

DI Report Writer

FOR DI TRAUMA REGISTRY SYSTEMS STORING XML DATA



Revision 2013-2018

For All Digital Innovation, Inc. Products and Systems

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Introduction

Overview

The DI Report Writer is a reporting tool used to create reports and analysis from the data entered into the Trauma Registry system.

Support Information

If you need technical support, please contact the Digital Innovation, Inc. Technical Support staff using one of the options below:

Call: 800-344-3668, Option 4

Email: support@dicorp.com

Online: <http://www.dicorp.com/contact-us/request-technical-support/>

Using This Guide

The DI Report Writer User Guide explains common tasks performed within the DI Report Writer.

In 'The Basics' section of this User Guide, the user is oriented with basic navigation within the software.

In the 'Report Writer Tools' section of this User Guide, the user is provided with detailed instructions on how to use each of the DI Report Writer tools.

In the 'Running Reports' section of this User Guide, the user learns how to combine all of the reporting tools to produce valuable output.

User Guide Conventions

[Button]	Square brackets are used around text when referring to a button.
"Report Writing Object"	Double-quotes are used around text when referring to Screens, Menu Choices, Fields, or Windows.
'User Guide Section'	Single-quotes are used around text when referring to a section of the Report Writer User Guide.
Note:	Notes contain additional tips and other information regarding the specified topic.
RW	This is an abbreviation for "DI Report Writer"
DI	This is an abbreviation for Digital Innovation, Inc.

Installation & Configuration

A separate software Installation Guide is included with the DI Report Writer installation. Please refer to this document for installation and configuration instructions.

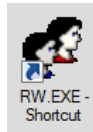
The Basics

This section provides an overview of the following DI Report Writer functions:

- Login to the software
- Exiting the software
- Report options and tools on the "Welcome" screen and menu bar
- The DI Report Writer "Manager" screens
- The DI Report Writer "Data Elements" screens

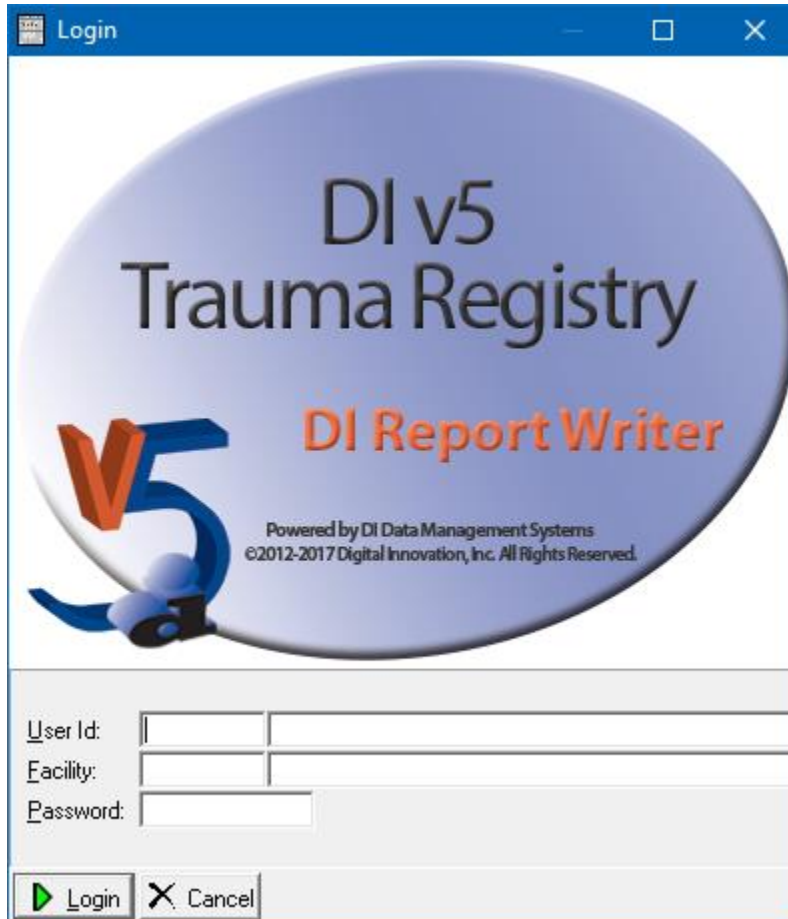
Login to the Software

1. Select the RW.exe shortcut on the computer desktop.



2. The “Login” screen opens. Enter the Trauma Registry User ID and Password (case sensitive) on the “Login” screen.

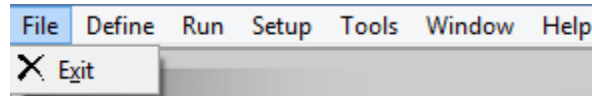
Note: In certain software configurations, a Facility ID and Facility Name is displayed on the “Login” screen.

The image shows a Windows-style login window titled 'Login'. The main area features a large blue oval with the text 'DI v5 Trauma Registry' and 'DI Report Writer' in orange. Below this, it says 'Powered by DI Data Management Systems ©2012-2017 Digital Innovation, Inc. All Rights Reserved.' At the bottom, there are three input fields: 'User Id:', 'Facility:', and 'Password:'. The 'User Id' field is split into two parts. Below the fields are two buttons: 'Login' (with a green play icon) and 'Cancel' (with a red X icon).

3. Select **[Login]**.
4. The Trauma Registry System Administrator defines DI Report Writer permissions for each user account in the V5 Admin Module of the Trauma Registry. If a login attempt is unsuccessful, contact the Trauma Registry System Administrator to verify access.
5. Upon a successful login, the DI Report Writer “Welcome” screen opens.

Exiting the Software

Select “Exit” from the “File” menu.



Alternatively, select the [X] in the upper right hand corner of the Report Writer screen to close the application.

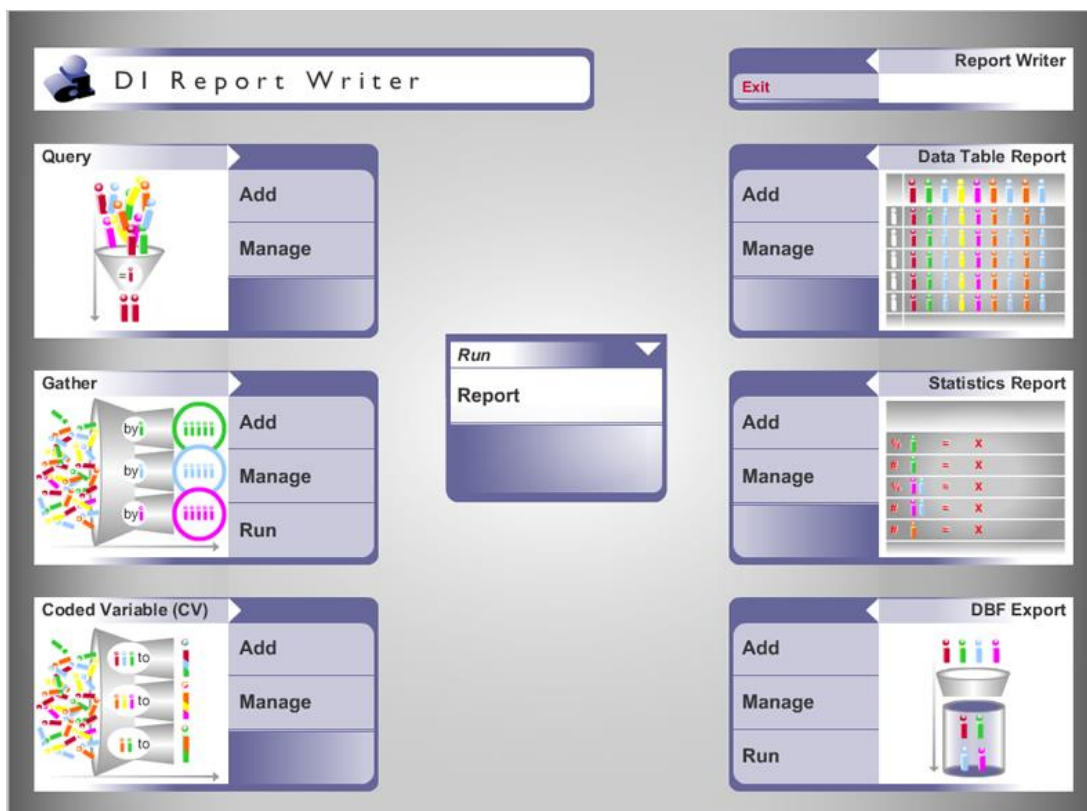


Alternatively, select [Exit] from the “Welcome” screen.



