- ▶ **Lock Library**
- ▶ **Unlock Library**
- ▶ **Global Filter**
- ▶ **Export Query List to File**
- ▶ **Open one of the Most Recently Used Query Libraries**
- ▶ **Exit**

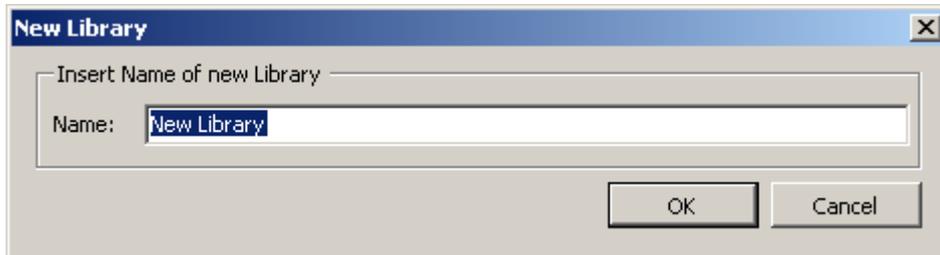
Beyond menu-items you can also:

- ▶ **Rename a Query Library**

7.3.6.1. LIBRARY > NEW

Creates a new Library.

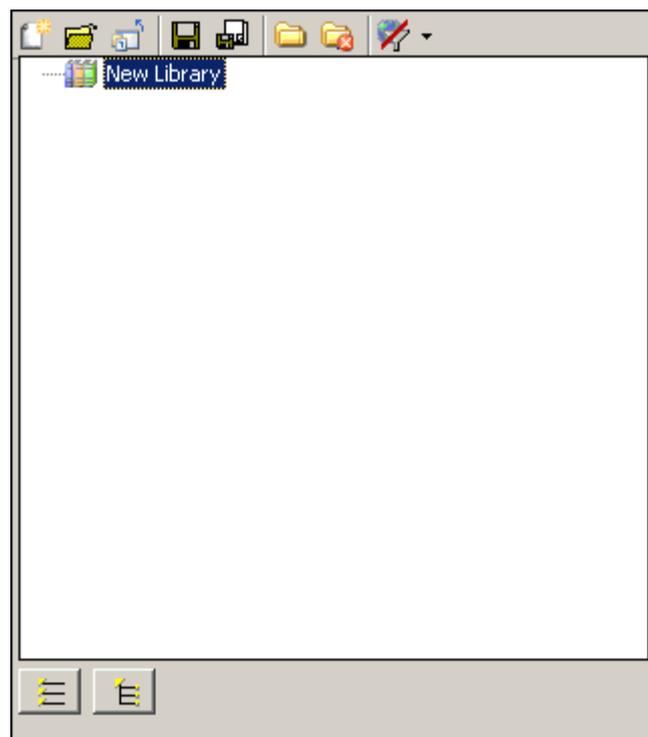
The system will ask you a name for the new Library.



Click:

- ▶ **OK** - to confirm.
- ▶ **Cancel** - to cancel the action.

A new folder-icon with the Library name is displayed in the "Library" pane.



7.3.6.2. LIBRARY > OPEN

Opens an existing Query Library.

The system shows a standard "Open" dialog and you have to pick up the Query Library file (*.eql) you wish.

The dialog is opened on the last used folder.

7.3.6.3. LIBRARY > CLOSE

Closes a Query Library.

If you have made any changes to the Query Library without saving it, then you will be asked whether you wish to save the changes before closing it.

7.3.6.4. LIBRARY > SAVE

Saves a Query Library.

If it is the first time that you save the Query Library since you have created it, the system behaves as with the "Library > Save as" menu-item.

7.3.6.5. LIBRARY > SAVE AS

Saves a Query Library into a new Query Library file.

The system shows a standard "Save" dialog and you have to select the folder and name for the Query Library file (*.eqf) you wish.

The dialog is opened on the last used folder.

7.3.6.6. LIBRARY > SAVE ALL

Saves all the Query Libraries currently open in the "Query Builder" window.

7.3.6.7. LIBRARY > LOCK LIBRARY

Locks a Query Library, preventing other Users to modify it.

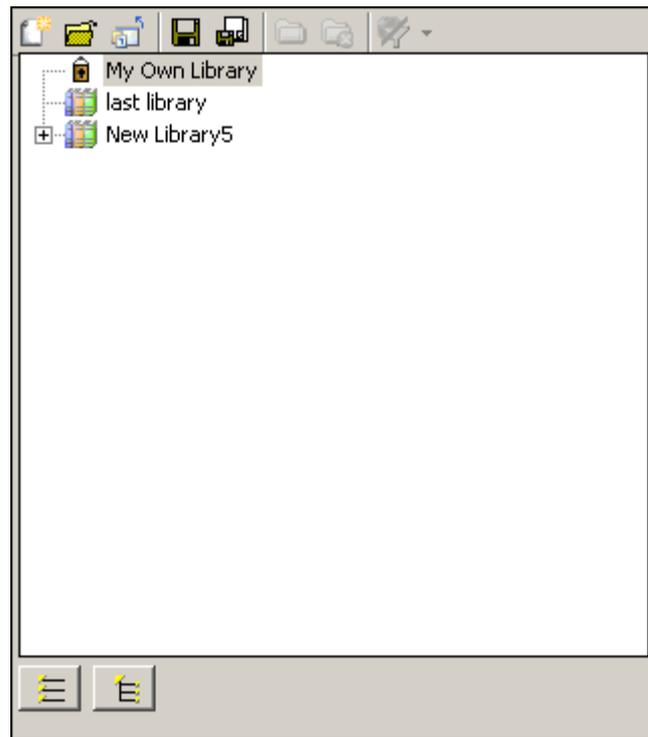
You have to provide a password, that will then be needed to unlock the Query Library.



Click:

- ▶ **OK** - to confirm.
- ▶ **Cancel** - to cancel the action.

The Library folder-icon is changed into a locked-icon.



7.3.6.8. LIBRARY > UNLOCK LIBRARY

Unlocks a locked Query Library.

You have to provide the password that was used to lock the Query Library.



7.3.6.9. LIBRARY > GLOBAL FILTER

You can define and apply a "Global Filtering" Query that will be executed upstream to pre-select Occurrences before any Query in the Library.

The sub-items that you can select are:

- ▶ **Enable/Disable Global Filter** - to enable or disable the Global Filter. This way you can quickly insert or remove the upstream filter on Occurrences.
- ▶ **Edit Global Filter** - to edit the Query that performs the Global Filter. The editing is performed through standard "Query" dialog window.
- ▶ **Remove Global Filter** - to delete the Query that performs the Global Filter. If you only need to temporarily remove the filter you may consider using the "Library > Global Filter > Disable Global Filter" menu-item.

7.3.6.10. LIBRARY > EXPORT QUERY LIST TO FILE

Exports the textual definition of all Queries in the Query Library selected.

The system shows a standard "Save" dialog and you have to select the folder and name for the text file to create.

The dialog is opened on the last used folder during a save operation.

```

*****
Query Library:Library with Categories
Total Queries:Library with Categories
Export Date:26/09/2010 16.43.17

-----
Query List
-----

1. All
2. ei registration
3. europe
4. fatal injuries
5. user jrc
6. with injuries

-----
Query Details
-----

1. All
Find all Occurrences where

{
    | The occurrence file number {Occurrence} [Value] has value
}

2. ei registration
Find all Occurrences where

{
    | Aircraft registration {Occurrence/Aircraft} [Value] contains 'ei'
}
    
```

7.3.6.11. LIBRARY > OPEN ONE OF THE MOST RECENTLY USED QUERY LIBRARIES

the last items in the menu are the last four Query Library files that have been used. You can click on any of them to quickly re-open the Query Library.

7.3.6.12. HOW TO RENAME A LIBRARY

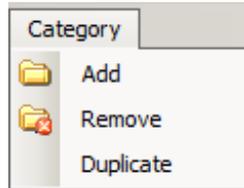
You can rename a Library by selecting its node in the "Library" panel and either:

- ▶ hit the "F2" keyboard key, or
- ▶ click onto the Library name at the side of the folder-icon.

In both cases the Library name becomes displayed in reverse colours and surrounded by a box. At that point you can type in the new name.

7.3.7. CATEGORY MENU

The "Category" menu performs functions on Categories.



Menu items:

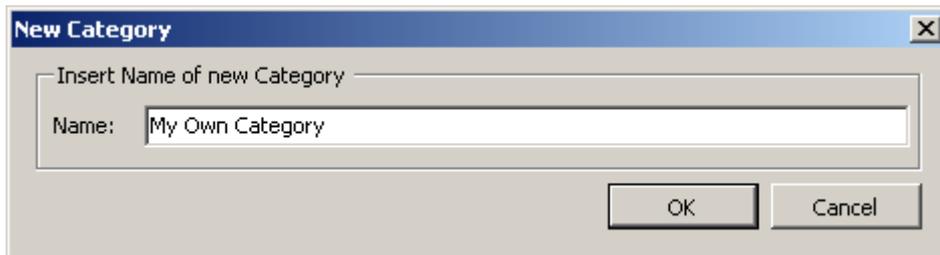
- ▶ **Add**
- ▶ **Remove**
- ▶ **Duplicate**

Beyond menu-items you can also:

- ▶ **Rename a Query Category**

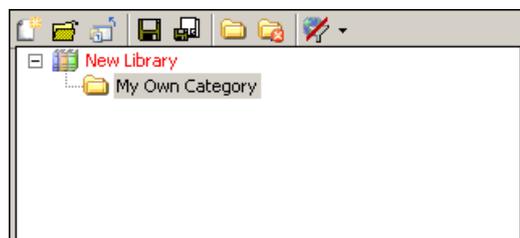
7.3.7.1. CATEGORY > ADD

Adds a Category within the current Query Library, or even to an existing Category. You can therefore also create sub-Categories, but only at one level (i.e. you cannot create sub-sub-Categories). The system will ask you a name for the new Category.



You can click:

- ▶ **OK** - to confirm.
A new folder-icon with the Category name is displayed below the "Library" node, or the "Category" node selected.



- ▶ **No** - to cancel the action.

To assign a Query to a Category you use the "Query > Assign to Category" menu-item ([see page 274](#)).

7.3.7.2. CATEGORY > REMOVE

Removes a Category.

If there is any Query included in that Category, the Query will be moved to the "Library" level, i.e. its Category will be removed but the Query will be set without Category.

You will get a confirmation dialog before actually removing the Category.



Click:

- ▶ **Yes** - to remove the Category.
- ▶ **No** - to cancel the removal.

7.3.7.3. CATEGORY > DUPLICATE

Duplicates the Category currently selected in the "Library" panel.

ECCAIRS assigns to the new Category the name of the "source" Category followed by a progressive number.

All the Queries included in the "source" Category are duplicated into the duplicated Category and their name is the name of the "source" Query followed by a progressive number

7.3.7.4. CATEGORY > RENAME A CATEGORY

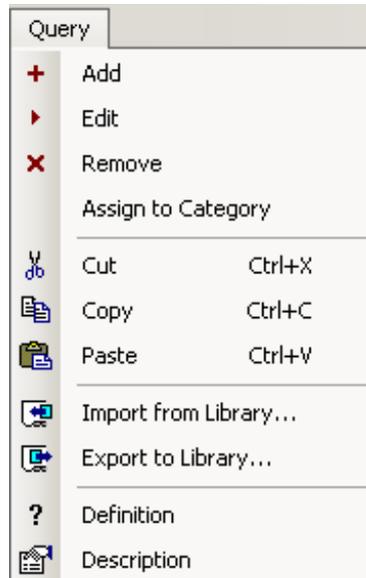
You can rename a Category by selecting its node in the "Library" panel and either:

- ▶ hit the "**F2**" keyboard key, or
- ▶ click onto the Category name at the side of the folder-icon.

In both cases the Category name becomes displayed in reverse colours and surrounded by a box. At that point you can type in the new name.

7.3.8. QUERY MENU

The "Query" menu performs functions on Queries.



Menu items:

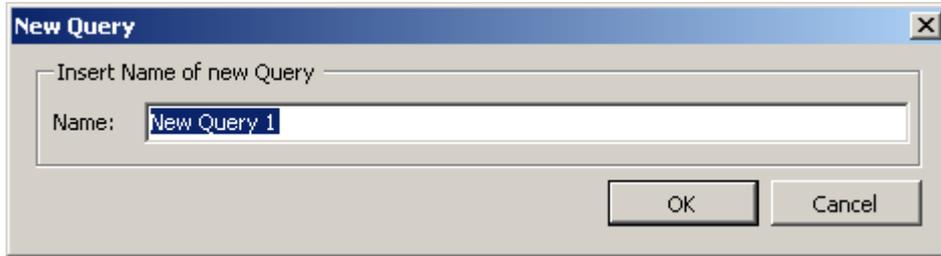
- ▶ **Add**
- ▶ **Edit**
- ▶ **Remove**
- ▶ **Assign to Category**
- ▶ **Cut/Copy/Paste**
- ▶ **Import from Library**
- ▶ **Export to Library**
- ▶ **Definition**
- ▶ **Description**

Beyond menu-items you can also:

- ▶ **Rename a Query**

7.3.8.1. QUERY > ADD

Adds a Query to the Library. You first have to give a name to the new Query and then the system opens the "Query Editing" window where you can define the Query.

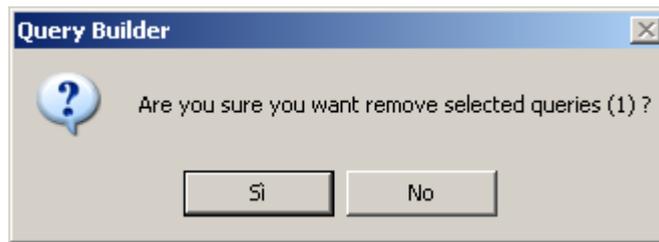


7.3.8.2. QUERY > EDIT

Edits the Query selected. The system opens the "Query Editing" window where you can edit the Query.

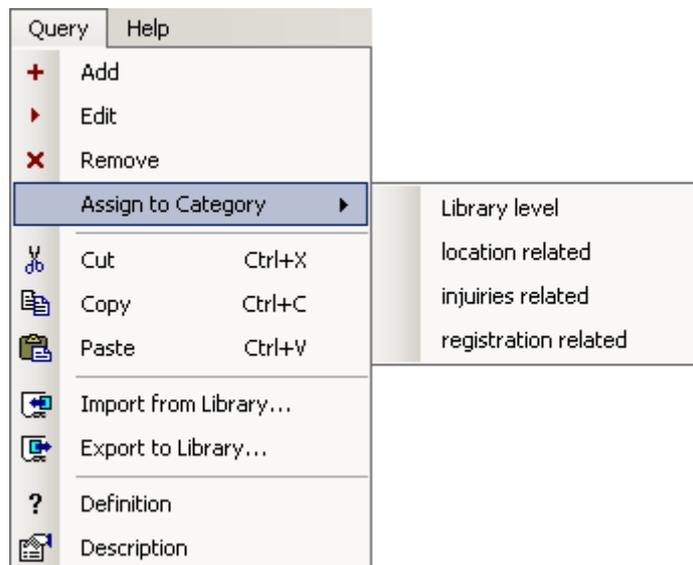
7.3.8.3. QUERY > REMOVE

Removes the Query selected. The system asks you to confirm the removal.



7.3.8.4. QUERY > ASSIGN TO CATEGORY

Assigns the Query selected to a Category. You indicate the Category by selecting them from the sub menu-items.



7.3.8.5. QUERY > CUT/COPY/PASTE

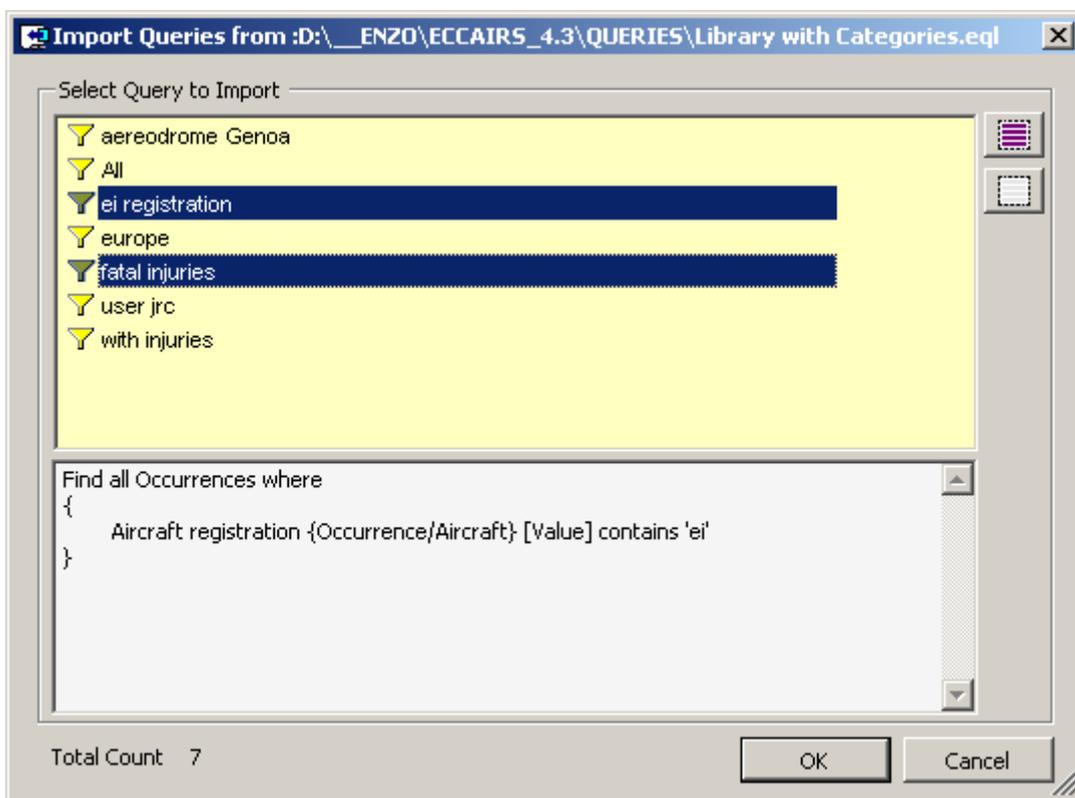
Cuts, copies and pastes Queries also across Categories and Queries. If you copy and paste a Query within the same Query Library, then you will be prompted for a new name for the pasted Query.

7.3.8.6. QUERY > IMPORT FROM LIBRARY

Imports a Query from another Query Library file into the selected Query Library .

Note that if you have both the Query Libraries open, then you just need to use "Query > Copy" and "Query > Paste".

The system shows a standard "Open" dialog and you have to pick up the Query Library file (*.eq) including the Query you wish to import. An "Import Queries" dialog is then displayed.



You can select in the upper yellow panel the Queries you wish to import. You can use the standard "SHIFT" key (contiguous) and "CTRL" key (non contiguous) multi item selection. Or even use the two top right buttons to select/deselect all Queries.

The lower panel shows the definition of the Query you are selecting.

Once you are satisfied with the selection use:

- ▶ **OK** - to import the Queries
- ▶ **Cancel** - to cancel the operation.

7.3.8.7. QUERY > EXPORT TO LIBRARY

Exports Queries from the selected Query Library into another Query Library file.

Note that if you have both the Query Libraries open, then you just need to use "Query > Copy" and "Query > Paste".

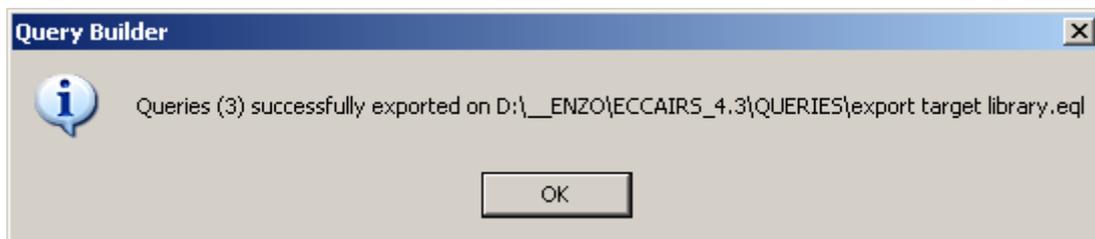
You have to:

- ▶ select the Queries you wish to export: you can use the standard "**SHIFT**" key (contiguous) and "**CTRL**" key (non contiguous) multi item selections within the "Query" pane.
- ▶ then select the "Query > .Export to Library" menu-item.

The system shows a standard "Save" dialog and you have to select the folder and name for the Query Library file (*.eqf) into which you wish to export the Queries. If there is any Query with the same name in the target Query Library file then the system asks you to change the name of the Query to export.



The system signals the export completion with a notification dialog.

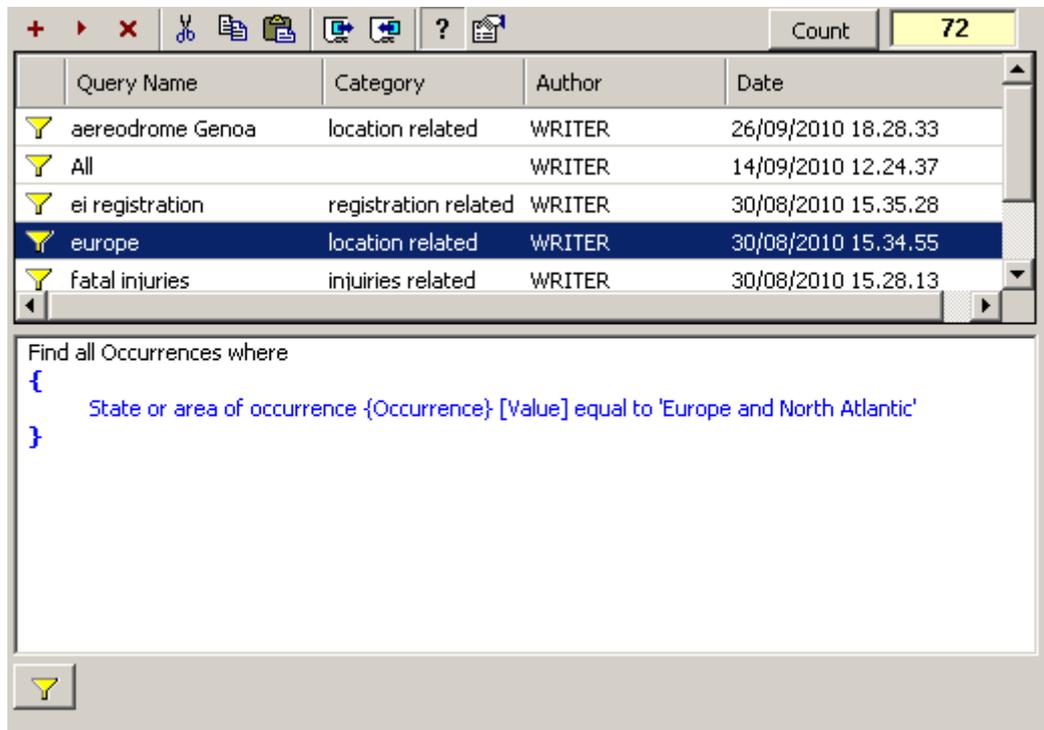


Click the "**OK**" button to acknowledge and close the dialog.

7.3.8.8. QUERY > DEFINITION

Shows the definition of the selected Query in the lower part of the "Query" pane.