The Welcome Screen

This section describes how to access each of the DI Report Writer tools available on the “Welcome” screen. Detailed instructions on the use of each tool is included in the ‘Report Writer Tools’ section of the User Guide.

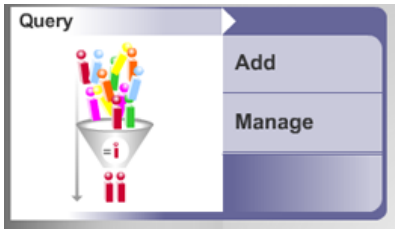


Query

A Query is used to define a subset of records.

Example: Gender is equal to Female is a Query.

- Select **[Add]** to add a Query.
- Select **[Manage]** to access the “Query Manager”. Instructions on using the “Query Manager” are provided in the ‘Understanding the DI Report Writer “Manager” Screens’ section of this User Guide.



Gather

A Gather is used to divide report output into groupings.

Example: Use a Gather to group report output by Admitting Service menu options.

- Select **[Add]** to add a Gather.
- Select **[Manage]** to access the “Gather Manager”. Instructions on using the “Gather Manager” are provided in the ‘Understanding the DI Report Writer “Manager” Screens’ section of this User Guide.
- Select **[Run]** to create a Gather specification and execute the Gather specification with a Query.

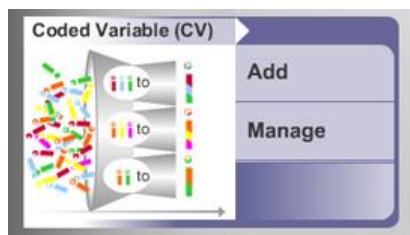


Coded Variable

A Coded Variable is used to define and group a range of values.

Example: A user may create a Coded Variable for the age groups of Pediatric, Adult, and Geriatric.

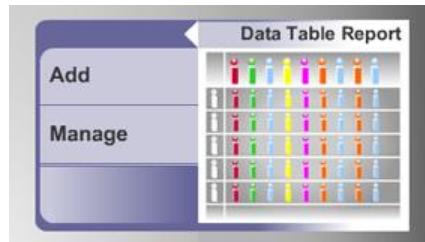
- Select **[Add]** to add a Coded Variable.
- Select **[Manage]** to access the “Coded Variable Manager”. Instructions on using the “Coded Variable Manager” are provided in the ‘Understanding the DI Report Writer “Manager” Screens’ section of this User Guide.



Data Table Report

A Data Table Report is similar to a spreadsheet. Columns in a Data Table Report contain data elements. Rows contain the details of those data elements.

- Select **[Add]** to add a Data Table Report.
- Select **[Manage]** to access the “User Report Manager”. Instructions on using the “User Report Manager” are provided in the ‘Understanding the DI Report Writer “Manager” Screens’ section of this User Guide.



Statistics Report

A Statistics Report is a report providing a summary that uses mathematical functions.

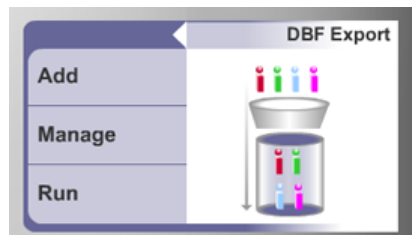
- Select **[Add]** to add a Statistics Report.
- Select **[Manage]** to access the “User Report Manager”. Instructions on using the “User Report Manager” are provided in the ‘Understanding the DI Report Writer “Manager” Screens’ section of this User Guide.



DBF Export

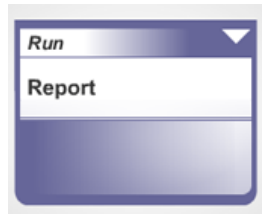
The DBF Export creates a database file (.dbf) to use in other database management systems. It may contain a single relational table, allowing the user to define and translate data into a database model.

- Select **[Add]** to add a DBF Export.
- Select **[Manage]** to access the “DBF Export Manager”. Instructions on using the “DBF Export Manager” are provided in the ‘Understanding the DI Report Writer “Manager” Screens’ section of this User Guide.
- Select **[Run]** to create a DBF Export specification and execute the DBF Export specification with a Query.



Run Report

Select this option to run reports. Detailed instructions on the “Run Report” process are provided in the ‘Running Reports’ section of this User Guide.

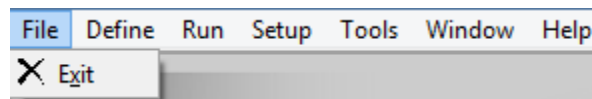


Welcome Screen Menu Bar

Reporting tools can also be accessed from the menu bar on the “Welcome” screen.

Exit

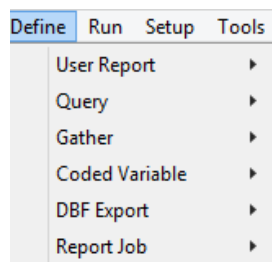
To close the Report Writer, select “Exit” from the “File” menu.



Define

The “Define” option allows users to add and manage User Reports, Queries, Gathers, Coded Variables, DBF Exports, and Report Jobs.

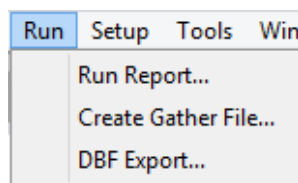
1. First, select the appropriate DI Report Writer tool from the “Define” menu (e.g. User Report).



2. Then select the appropriate option (e.g. “Add” or “Manage”) for each tool.

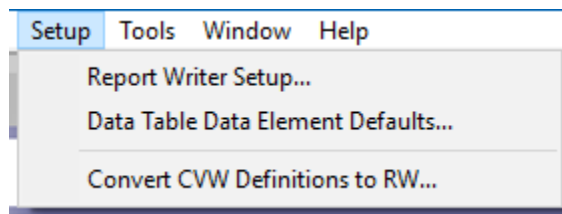


Run



- Select “Run Report...” to run reports. The Run Report screen will be displayed. Detailed information on the “Run Report” screen are included in the ‘Running Reports’ section of this User Guide.
- Select “Create Gather File...” to execute a Gather specification with a Query.
- Select “DBF Export...” to execute a DBF Export with a Query.

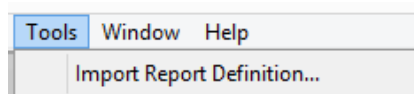
Setup



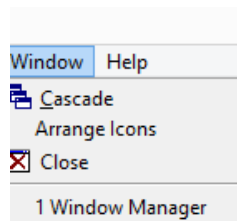
- Select “Report Writer Setup...” to configure the Report Writer connection to the Trauma Registry database. This step is typically completed as a part of the post-installation process after a software update. Instructions are provided with the software update.
- Select “Data Table Data Element Defaults...” to configure a set of default data elements on the “Quick Add” screen to create a Data Table Report. Detailed instructions on the “Quick Add” screen are provided in the ‘Adding Fields to the Quick Add Screen’ section of the User Guide.
- The “Convert CVW Definitions to RW...” option is not configured for use in the v5 DI Report Writer.

Tools

- Select “Import Report Definition...” to import DI Report Writer vocabulary into the DI Report Writer. This feature is used to import DI Report Writer vocabulary typically provided by DI Technical Support. Instructions are provided with each vocabulary package.

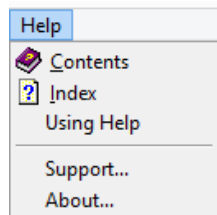


Window



Use the “Window” options to navigate open and minimized screens within the DI Report Writer.

- Select “Cascade” to organize multiple open windows in the DI Report Writer.
- Select “Arrange Icons” to organize multiple open windows that are minimized in the DI Report Writer.
- Select “Close” to close the active window in the DI Report Writer.
- Select “Window Manager” to view a list of open DI Report Writer objects.



- “Contents”, “Index”, and “Using Help” are not configured in the v5 DI Report Writer.
- Select “Support” to view technical support contact information and to access system information used by technical support.
- Select “About” to access DI Report Writer product information and copyright information.