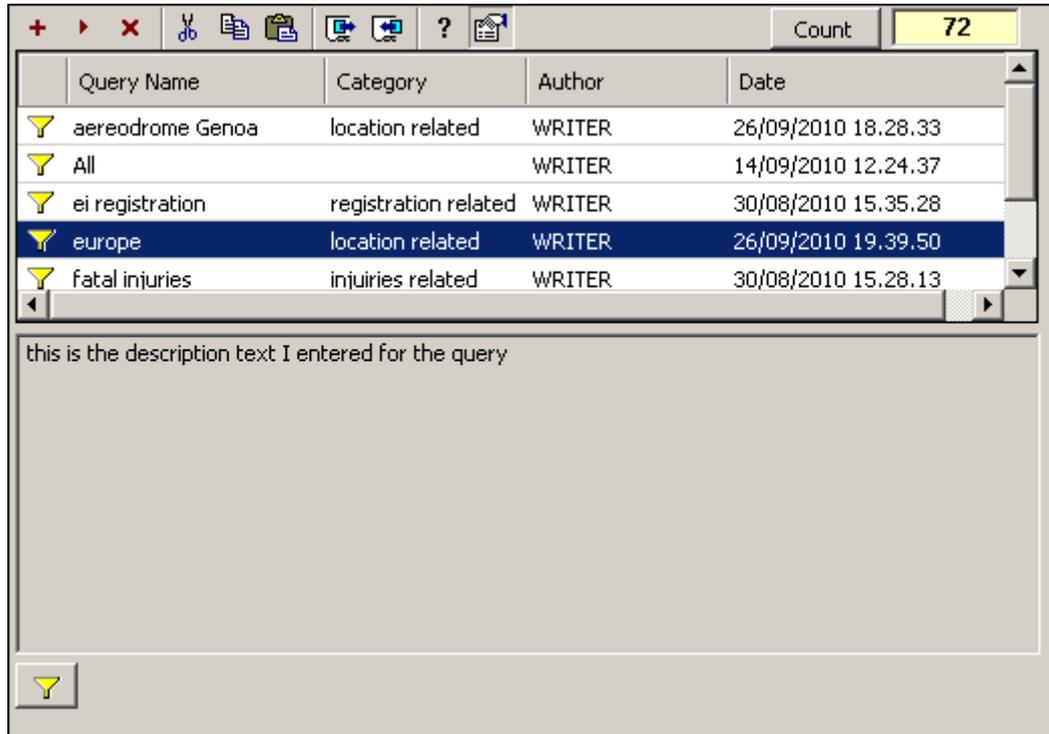
Selecting this menu-item again turns off the display of the Query definition.



7.3.8.9. QUERY > DESCRIPTION

Shows the textual description of the selected Query in the lower part of the "Query" pane, if any has been entered.

Selecting this menu-item again turns off the display of the Query description.



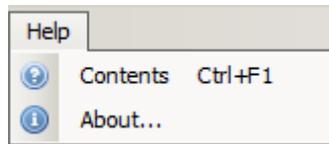
7.3.8.10. HOW TO RENAME A QUERY

You can rename a Query by selecting it in the "Query" panel and either:

- ▶ hit the "F2" keyboard key, or
- ▶ click into the "Query Name" column of the Query in the list.

In both cases the Query name becomes displayed in reverse colours and surrounded by a box. At that point you can type in the new name.

7.3.9. HELP MENU



Menu items:

- ▶ **Contents**
- ▶ **About**

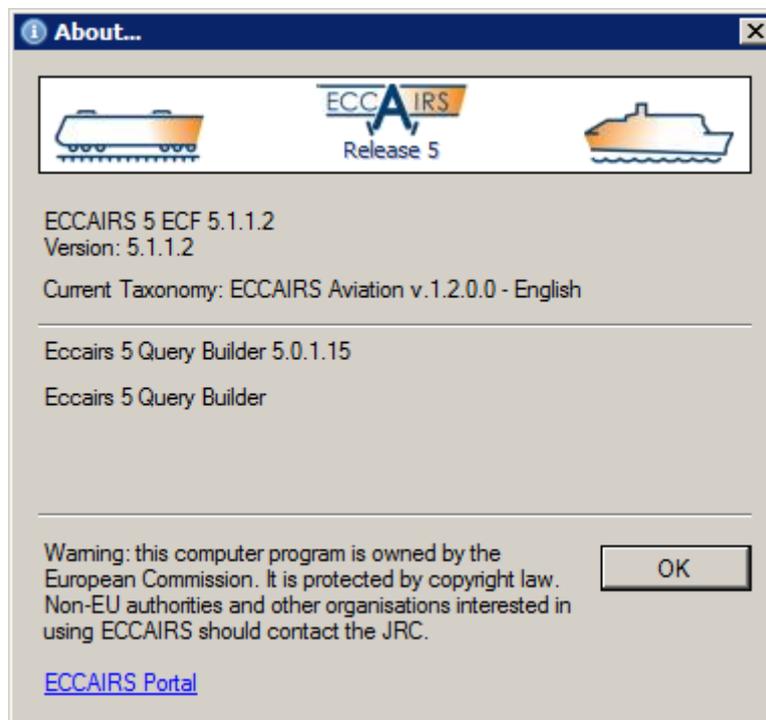
7.3.10. HELP > CONTENTS

Displays online help for the application you are running.

You can also invoke the online help at any time by pressing the "CTRL" and "F1" keyboard keys at the same time.

7.3.11. HELP > ABOUT

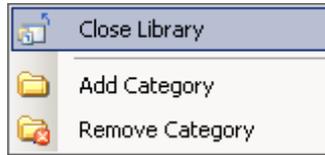
Opens a dialog displaying details on the version of the application you are running.



Click the "OK" button to acknowledge and close the dialog.

7.3.12. LIBRARY RIGHT-CLICK MENU

The "Library Right-click" menu performs functions on Categories and closes Query Libraries.

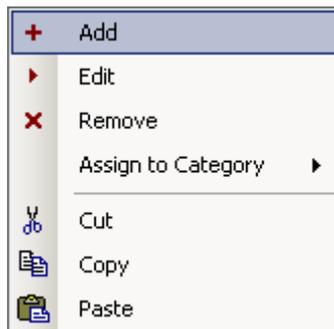


Menu items:

- ▶ **Close Library** - same as "Library > Close" menu-item ([see page 268](#)).
- ▶ **Add Category** - same as "Category > Add" menu-item ([see page 271](#)).
- ▶ **Remove Category** - same as "Category > Remove" menu-item ([see page 272](#)).

7.3.13. QUERY RIGHT-CLICK MENU

The "Query Right-click" menu performs functions on Queries and assigns Query Categories.

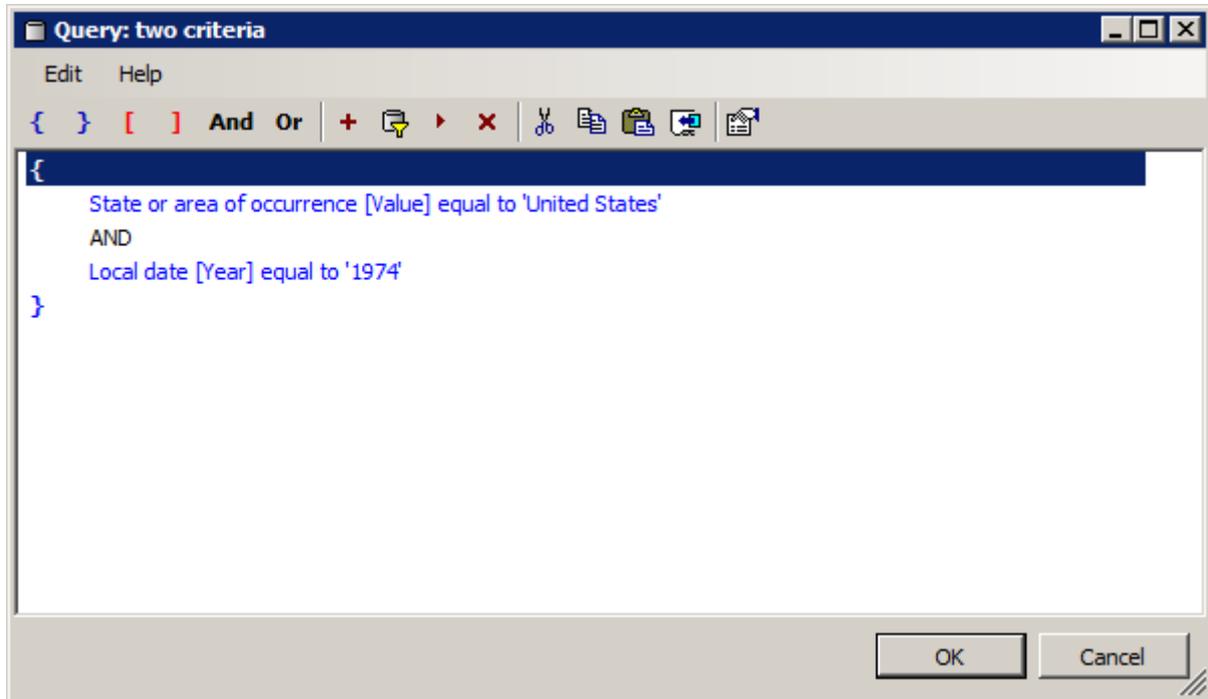


Menu items:

- ▶ **Add** - same as "Query > Add" menu-item ([see page 274](#)).
- ▶ **Edit** - same as "Query > Edit" menu-item. ([see page 274](#)).
- ▶ **Remove** - same as "Query > Remove" menu-item ([see page 274](#)).
- ▶ **Assign to Category** - same as "Query > Assign to Category" menu-item ([see page 274](#)).
- ▶ **Cut, Copy, Paste** - same as "Query > Cut, Copy, Paste" menu-items ([see page 275](#)).

7.4. QUERY EDITING WINDOW

The "Query" window is the place where you can edit a Query, i.e. define and combine Criteria.



The "Query" window includes:

- ▶ **Menu bar** - including:
 - **Edit menu** - ([see page 283](#)).
 - **Help menu** - ([see page 285](#)).
- ▶ **Right-click menu** - ([see page 286](#)).
- ▶ **Toolbar** - offers a set of buttons to access quickly the same functions of the "Edit" menu. Stop the mouse over a Toolbar button to show a Tooltip describing its function.



- ▶ **"Query Definition" panel** - where you see and edit on the Criteria and the logical operators among them.

```
{
  State or area of occurrence {Occurrence} [Value] equal to 'Andorra'
  AND
  Local date {Occurrence} [Year] equal to '2010'
}
```

In the "Query Definition" panel it is possible to identify the three elements of which a Query is built upon:

- ▶ **Criteria** - which are specified through the Criterion Builder dialog ([see page 290](#)).
- ▶ **Logical operators** ([see page 286](#)).
- ▶ **Brackets** ([see page 287](#)).

By combining these elements, even complex Queries can be build quite easily.

Query elements are added, deleted and edited in the Query Definition panel using the "Edit" menu-items, or corresponding Toolbar buttons and "Right-click" menu-items.

You can also import Queries from Query Libraries and enter/display Query Descriptions using the same menus.

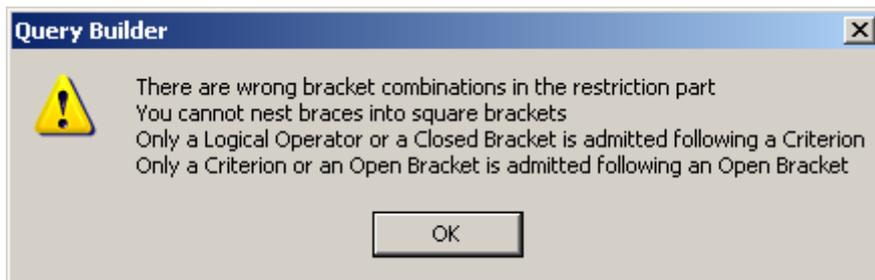
Double-clicking a left bracket collapses and expands the contained elements.

Possible errors in the Query syntax are indicated, while editing, by suitable message windows (for instance because of an unbalanced number of brackets).

Also, the Query content can be completely cleared selecting **"Edit > Clear"** menu item.

To exit the "Query" dialog click:

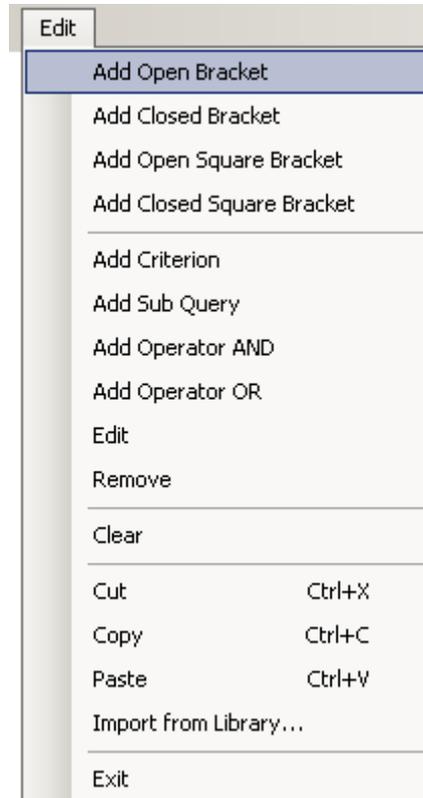
- ▶ **OK** - to accept the Query specified/edited.
The system checks for formal syntax errors (missing or excessive logical operators, wrong bracket use, etc) and, in case, points out the error(s) with explicative notification dialogs.



- ▶ **Cancel** - to discard the Query editing done.

7.4.1. EDIT MENU

The "Edit" menu offers all the functions to build Queries, within the "Query" window.

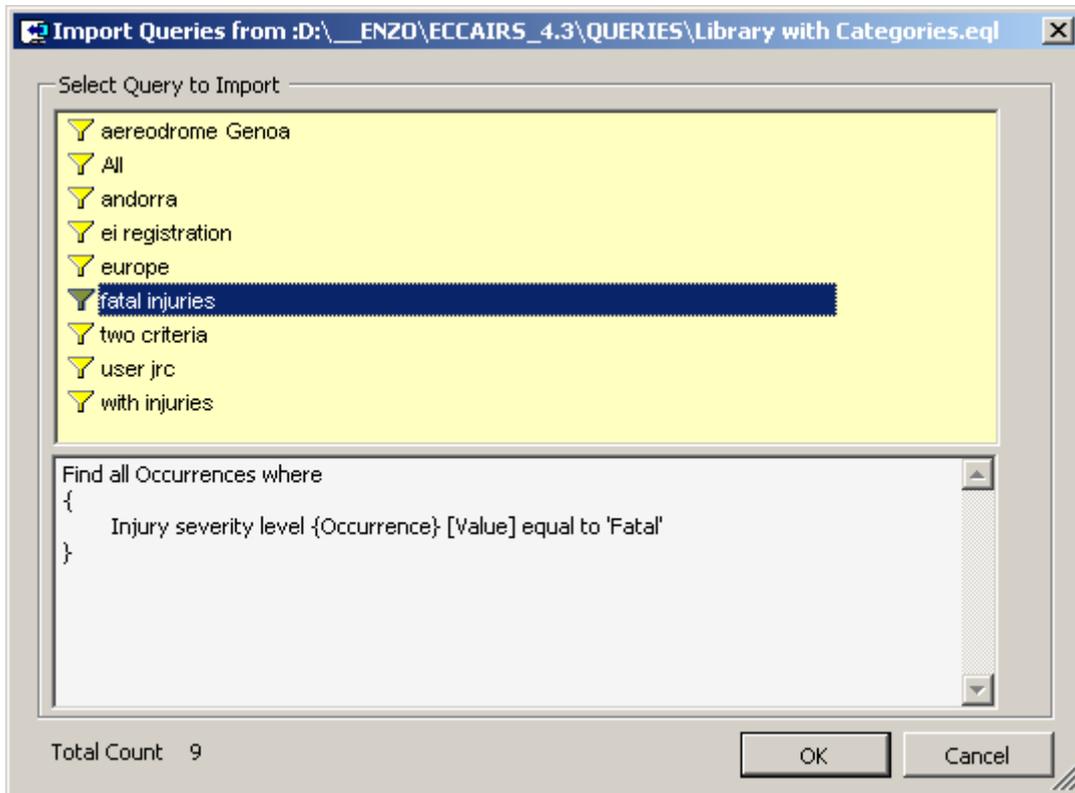


For most of the menu-items you first have to select either the position inside the Query where the item-corresponding element will be inserted or the element to be removed/edited.

Menu items:

- ▶ **Add Open/Closed Bracket** - for details on Brackets [see page 287](#).
- ▶ **Add Open/Closed Square Bracket** - for details on Brackets [see page 287](#).
- ▶ **Add Criterion** - for details on Criteria [see page 286](#).
- ▶ **Add Sub Query** - adds an existing Query (with all its Criteria) inside a Criterion. This way you may decouple the development and debug of complex Queries.
- ▶ **Add Operator AND/OR** - for details on Operators [see page 292](#).
- ▶ **Edit** - opens the "Criterion Builder" dialog to edit the Criterion selected ([see page 290](#)).
- ▶ **Remove** - removes the selected element.
- ▶ **Clear** - clears the entire Query content.
- ▶ **Cut/Copy/Paste** - copies a move elements inside the Query.

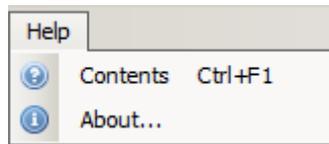
- ▶ **Import from Library** - imports a Query from a Query Library. This will overwrite all the Criteria (restrictions) already existent inside the Query being edited. The system shows a standard "Open" dialog and you have to pick up the Query Library file (*.eq) including the Query you wish to import. An "Import Queries" dialog is then displayed.



You can select in the upper yellow panel the (single) Query you wish to import. Once you are satisfied with the selection use:

- **OK** - to import the Query.
- **Cancel** - to cancel the operation.
- ▶ **Exit** - closes the "Query" window.

7.4.2. HELP MENU



Menu items:

- ▶ **Contents**
- ▶ **About**

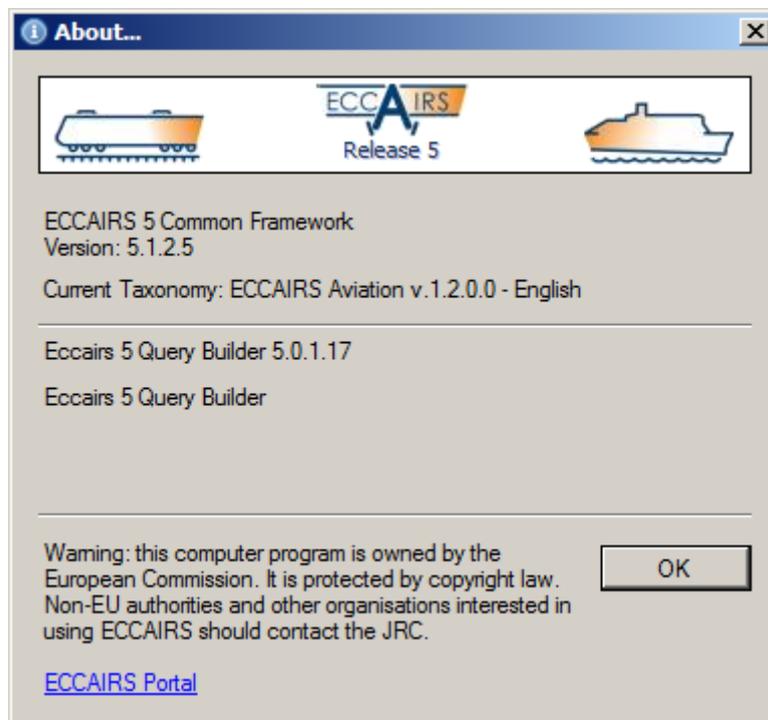
7.4.3. HELP > CONTENTS

Displays online help for the application you are running.

You can also invoke the online help at any time by pressing the "CTRL" and "F1" keyboard keys at the same time.

7.4.4. HELP > ABOUT

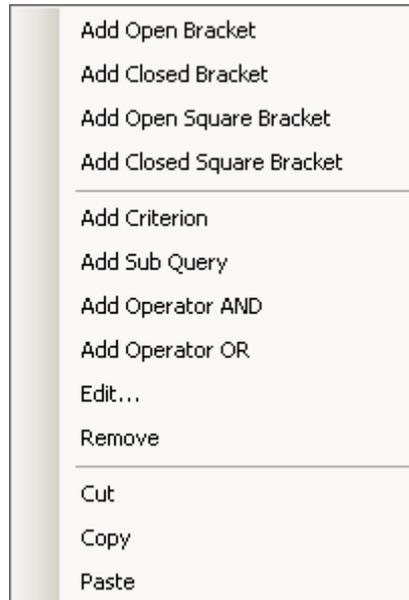
Opens a dialog displaying details on the version of the application you are running.



Click the "OK" button to acknowledge and close the dialog.

7.4.5. RIGHT-CLICK MENU

The Right-click menu offers a quick access to the most common functions of the "Edit" menu.



7.4.6. CRITERION

A Criterion is an expression involving 3 elements:

- ▶ **Attribute** - for instance: *State/Area* (ADREP, Air Safety application domain)
- ▶ **Operator** - for instance: *equal to*
- ▶ **Value** - for instance: *Andorra*

For instance:

equal-to Andorra

```
{
  State or area of occurrence {Occurrence} [Value] equal to 'Andorra'
}
```

7.4.7. LOGICAL OPERATORS

A Logical Operator is one of the two logical operators AND/OR used to connect two or more Criteria:

CRITERION AND/OR CRITERION

(e.g. State/Area equal-to Andorra AND Local date equal-to Current Year)

```
{
  State or area of occurrence {Occurrence} [Value] equal to 'Andorra'
  AND
  Local date {Occurrence} [Year] equal to '2010'
}
```

7.4.8. BRACKETS

Brackets are used to group logical expressions to build complex Criteria.

Curly brackets { } are used for normal grouping.

Square brackets [] are used to limit the Criteria within the same branch of the Occurrence structure, for instance when more than one aircraft/ship/train is involved in an Occurrence.

7.5. SELECTIONS IN QUERIES

7.5.1. RESTRICTION AND SELECTION

What we normally call Queries in ECCAIRS, are actually called "Restrictions" in the relational database terminology, since you restrict the database records you are dealing with (i.e. the ECCAIRS Occurrences) based on some restrictive conditions on their Attributes.

A Query (restriction) is made up by one or more criteria, connected by logical operators. A Criterion involves some sort of function, most commonly comparisons, between an Attribute and its possible values.

The part of the Query that specifies/extracts the Attribute (and its values) is called "selection".

Whenever you create or edit a Query (a restriction) the system opens a "Query" dialog where you find all the functions needed to specify all the criteria, with the selections and the functions involved.

Stand-alone Selections

Other times you only need to have Queries that extracts the Attribute values, that is "stand-alone" selections.

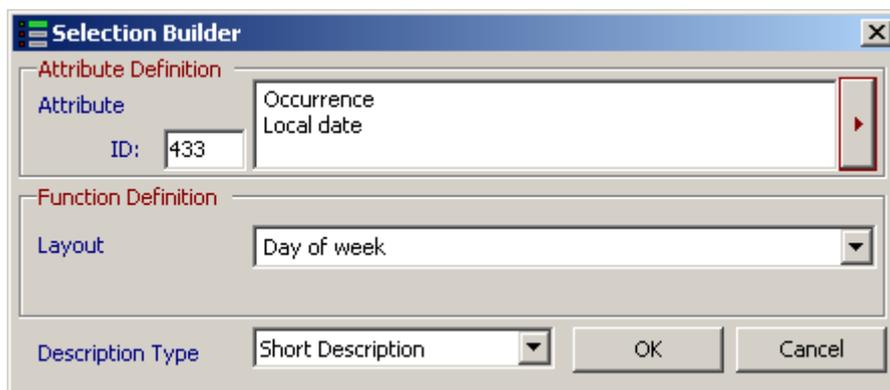
Some ECCAIRS Applications, e.g. Data Manager, ([see page 155](#)), use a Selection Edit panel within the "Query" dialog to select a list of Attributes.

Other ECCAIRS Applications, e.g. Grapher ([see page 113](#)), use directly a Selection dialog to select single Attributes.

7.5.2. SELECTION DIALOG

The Selection dialog let you select particular Attribute Values, for instance to populate x, y or z axis values in a graph.