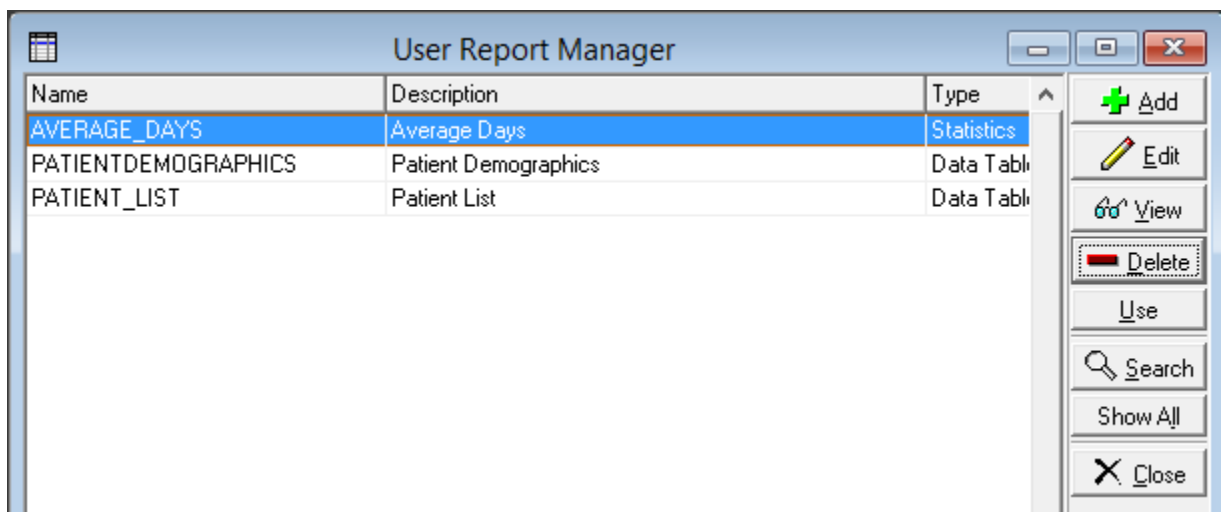
Understanding the DI Report Writer “Manager” Screens

The “Manager” screens in DI Report Writer allow a user to manage the items created within each DI Report Writer tool.


The “Manager” provides:

- A searchable list of all items configured by the DI Report Writer tool.
- The ability to add, edit, view, delete, and use all items configured by the DI Report Writer tool.

In the example below, the “User Report Manager” displays all of the data table, statistics, and .RDL reports.



- To add a new item, select the **[Add]** option.
- To edit an existing item, select the item in the “Manager” and then select the **[Edit]** option.
- To view an existing item, select the item in the “Manager” and then select the **[View]** option.
- To delete an existing item, select the item in the “Manager” and then select the **[Delete]** option.
- To use an existing item, select the item in the “Manager” and then select the **[Use]** option.
- Search items by selecting the **[Search]** option. The Search Screen opens.
 - Enter the search criteria and then select **[Search]** to perform the search.
 - Select **[Data Table]** to search only Data Table Reports.
 - Select **[Statistics]** to search only Statistics Reports.
 - Select **[RDL (Advanced)]** to search only .RDL reports.
 - Select **[Reset]** to clear the search screen. Select **[Cancel]** to close the search screen.
- Select **[Show All]** to display all items on the manager screen.
- Select **[Close]** to close the manager screen.



Search User Reports

Name:

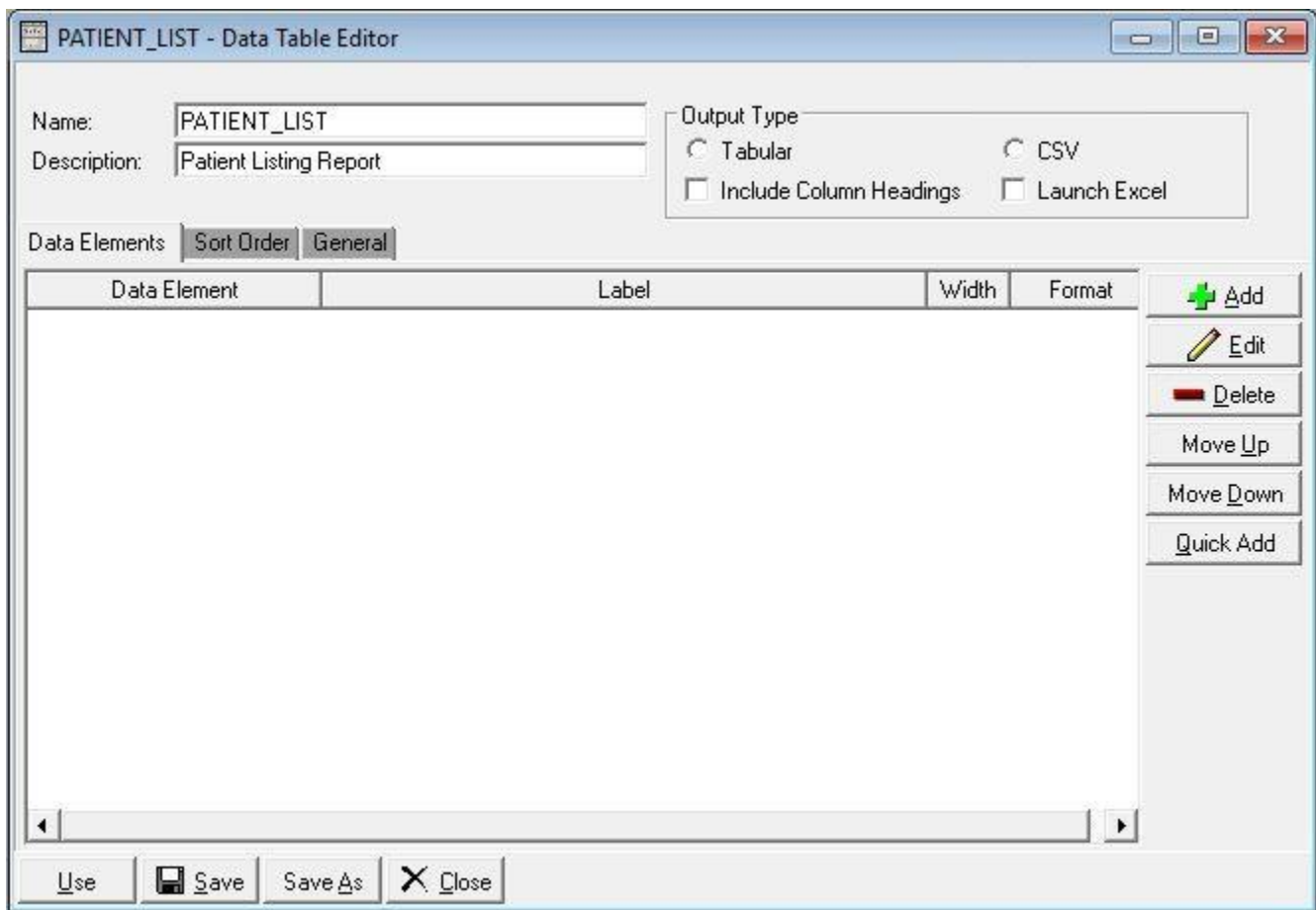
Description:

☐ Data Table
☐ Statistics
☐ RDL (Advanced)

Search
 Reset
 Cancel

Understanding the “Editor” Screens

Each DI Report Writer tool uses an “Editor” screen. The example below is the “Editor” screen for a Data Table Report.



PATIENT_LIST - Data Table Editor

Name:

Description:

Output Type
☐ Tabular ☐ CSV
☐ Include Column Headings ☐ Launch Excel

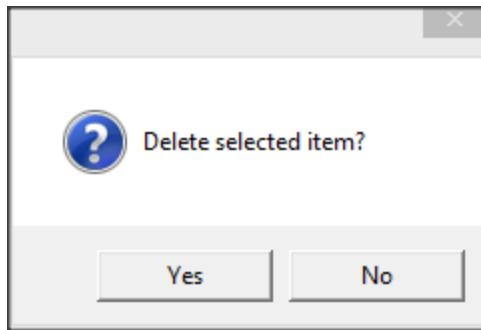
Data Elements **Sort Order** General

Data Element	Label	Width	Format
--------------	-------	-------	--------

Add
 Edit
 Delete
Move Up
Move Down
Quick Add

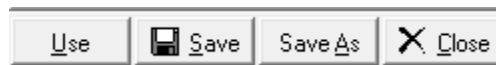
Use Save Save As Close

- Select the **[Add]** option to add a data element.
- To edit an existing data element, select the data element and then select the **[Edit]** option.
- To delete an existing data element, select the data element and then select the **[Delete]** option.
 - Select **[Yes]** or **[No]** on the pop up window displayed below.