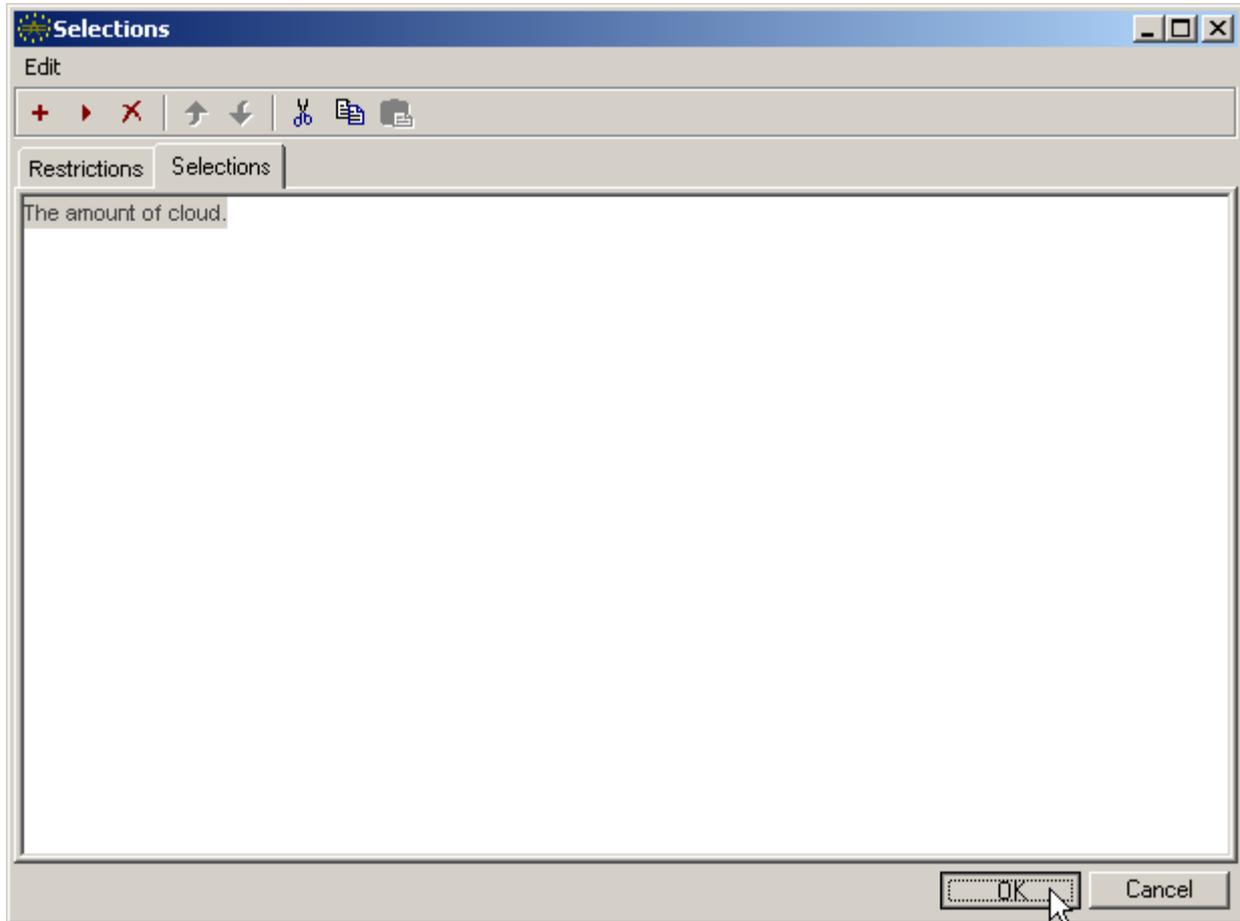
If you have to select a single Attribute, then the system just uses "Selection Builder" dialog directly. This is what happens for instance inside the "ECCAIRS Grapher" application.



The "Selection Builder" dialog is basically the same as the "Attribute Definition" part of the "Criterion Builder" dialog ([see page 291](#)).

7.5.3. SELECTION PANEL INSIDE THE QUERY EDITING WINDOW

If you have to select more than one Attribute at a time, out of the Occurrences obtained by a Query restriction, then you have a specific "Selections" panel inside a "Query (restrictions)" window.



Be aware that when selecting multiple Attributes, specific rules apply when combining different functions for the Attributes. For example when one Attribute is used for grouping the other Attribute must also have specific functions applied (count, for instance).

7.6. CRITERION BUILDER DIALOG

A Criterion is an expression involving 3 elements:

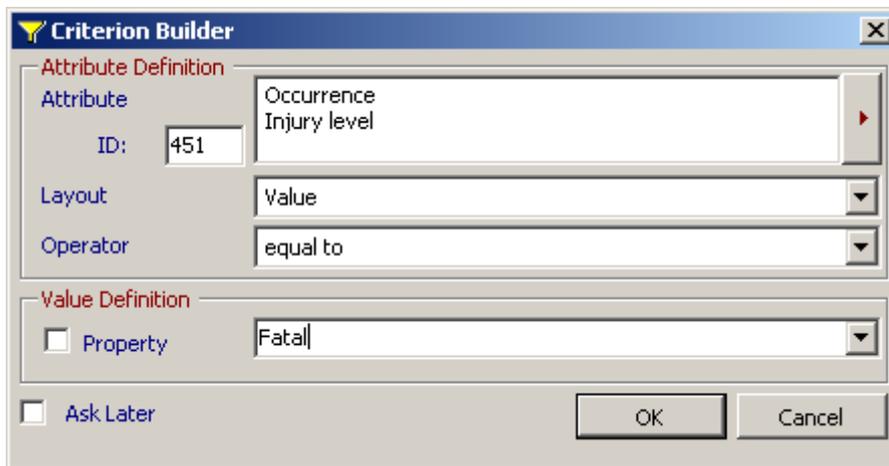
- ▶ **Attribute** - for instance: *State/Area* (ADREP, Air Safety application domain)
- ▶ **Operator** - for instance: *equal to*
- ▶ **Value** - for instance: *Andorra*

For instance:

equal-to Andorra

```
{
  State or area of occurrence {Occurrence} [Value] equal to 'Andorra'
}
```

The "Criterion Builder" dialog is invoked to add/edit a Criterion by:



- ▶ Double-clicking on an existing Criterion
- ▶ Selecting "**Edit > Edit**" menu-item (or "Right-click-menu > Edit" or Toolbar edit icon-button) when focus is on a Criterion.
- ▶ Selecting "**Edit > Add Criterion**" menu-item (or "Right-click-menu > Add Criterion" or Toolbar add icon-button) when the focus is on a logical operator or on after a left bracket..

The "Criterion Builder" dialog allows to define the three elements for a Query Criterion:

- ▶ **Attribute and Layout** ([see page 291](#)).
- ▶ **Operator** ([see page 292](#)).
- ▶ **Reference Value Specification** ([see page 292](#)).

To exit the dialog you use the two buttons at the bottom:

- ▶ **OK** - to accept the Criterion specified/edited.
- ▶ **Cancel** - to discard the Criterion editing.

7.6.1. CRITERION ATTRIBUTE

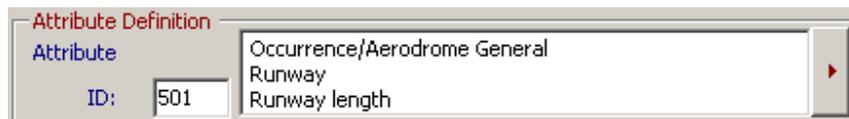
You have to specify one of the Attributes included in the Repository Taxonomy.

A full qualified Attribute identification involves specifying the full Entity-path to the Attribute, starting from the Occurrence, which is the "root" Entity.

You can specify an Attribute either by:

- ▶ Using the ECCAIRS standard "Attribute Selection" dialog ([see page 293](#)).
Once selected, both the "Id" field and the Entity-path and Attribute get completed/filled-in.
- ▶ Entering directly the Attribute "Id" numerical code in the Attribute Id field.

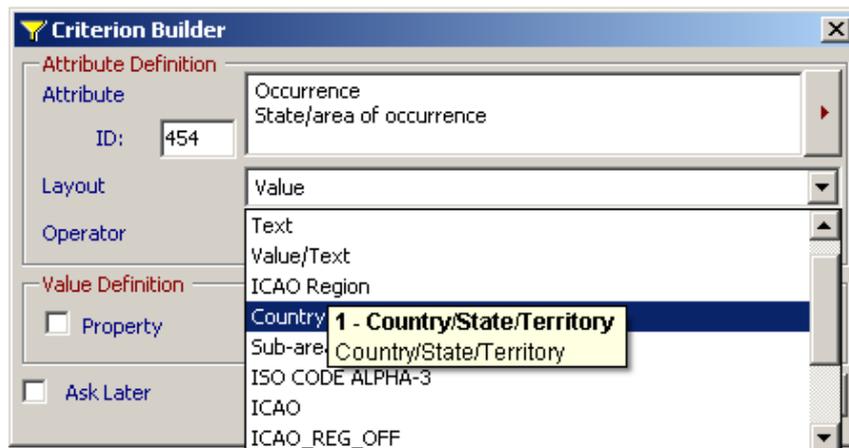
Once selected, both the "Id" field and the Entity-path and Attribute get completed/filled-in.



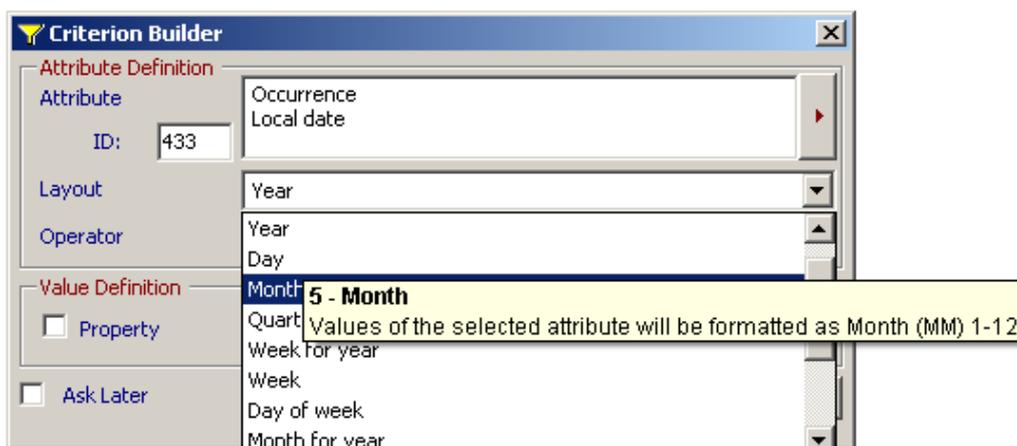
Attribute Layout

You also have to specify the Layout for the Attribute, choosing it from an Attribute-dependent drop-down list. The Layout specifies which aspect of the Attribute to consider in the Criterion.

For instance which level, for multi-level Attribute values, or which Attribute instance, for Attributes which may belong to more than one instance of a Topic (e.g. the Attribute of which of the aircraft/ship/train involved in the Occurrence).



But can also be which sub-part, alias or formatting to consider. For instance which part of a date/time Attribute.



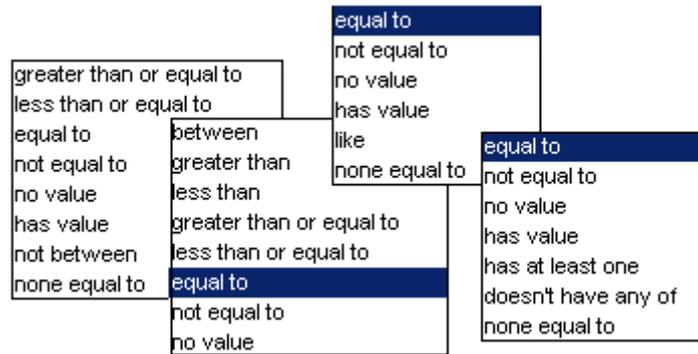
7.6.2. CRITERION OPERATOR

The Operator can be chosen from the drop-down list proposed in the dialog.

This can be chosen from the drop-down list proposed in the dialog.

The types of operators proposed varies according to the Attribute selected.

See the picture below for some sample Operators.



The operators may require as reference value:

- ▶ No specific value (i.e. the “has no value” operator)
- ▶ A single value (e.g. “equal to”, “less than”, ...)
- ▶ Two values (e.g. “between”, “not between”, ...)
- ▶ Multiple values (e.g. “has at least one”, ...).

7.6.3. REFERENCE VALUE SPECIFICATION

Reference Attributes Values are selected in various ways, according to the type of Value ([see page 301](#)).

8. ENTER VALUES AND SELECT ATTRIBUTES

In all the ECCAIRS Reporting System applications you will need to select Attributes and Attribute Values and also enter Attribute Values.

This section deals with the common dialog windows and functions used to perform the following actions:

- ▶ Select an Attribute.
- ▶ Select an Attribute Value in Multiple Level Value Lists.
- ▶ Select Multiple Attributes Values.
- ▶ Specify Attribute Values, both as reference Values in Queries and to enter Values for the Occurrence Attributes.

8.1. SELECT AN ATTRIBUTE

The "Attribute Selection" dialog let you specify one of the Attributes of the Repository Taxonomy. The Attributes are displayed under the Entity they belong to.

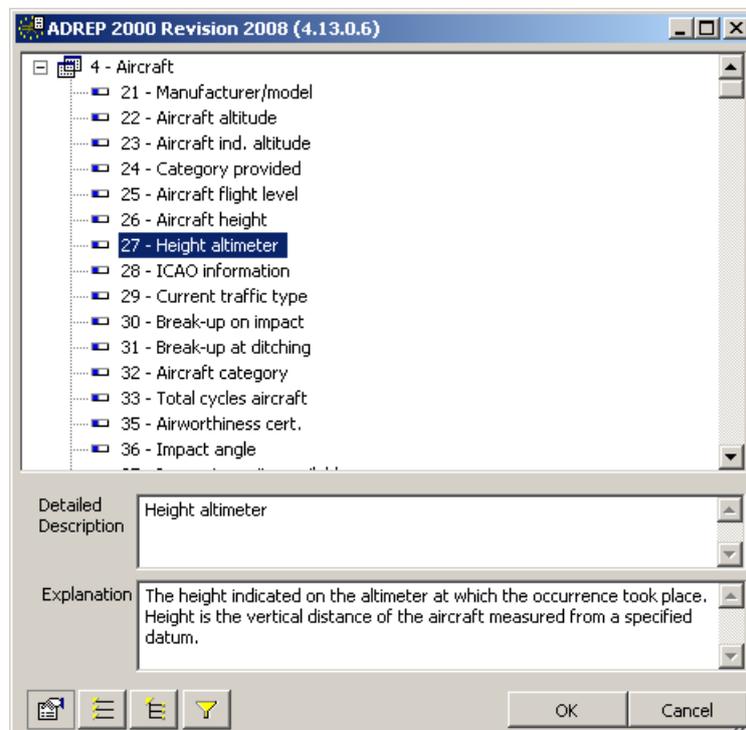
All Entities are child Entities of the "root" Entity, the Occurrence, and may have their own child Entities.

Initially the Attribute tree is displayed in fully expanded mode, i.e. all Attributes of all Entities are displayed.

Using the four bottom leftmost buttons you can:



- ▶ **Display Attribute Descriptions** - display at the bottom of the dialog the "Detailed Description" and the "Explanation" of the Attribute currently selected, as specified in the Taxonomy.



- ▶ **Collapse Attribute tree** - collapse all branches of the Attribute tree. Only the root Entity will be shown.



- ▶ **Expand Attribute tree** - expand all levels of the Attribute tree. All the Attributes are displayed.



- ▶ **Expand/Collapse child Entities/Attributes** - you can also expand and collapse single Entity branches:
 - To display Entity branches click on the "+" symbol used to mark the value node in the "Attribute-node" within the panel.
The Attribute node gets then marked with the "-" symbol.
 - Conversely, to collapse an Entity branch level, click on the "-" symbol.
The Attribute node gets then marked with the "+" symbol.
- ▶ **Filter Attribute List** - you can use the funnel-shaped yellow button to filter the Attribute list. See next page for details.

To exit the "Attribute Selection" dialog click:

- ▶ **OK** - to confirm the Attribute selected.
- ▶ **Cancel** - to exit without any selection.

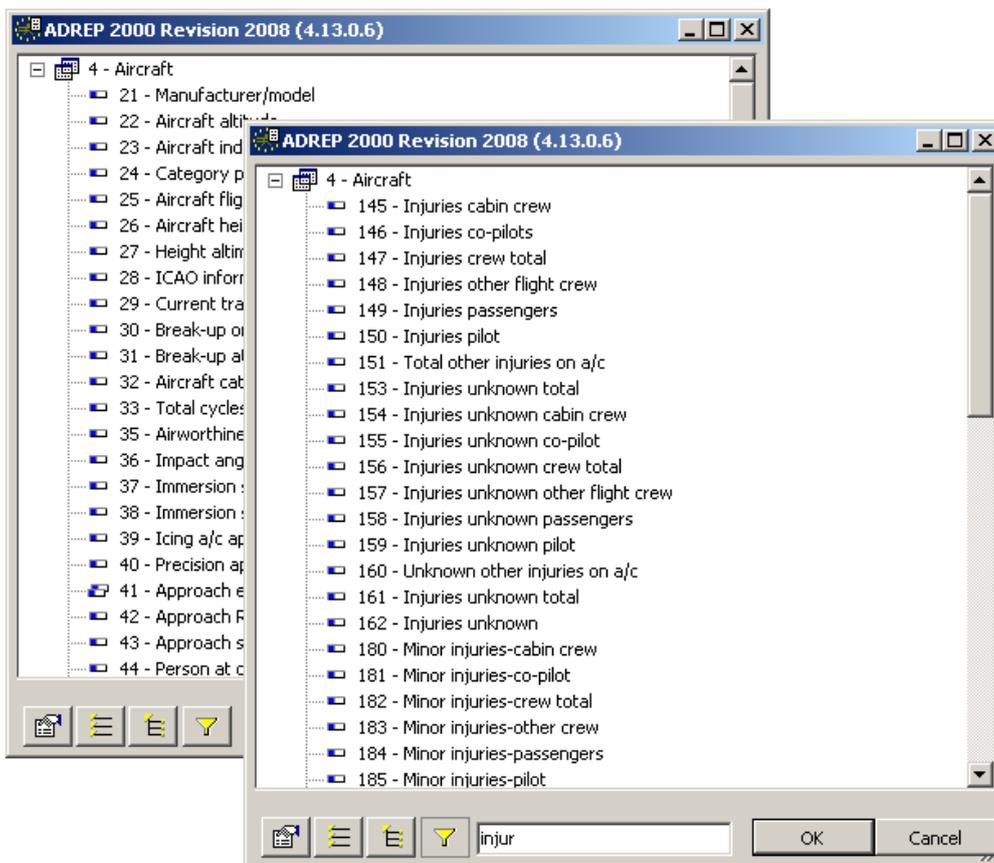
8.1.1. ATTRIBUTE LIST FILTERING

To apply a display filter on the Attribute list:

- ▶  Click the yellow funnel-shaped icon-button at the bottom of the Attribute tree. An empty field shows up at the right of the icon.



- ▶ Type in the filter text you wish and terminate with the RETURN keyboard key. The Attribute tree will now show only the Attributes and Entities containing the filtering text.

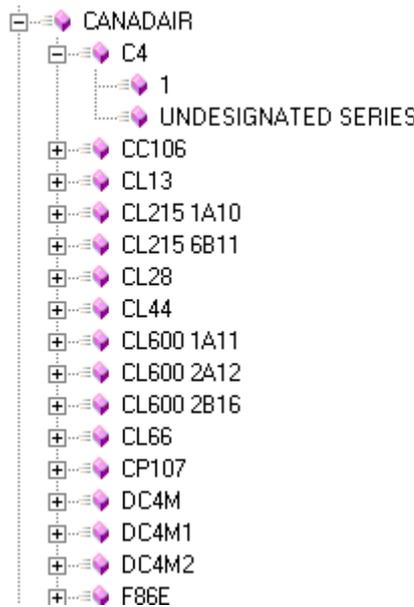


To remove the filter:

- ▶ Click again the yellow funnel-shaped icon-button. The text filtering field disappears and the whole set of Attributes is displayed in the tree.

8.2. SELECT AN ATTRIBUTE VALUE IN MULTIPLE LEVEL VALUE LISTS

The "Value Tree navigation" panel displays the values included in the Value List. By default the panel displays all the values currently included in the Value List. The values are displayed in a tree-view arrangement, which allows to handle multi-level Value Lists.



You can exploit the "Values display filtering" funnel-shaped button to select which values to display and how to display the Value tree and its branches ([see page 297](#)).

The multiple selection dialog also offers a "show-value-detail" icon-button to toggle on/off display of value long descriptions, explanations and value aliases.

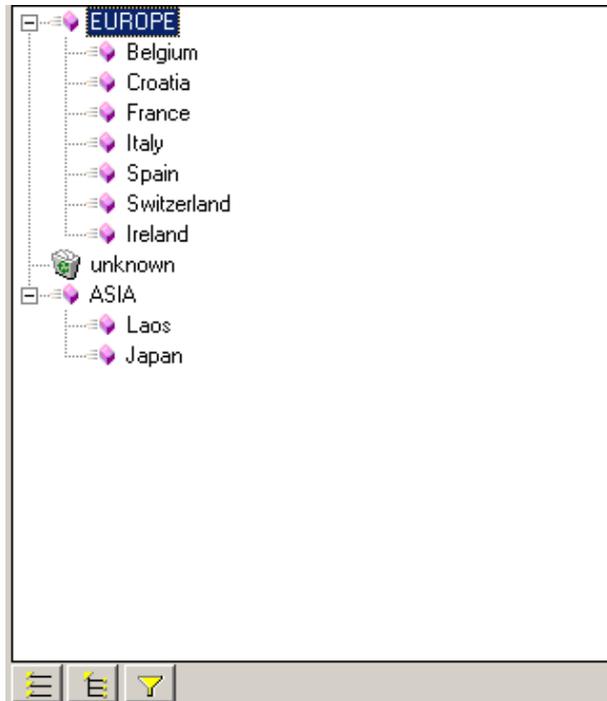


To exit the dialog click:

- ▶ **OK** - to confirm the Attribute Value selected.
- ▶ **Cancel** - to exit without any selection.

8.2.1. VALUES DISPLAY FILTERING

By default the "Value Tree Navigation" panel displays all the values currently included in the Value List.



Clicking on the filter icon-button at the bottom part of the left panel opens a filter field where you can enter the filter text string.

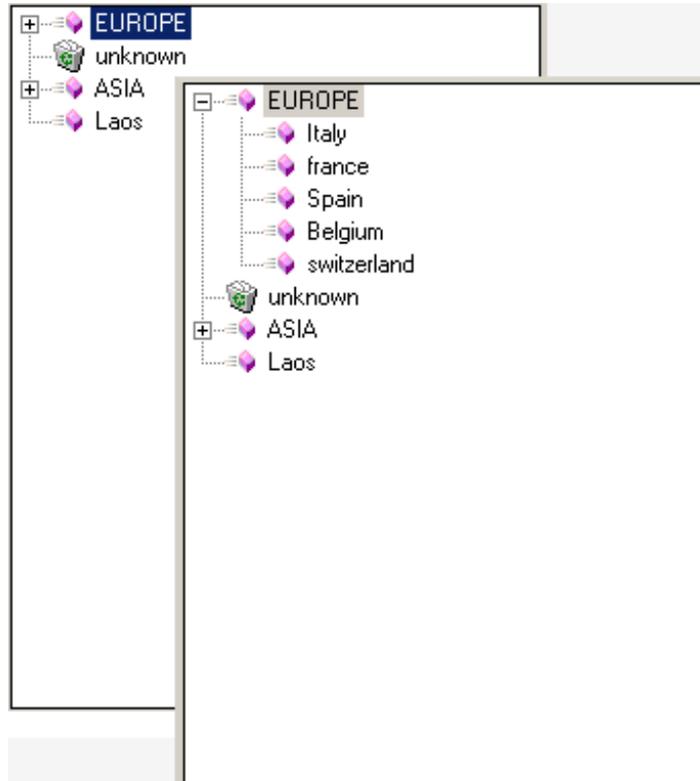
Now only the values that match the filter are displayed.