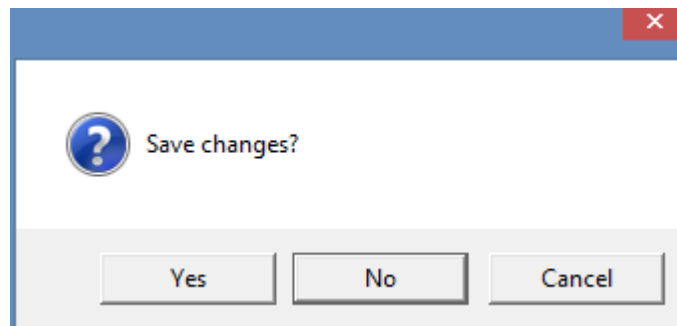


- To move an existing data element up and change the order of the data elements listed in the report, select the data element and then select the **[Move Up]** option.
- To move an existing data element down and change the order of the data elements listed in the report, select the data element and then select the **[Move Down]** option.

After edits are complete, select from one of the options at the bottom of the “Editor” screen:



- Select **[Use]** to use the reporting object.
- Select **[Save]** to save changes.
- Select **[Save As]** to save the report object with a different name.
- Select **[Close]** to exit the screen. Select **[Yes]** or **[No]** to save changes. Select **[Cancel]** to close this screen.

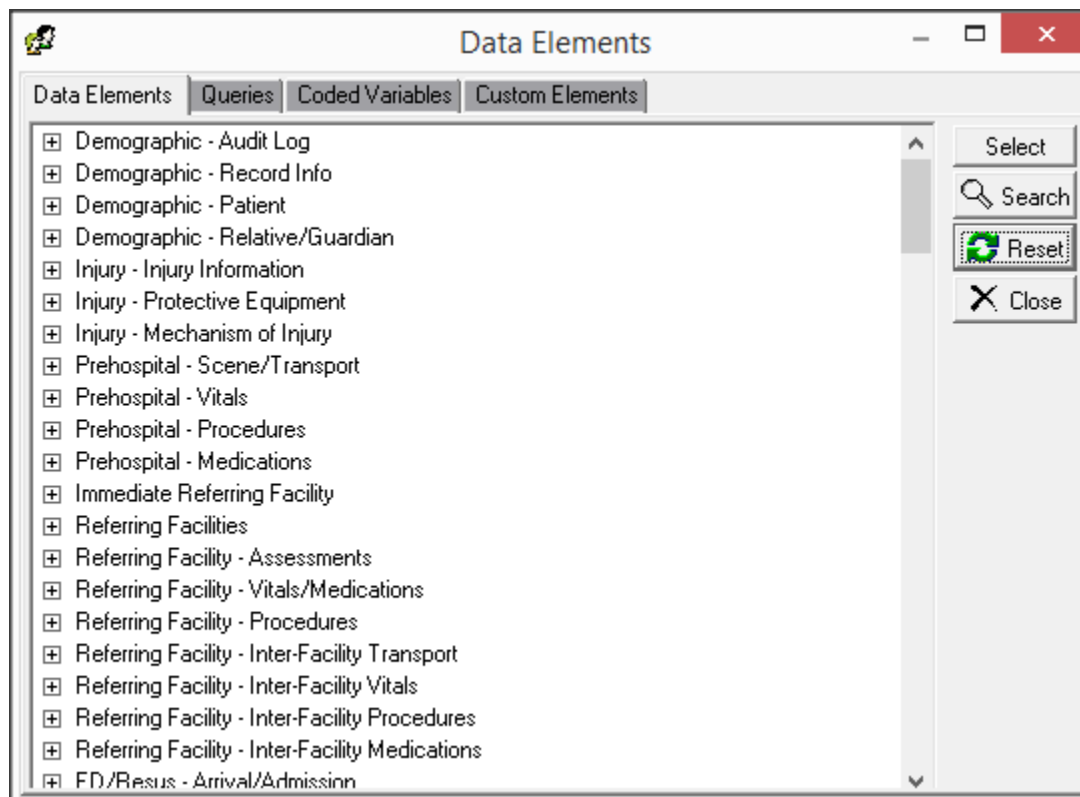


Using the “Data Elements” Screens

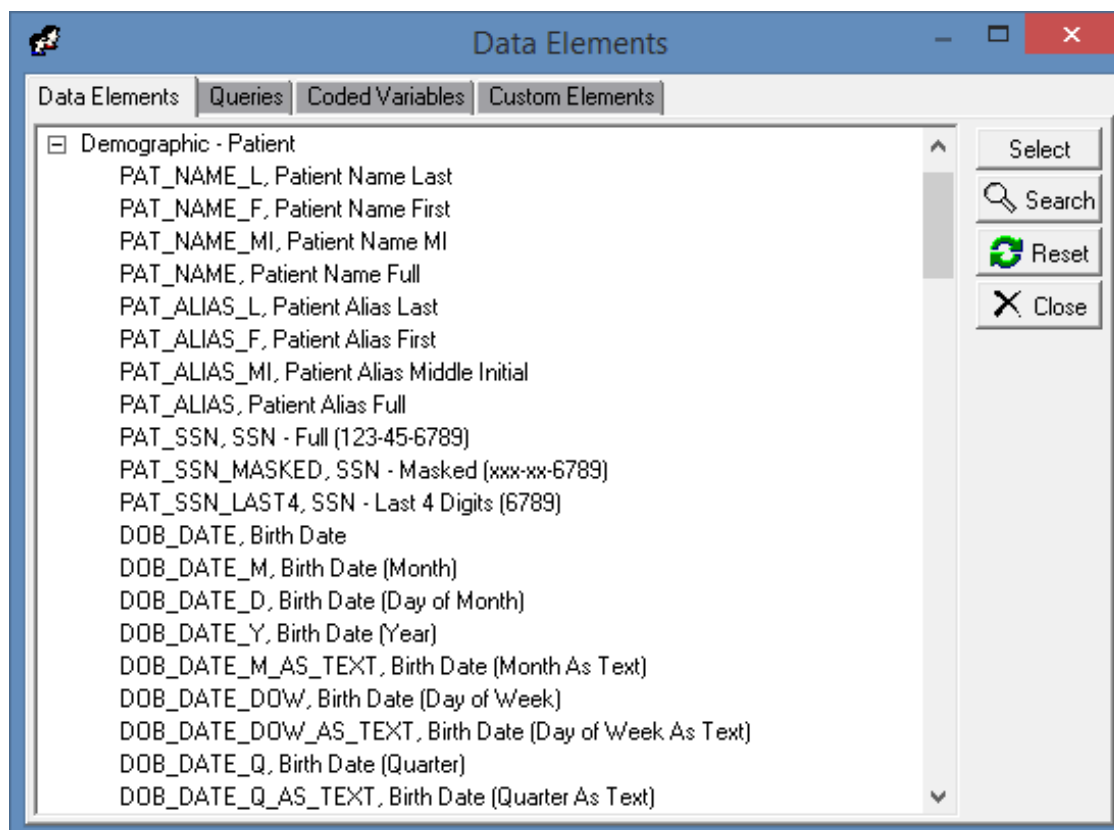
Each DI Report Writer tool contains a “Data Elements” screen. The “Data Elements” screen provides a user with easy access to a list of Trauma Registry data elements to use in the DI Report Writer. Follow the steps below to use the “Data Elements” screen in Report Writer.

The “Data Elements” screen opens when a user selects the **[Add]** option from the “Editor” screen.

The “Data Elements” screen opens in a collapsed view. This collapsed view provides a list of every data entry screen in the Trauma Registry.