You can also expand/collapse single branches of the Value tree (see next page).

8.2.2. EXPANDING/COLLAPSING VALUE BRANCHES

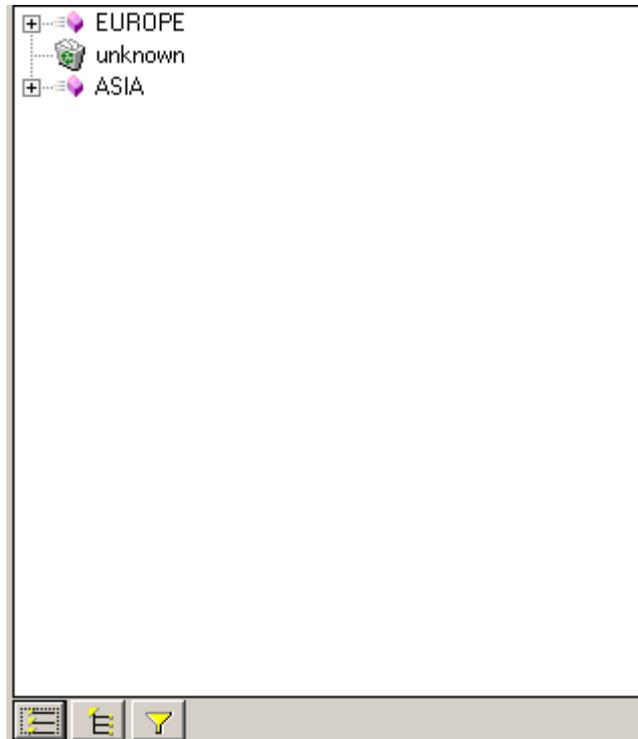
Expand and collapse single value branches, i.e. the value branch to which the currently selected value belongs.



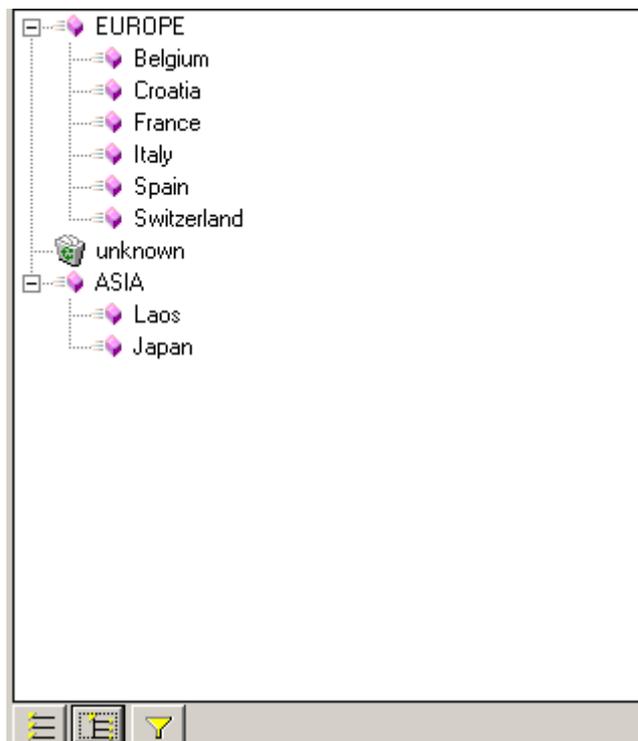
- ▶ To display sub-level value branches click on the "+" symbol used to mark the value node in the "value-node" within the values pane.
The value node gets then marked with the "-" symbol.
- ▶ Conversely, to collapse a value branch level, click on the "-" symbol.
The value node gets then marked with the "+" symbol.

8.2.3. EXPANDING/COLLAPSING ALL VALUE BRANCHES

- ▶ Use the left-panel bottom "collapse" icon-button to collapse all the value branches at a time.

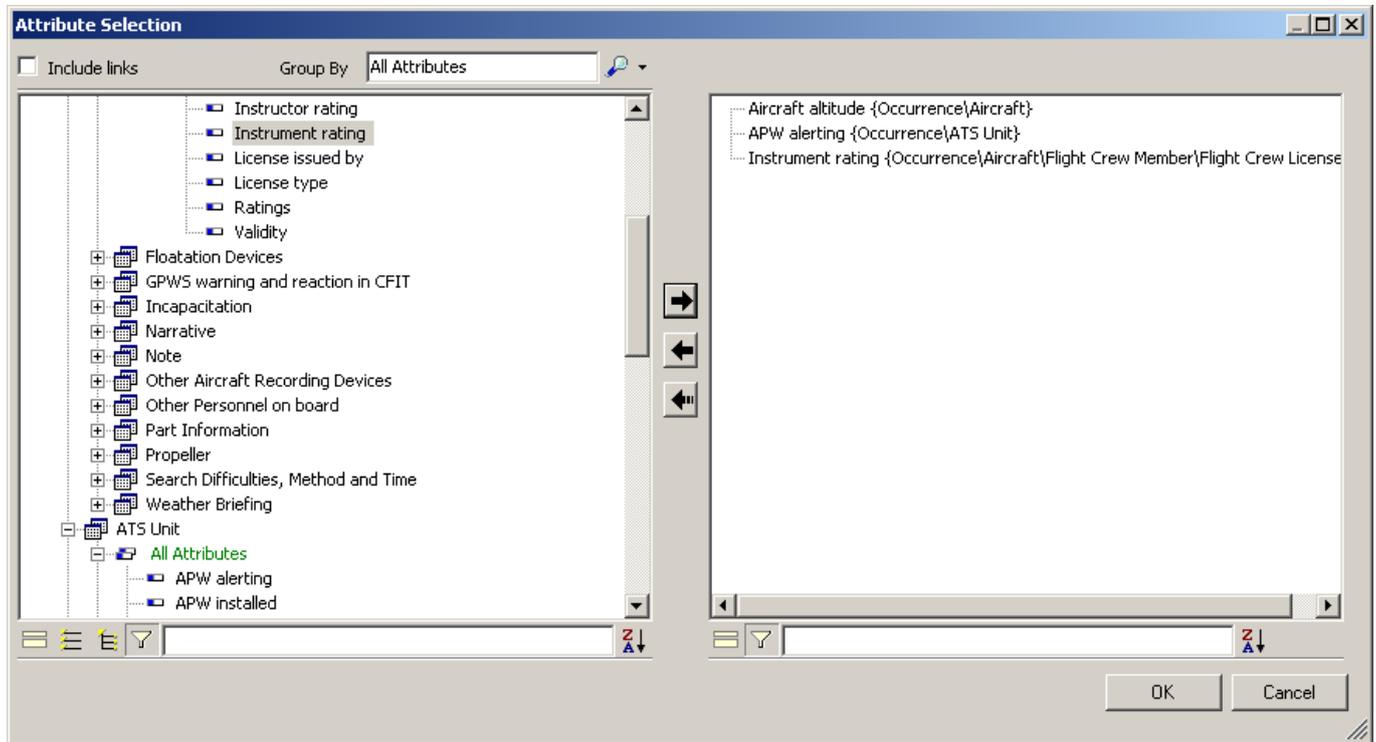


- ▶ Use the left-panel bottom "expand" icon-button to expand all the value branches at a time.



8.3. SELECT MULTIPLE ATTRIBUTES

When more than one Attribute need to be specified the system proposes a multiple selection dialog window.



In the dialog you can add and remove Attributes to a selection list-panel (on the right), choosing then in the Attribute tree panel (on the left).

You can use the standard Attribute tree navigation, display and filtering functions ([see page 293](#)).

To exit the dialog there are two buttons at the bottom:

- ▶ **OK** - to save the changes made so far.
- ▶ **Cancel** - to discard the changes made so far.

8.4. ENTER ATTRIBUTE VALUES

There are different ways you can enter the Attribute Value(s):

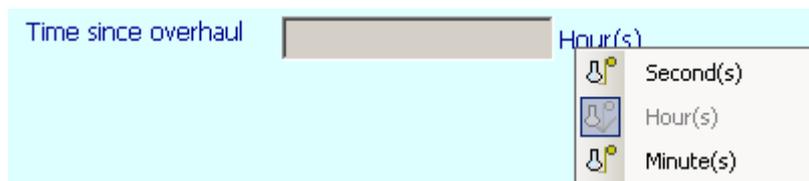
- ▶ Free Text or Value
- ▶ Selection in a Predefined Value List
- ▶ Multiple Predefined Values Selection
- ▶ Multi-level Predefined Value Selection
- ▶ User Properties Values
- ▶ Custom Case/Wizard-driven Attribute assignment
- ▶ Ask Value at Query Run Time (only for Queries)

8.4.1. FREE TEXT OR VALUE

The User types in the Value needed, terminated by the [RETURN] key (or by moving to another Attribute with either the [TAB] key or by moving the mouse pointer). The system just checks that data entered is coherent with the type of data expected (numerical, alphanumerical, .etc), and signals, if appropriate, error warnings by cancelling the incorrect input data and issuing an alarm sound (bell sound).

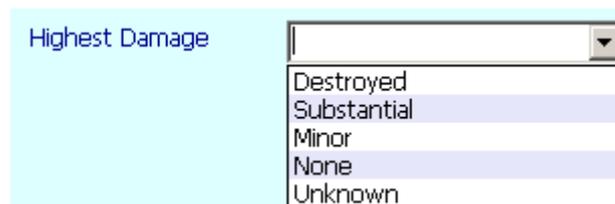


Clicking with the mouse right-button on any Attribute measurement unit will display a set of alternate units available. Changing the measurement unit of an Attribute already (filled in, specified), changes its Value accordingly.



8.4.2. PREDEFINED VALUE SELECTION

The User chooses among one of the predefined Attribute Values proposed in a drop-down list.

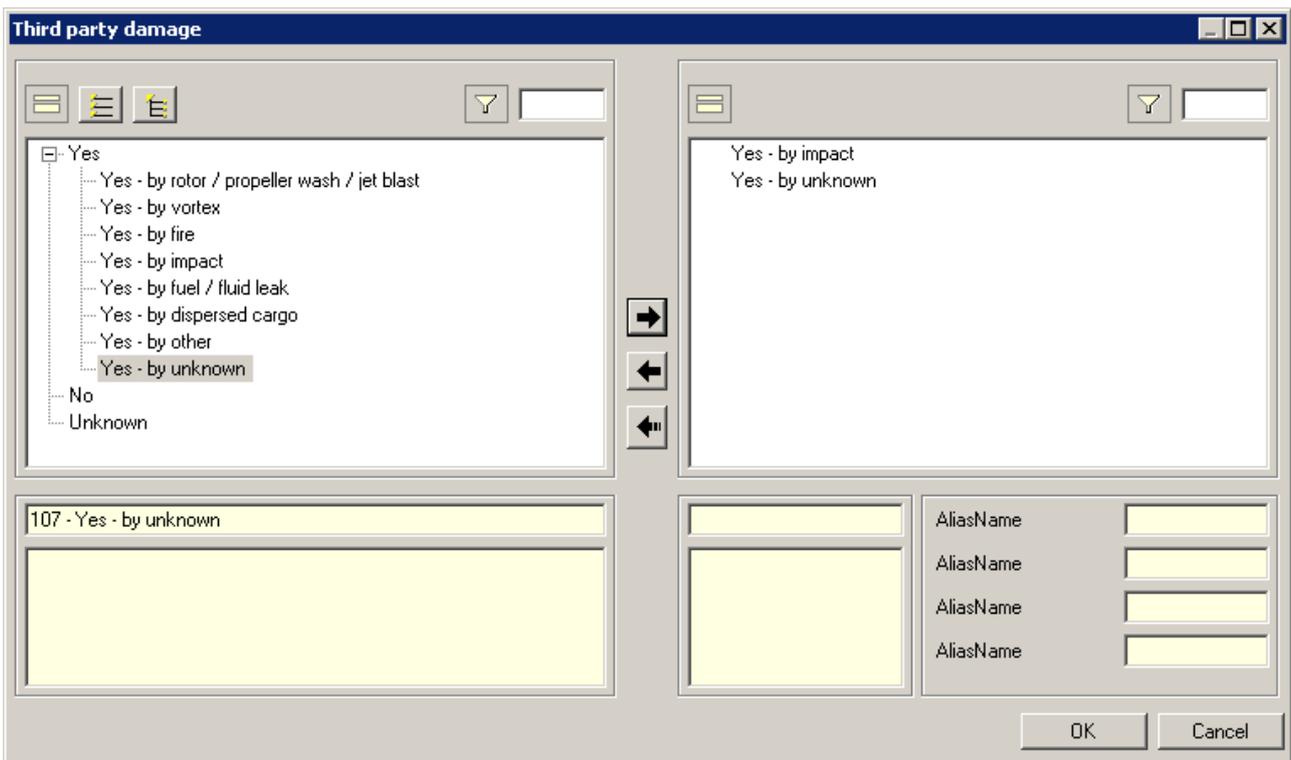


8.4.3. MULTIPLE PREDEFINED VALUES SELECTION

When more than one Attribute Value may be specified, out of a predefined Value List, the system proposes a multi-value selection dialog window.