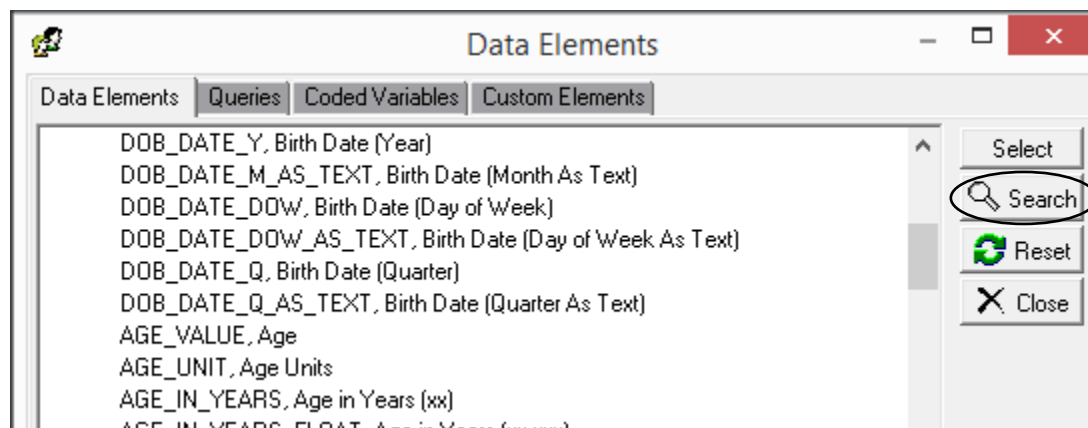


To view a list of all data elements on a Trauma Registry screen, select the **[+]** button next to the screen name. In the example below, the “Demographic - Patient” screen is expanded to display all data elements on the screen. To select a data element, double click the mouse on the selected the data element name or select the data element name and select the **[Select]** button on the “Data Elements” screen.

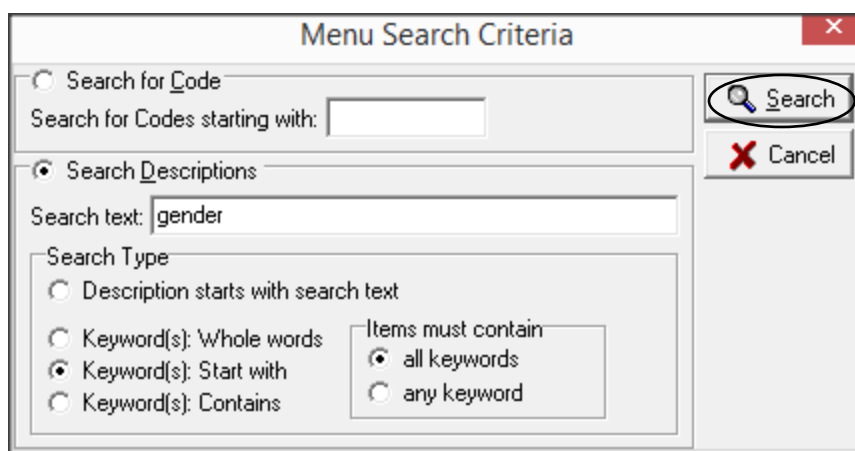


DI Report Writer also offers a **[Search]** option to search for data elements. To use the **[Search]** option:

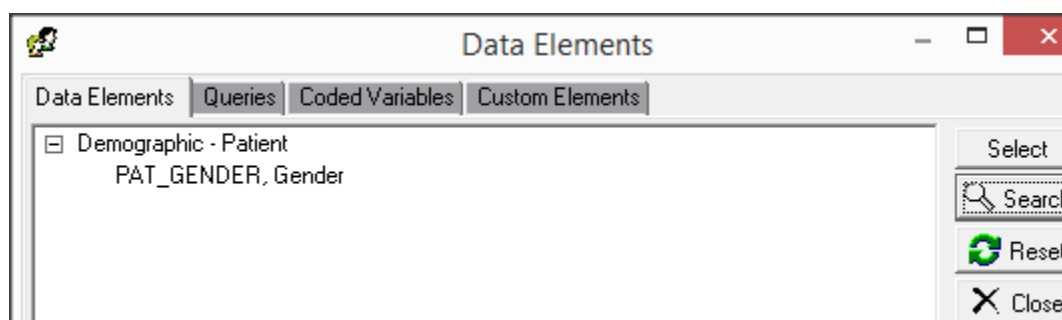
1. Select the **[Search]** option on the “Data Elements” screen.



2. Enter search criteria and then select **[Search]**.



3. All data elements matching the search criteria are displayed. To select the data element, select the data element name.



Date and Time Data Elements

For each Date and Time field in the Trauma Registry, DI Report Writer includes the following:

- “_DATE” – displays the date field
- “_DATE_M” – displays the numeric month (Example: ‘7’ displays for July)
- “_DATE_D” – displays the day of the month (Example: ‘31’ of July)
- “_DATE_Y” – displays the year (Example: ‘2015’)
- “_DATE_M_AS_TEXT” – displays the text for the month (Example: ‘July’)
- “_DATE_DOW” – displays the numeric day of the week (Example: ‘0’ for Sunday)

- “_DATE_DOW_AS_TEXT” – displays the text for the day of the week (Example: ‘Sunday’)
- “_DATE_Q” – displays the numeric quarter (Example: ‘1’)
- “_DATE_Q_AS_TEXT” – displays the text for the quarter (Example: ‘Q1’)
- “_TIME” – displays the time field
- “_TIME_H” – displays the hour for the time field (Example: ‘10’ for 10:00)
- “_TIME_M” – displays the minutes for the time field (Example: ‘30’ for 10:30)
- “_EVENT” – displays the date and time field combined (Example: ‘10/31/2015 10:30’)

Note: If the date OR time is NOT entered, selecting the _EVENT item will display a blank value in the output. Both values are required to display the _EVENT item.

Below is an example of all of the Date and Time fields associated with the Injury Date and Time:

```

INJ_DATE, Injury Date
INJ_DATE_M, Injury Date (Month)
INJ_DATE_D, Injury Date (Day of Month)
INJ_DATE_Y, Injury Date (Year)
INJ_DATE_M_AS_TEXT, Injury Date (Month As Text)
INJ_DATE_DOW, Injury Date (Day of Week)
INJ_DATE_DOW_AS_TEXT, Injury Date (Day of Week As Text)
INJ_DATE_Q, Injury Date (Quarter)
INJ_DATE_Q_AS_TEXT, Injury Date (Quarter As Text)
INJ_TIME, Injury Time
INJ_TIME_H, Injury Time (Hour)
INJ_TIME_M, Injury Time (Minute)
INJ_EVENT, Injury Date/Time

```

Working with Menu Data Elements

To display the text for a menu field in DI Report Writer, type “_AS_TEXT” after the data element name.

Example: In the report below, the numeric codes ‘1’ and ‘2’ display for the “PAT_GENDER” field.

DI Report Writer Data Table Report Generated 07/08/2015 Query EVERYONE Number of Records 8	
PAT_GENDER	
1	
2	
1	

To display the text descriptions (‘Male’ and ‘Female’) add the phrase “_AS_TEXT” after the data element name. In the example on the next page, the text now displays for “PAT_GENDER_AS_TEXT”.

DI Report Writer Data Table Report
Generated 07/08/2015
Query EVERYONE
Number of Records 8

PAT_GENDER_AS_TEXT

Male
Female
Male

Working with Repeating Data

A repeating data element is a data element repeated in a list format.

Examples:

- Data elements associated with a procedure (Procedure Code, Start Date/Time, End Date/Time, etc.) are considered repeating data elements. The data elements are represented in a list format.
- Data elements associated with a diagnosis (Diagnosis Code, AIS, etc.) are considered repeating data elements.

When working with repeating data in DI Report Writer, follow these tips:

- To view repeating data, **one value in each column**, select the data element that ends with S (List).
 - Example:** To report on ICD10 Diagnosis codes, select the "ICD10_S (List)" data element.

ICD10_S 1	ICD10_S 2	ICD10_S 3	ICD10_S 4	ICD10_S 5
S72.92XA	S80.02XA	S37.019A	S36.116A	S36.031A

- Users can restrict the number of items displayed in the list. A colon ":" and a number can be added after the data element selected.
 - The maximum value that can be entered after the colon is 999.
 - There can be up to two leading zeros after the colon. *Example: 001*
- Below is a table outlining certain scenarios to display data with this data element in this format:

Scenario	Expected Result
User does NOT enter a colon	The entire list is returned
User enters a blank after the colon	The entire list is returned
User enters a number greater than the list size	The entire list is returned
User enters a number smaller than the list size	The list size specified is returned
The colon is used with a field other than a list	The user receives the data from the field if there is no number after the colon. If there is a number, an error message is returned.
User enters a zero after the colon	Nothing is returned
User enters a negative number after the colon	The user receives an error message; "Error generating code" and the line that has the issue.
The user enters a colon followed by letters (:ABC)	The user receives an error message: "Error generating code" and the line that has the issue.
User enters number larger than 999	The user receives an error message: "Error generating code" and the line that has the issue.

- To view repeating data, **one value per column**, and display the *text description* for the data element, type “_AS_TEXT” in the data element that ends with S (List).
 - Example:** To report on the ICD10 Diagnosis Code description, select the “ICD10_S (List)” data element and type in “_AS_TEXT” after the data element.

Note: The same rules apply to displaying data in this format as described above.

<u>ICD10_S_AS_TEXT 1</u>	<u>ICD10_S_AS_TEXT 2</u>
Unspecified fracture of left femur, initial encounter for closed fracture	Contusion of left knee, initial encounter

- To view all repeating data in one column and display the *code* for the data element, select the data element that ends with the _L suffix.
 - Example:** To report on ICD10 diagnosis codes, select the “ICD10_S_L (Data)” data element.

<u>ICD10_S_L</u>
S72.92XA, S80.02XA, S37.019A, S36.116A,

- To view all repeating data in one column and display the *text description* for the data element, select the data element that ends with the “_L_AS_TEXT (Data)” suffix.
 - Example:** To report on the ICD10 Diagnosis description, select the “PR_ICD10_S_L_AS_TEXT” data element.
- To Query on a repeating data element, select the data element with the ANY prefix and “(Query)” at the end of the data element.
 - Example:** To Query on ICD10 Diagnoses, select the “ANY(ICD10_S)” data element.
- The ‘Using Across to Report on Repeating Data’ section of the User Guide provides additional information on reporting for repeating data elements.

ICD10_S, ICD 10 (List)
ICD10_S_L, ICD 10 (Data)
ICD10_S_L_AS_TEXT, ICD 10 (Data)
ANY(ICD10_S), ICD 10 (Query)

Report Writer Tools

Query

A Query is used to define a **subset** of records.

Example: To identify all female patients in the Trauma Registry, create a Query in DI Report Writer.

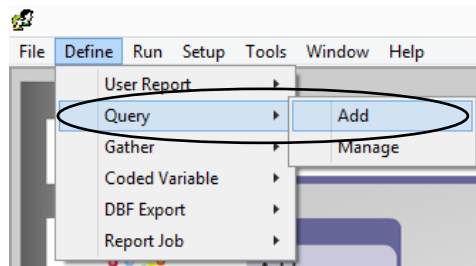
This section provides instruction on how to create and define a Query. Several examples of Query definitions are also provided.

Adding a New Query

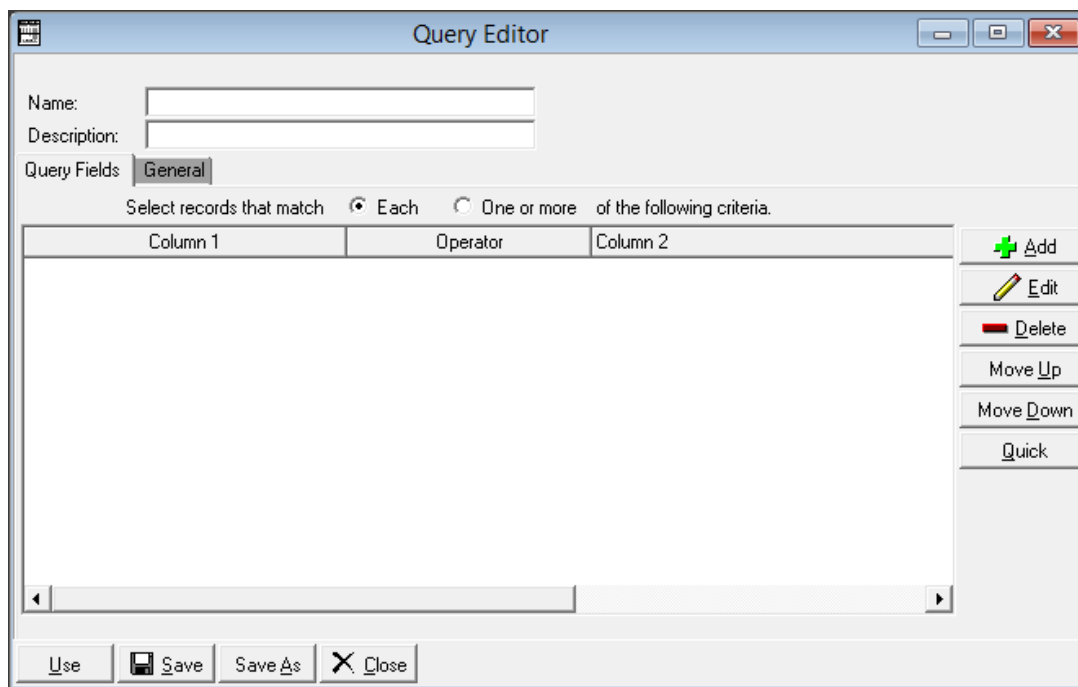
- From the “Welcome” screen, select **[Add]** to add a Query.



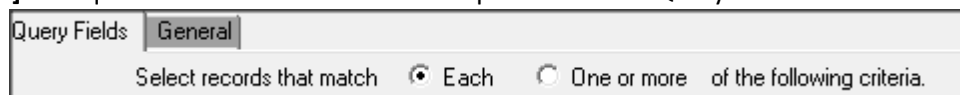
Alternatively, from the “Define” option on the menu bar, select “Query” and then select “Add”.



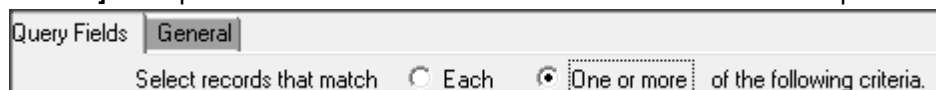
2. The “Query Editor” screen opens.



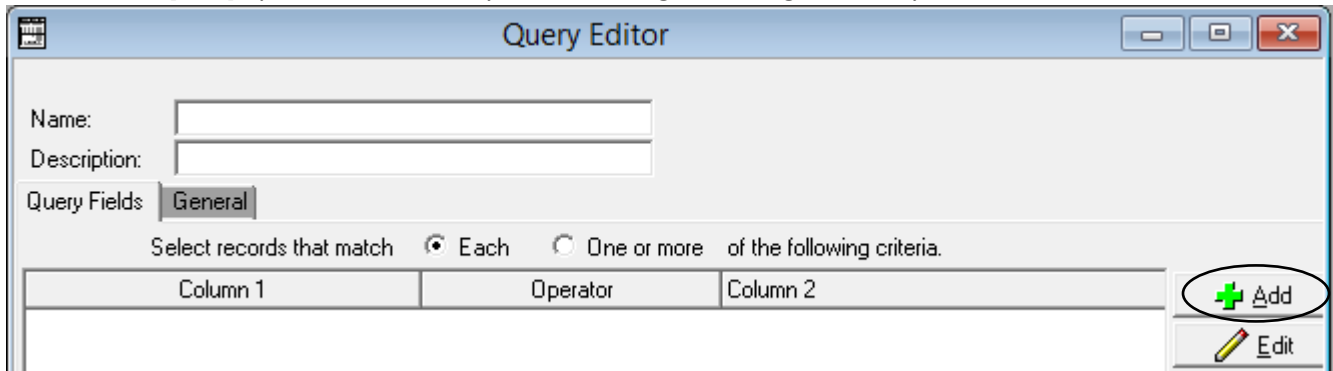
3. Enter a “Name” for the Query. The “Name” is used to uniquely identify the Query. The “Name” field allows up to 20 alphanumeric characters and underscores. This field does not accept spaces. It must also start with an alpha character. No special characters (other than underscore) are allowed.
4. Enter a “Description” for the Query. The “Description” field provides additional information to help identify the Query. This field allows up to 27 characters (including spaces).
5. Select **[Each]** to require records to meet ALL rules specified in the Query criteria.