In the dialog you can add and remove Attribute Values to a selection list-panel (on the right), choosing then in the Attribute Value List panel (on the left).



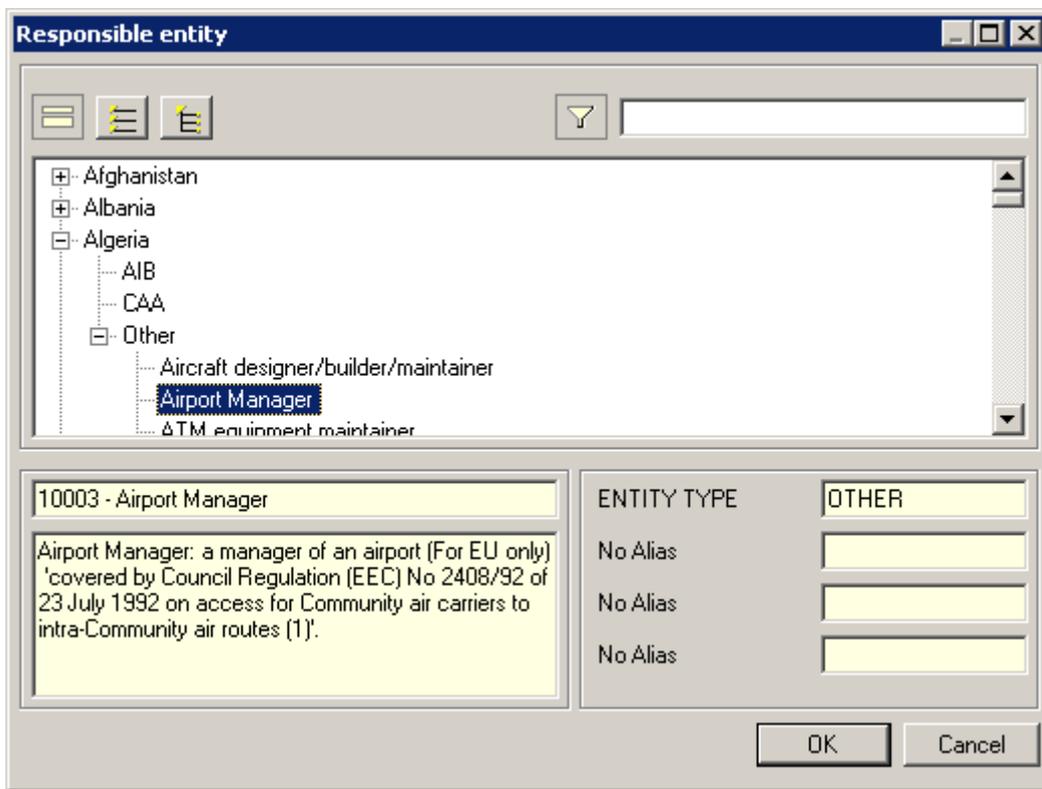
The Value selection panes shows Value Lists, including multiple-level ones (Value Trees). You can use the standard Value Tree navigation, display and filtering functions ([see page 296](#)).

8.4.4. MULTI-LEVEL PREDEFINED VALUE SELECTION

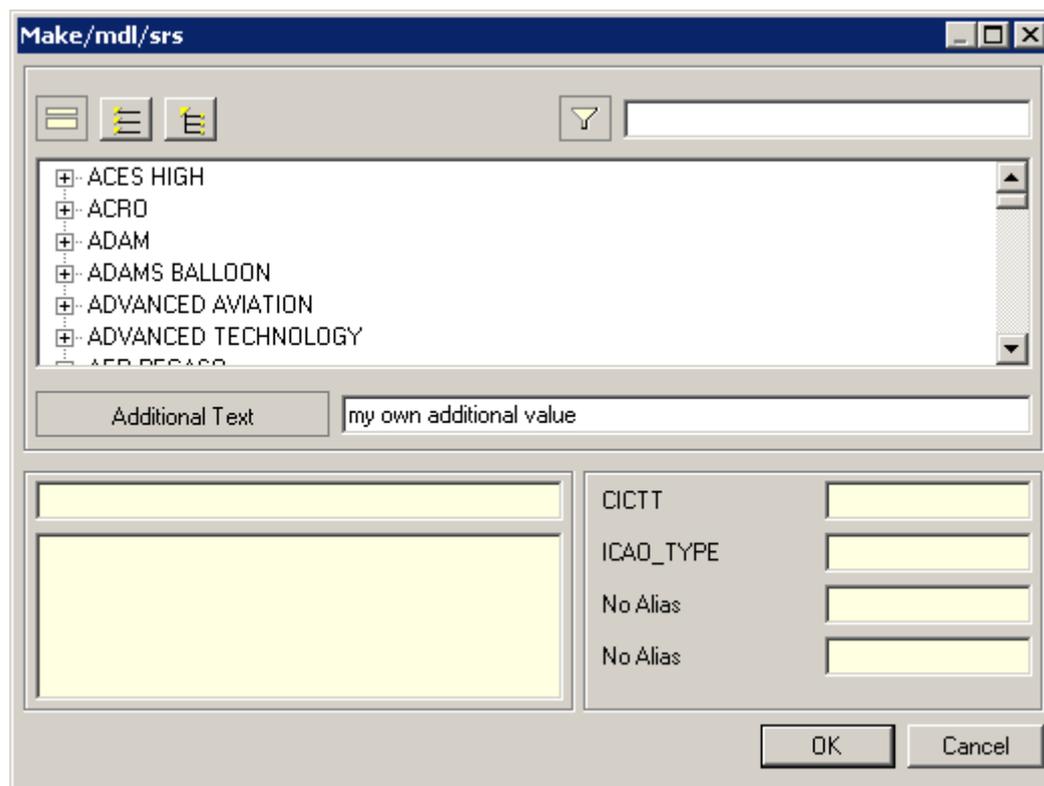
When you have to select Attribute Values out of a multiple-level Value List the system proposes a specific dialog box.



In this hierarchical selection and search dialog you can select the Value using the standard Value Tree navigation, display and filtering functions ([see page 296](#)).



You can also enter an **Additional Value** (i.e. not included in the predefined Value tree) if the Attribute allows for it . This is achieved by clicking on the " Additional Text" button and entering a Value in the text box on its right.

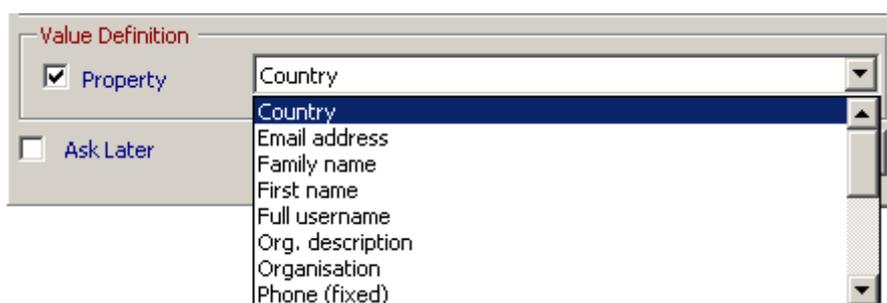


8.4.5. USER PROPERTIES VALUE

If the Attributes foresees this option you may use one of the User properties as Value.

The User properties are set in the User profile of the Repository to which you are logged in. Also you can edit these properties using the "Session > My Profile" menu-item, within the ECCAIRS Browser application

Choose the "Property" option and select the specific property in the drop-down list.

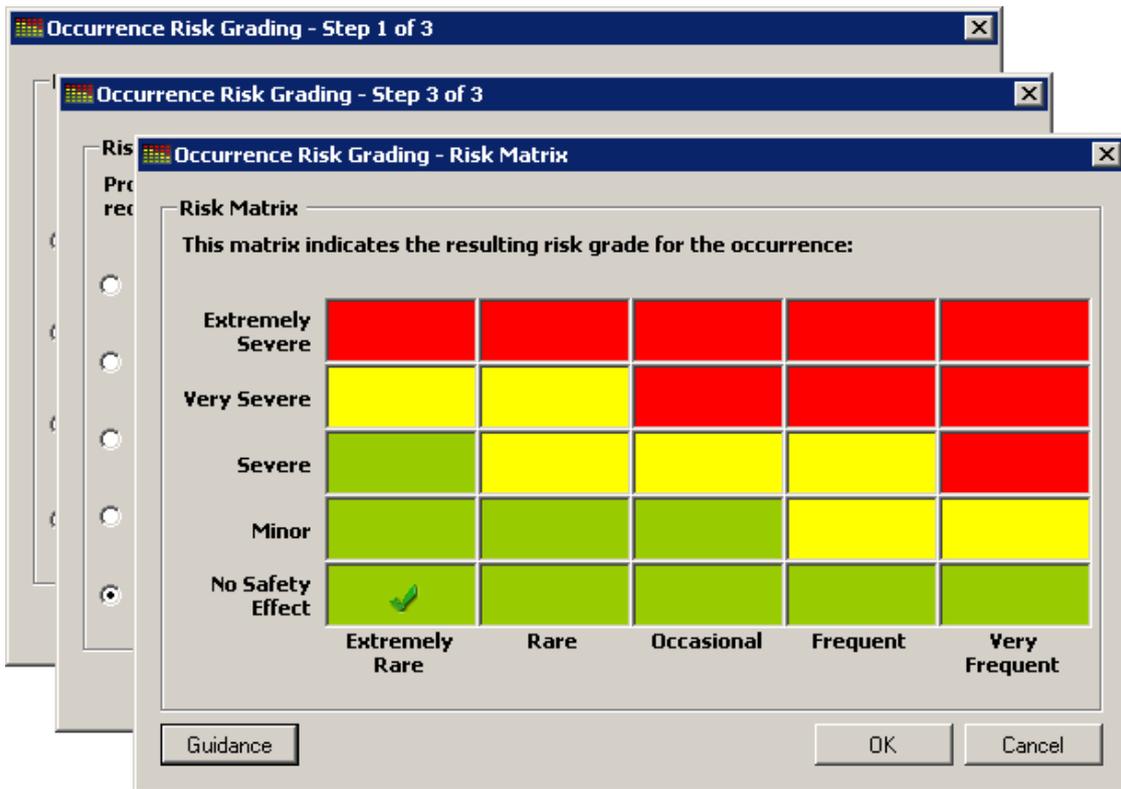


8.4.6. CUSTOM CASES/WIZARD-DRIVEN ATTRIBUTE ASSIGNMENT

Some specific Attribute may need to be set is a non-standard way. The ECCAIRS Browser allows the customisation , among others, of any Attribute modification/creation procedure. For instance the Value an Attribute may be a result of the computation made on a set of values, evaluations, etc.

Risk grade

Special input procedures are activates, for instance a wizard-driven input.



The system will assign itself the resulting Value to the Attribute.

Risk grade

8.4.7. ASK VALUE AT QUERY RUN TIME

When specifying Reference Values for a Query you may also choose to specify the Value later at run time.

On executing the Query the system will ask you to specify the Value.

Choose the "Ask later" option to activate this option.

Ask Later