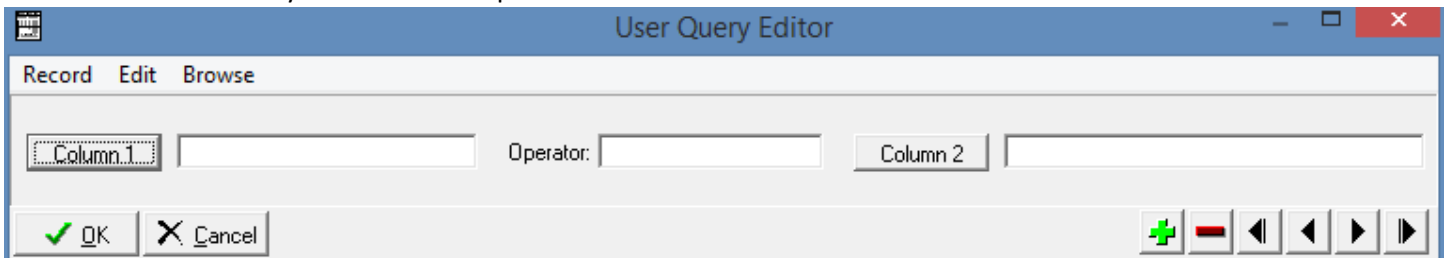
6. Select **[One or more]** to require records to meet at least one or more of the rules specified in the Query criteria.



7. Select the **[Add]** option on the “Query Editor” to begin defining the Query criteria.



8. The “User Query Editor” screen opens.

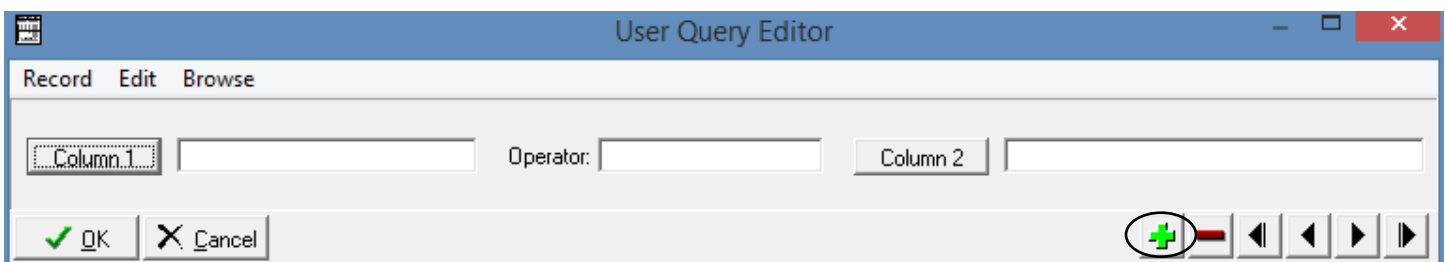


A Query selects a subset of records. The “Operator” on the “User Query Editor” screen is used to define criteria. Queries are defined using a format of <Column 1>, “Operator”, <Column 2>.

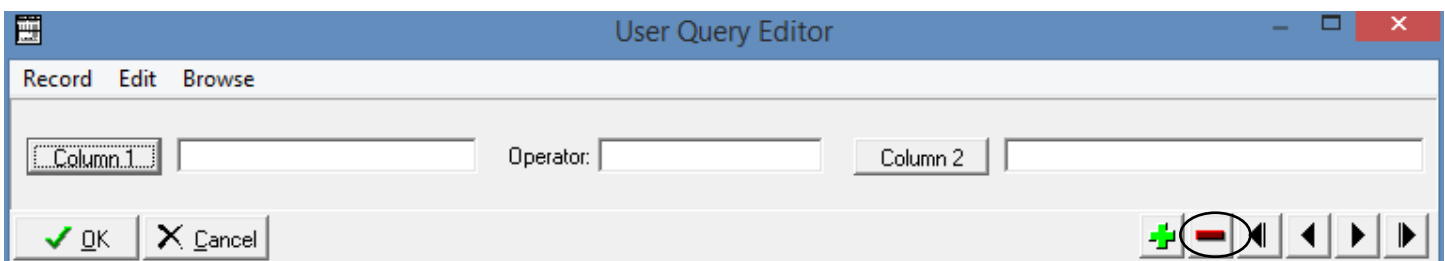
- “Column 1” is used to identify the object of the Query.
- The “Operator” is a logical or mathematical function.
- “Column 2” is used to specify Query criteria.

Below are several examples of Query definitions. Refer to these examples for guidance on defining Query criteria.

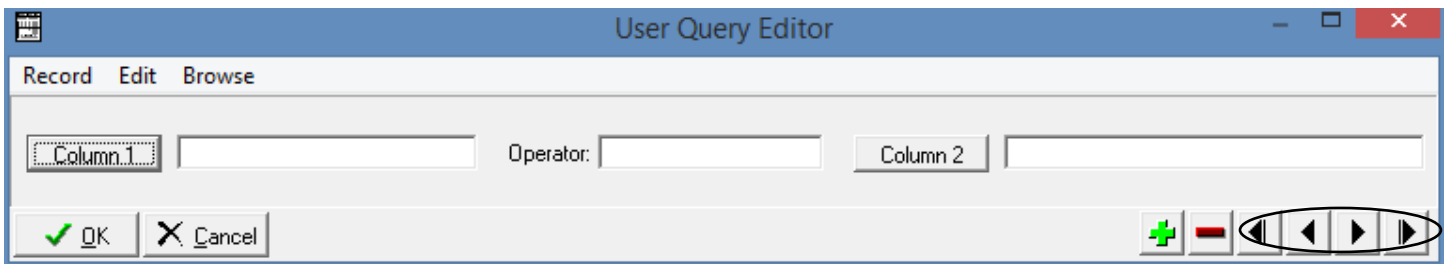
9. Select the **[+]** option on the “User Query Editor” to add additional Query criterion.



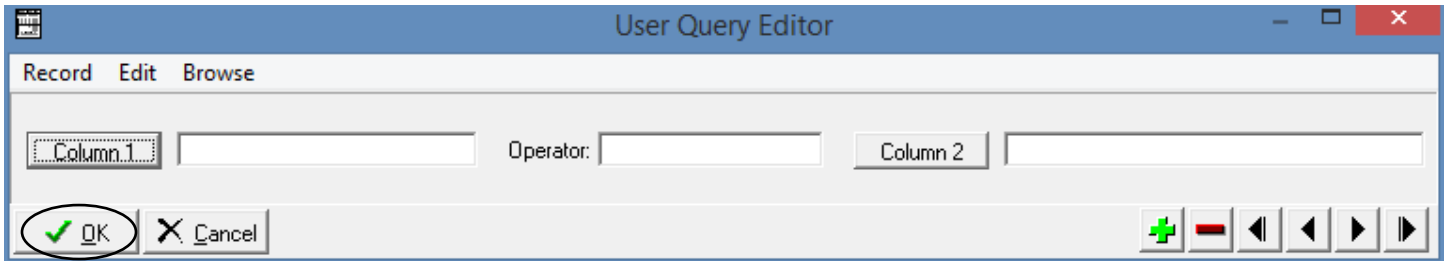
10. Select the **[-]** option on the “User Query Editor” to delete a Query criterion.



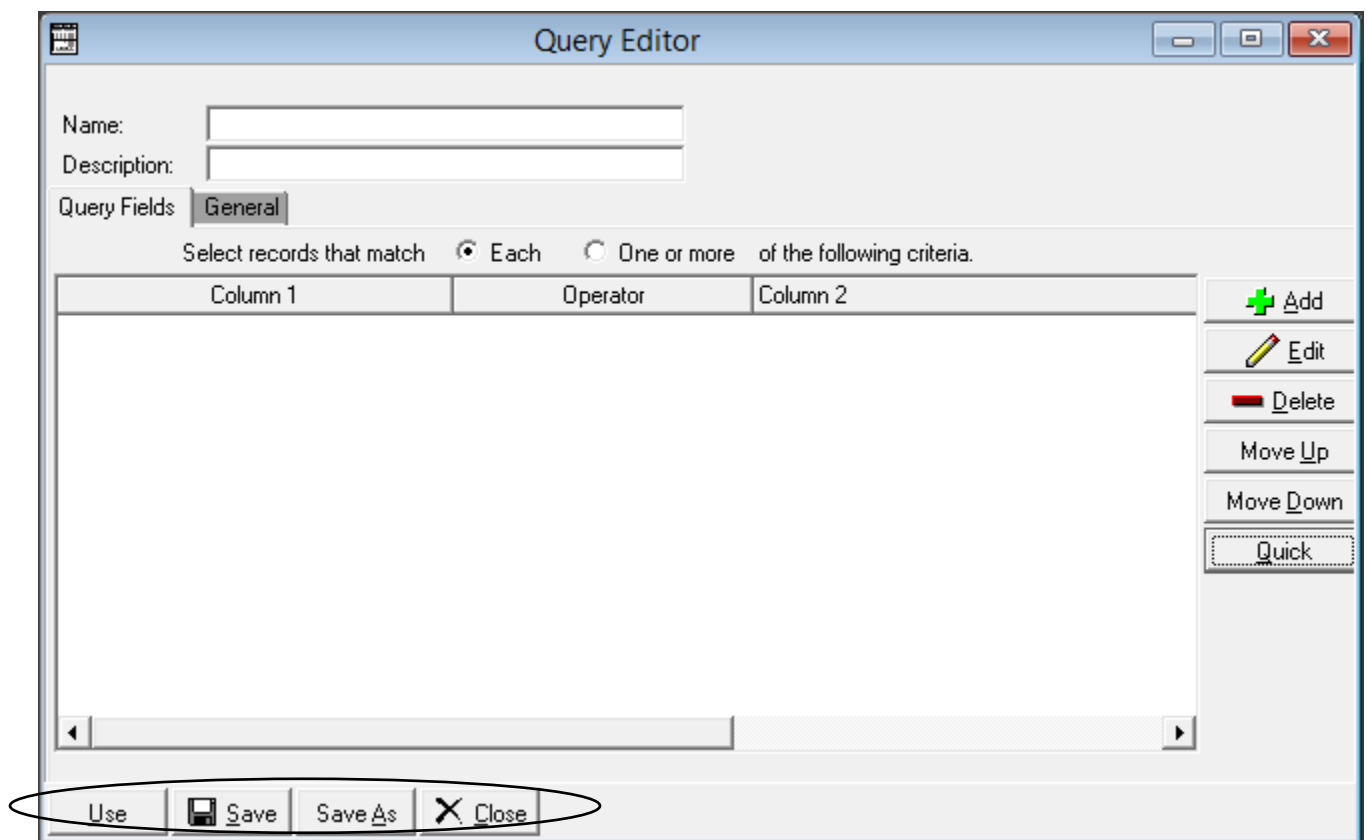
11. Use the navigation arrows to advance through all of the Query criteria.



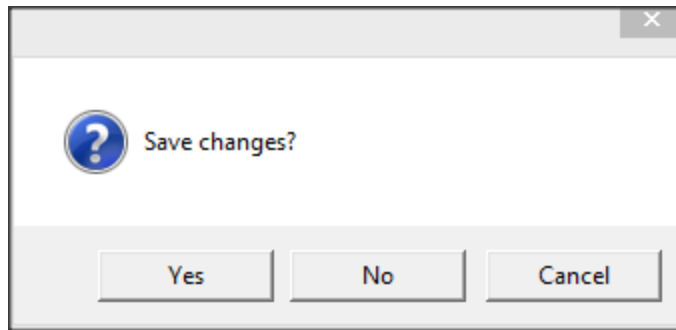
12. After all Query criteria is entered on the “User Query Editor”, select the **[OK]** option to return to the “Query Editor” screen.



13. On the “Query Editor” screen:



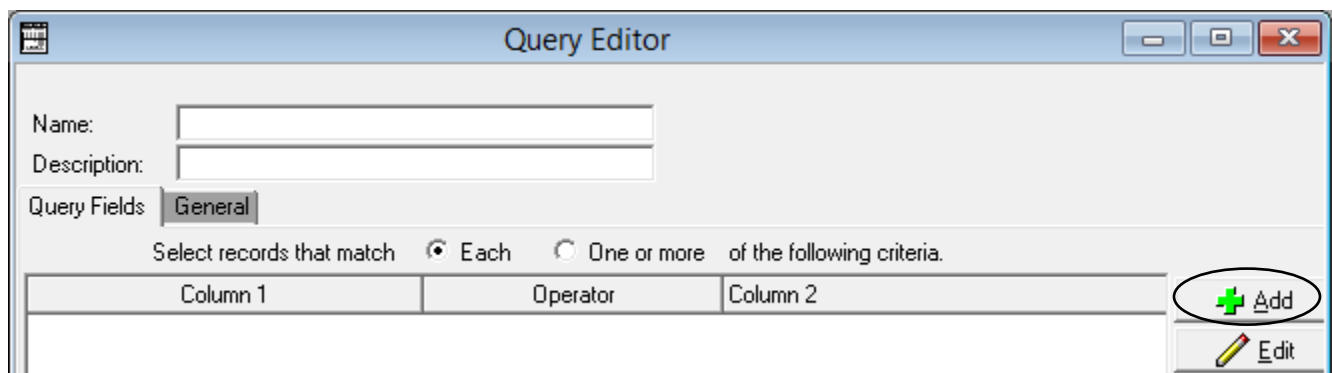
- Select **[Use]** to use the Query without saving.
- Select **[Save]** to save the Query.
- Select **[Save As]** to save the Query with a different Query name.
- Select **[Close]** to exit the “Query Editor” screen. Select **[Yes]** or **[No]** to save changes.



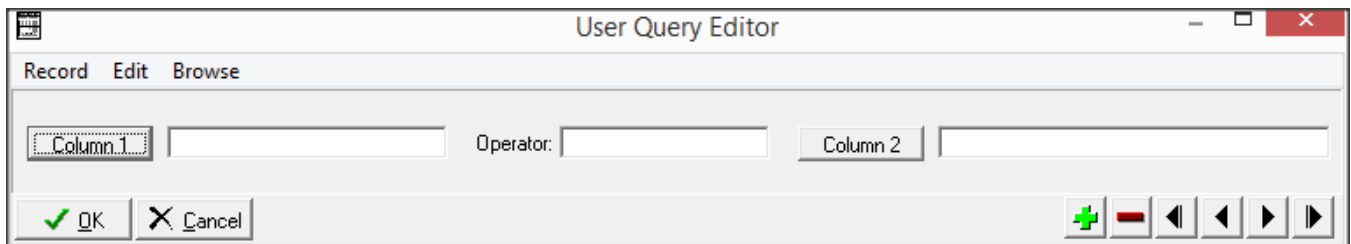
Example 1 – Basic Query

Follow the example below to define a basic Query to identify trauma registry records, where the Patient Gender is equal to Female.

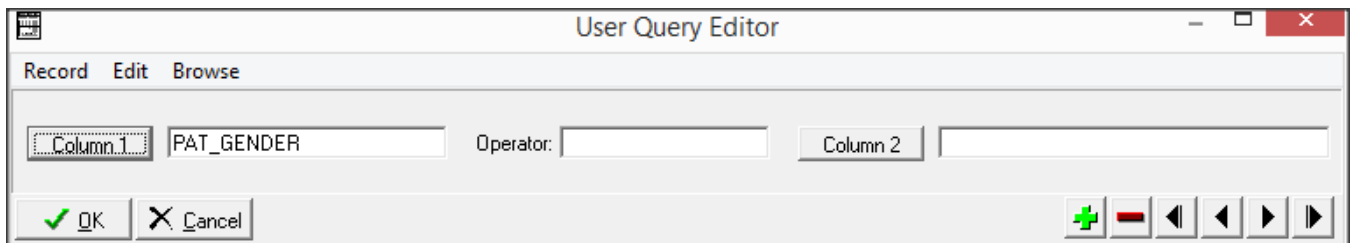
1. Select the **[Add]** option on the “Query Editor” to begin defining the Query criteria.



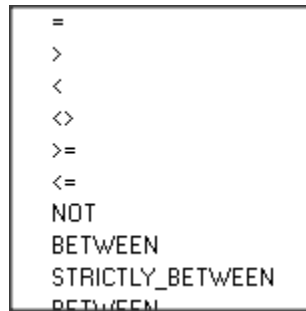
2. The “User Query Editor” screen opens.



3. Select the **[Column 1]** button.
4. Locate the “Gender” field, using the steps provided in the ‘Using the “Data Elements” Screens’ section of the User Guide.
5. After selecting the PAT_GENDER data element, tab to move the cursor to the “Operator” field.

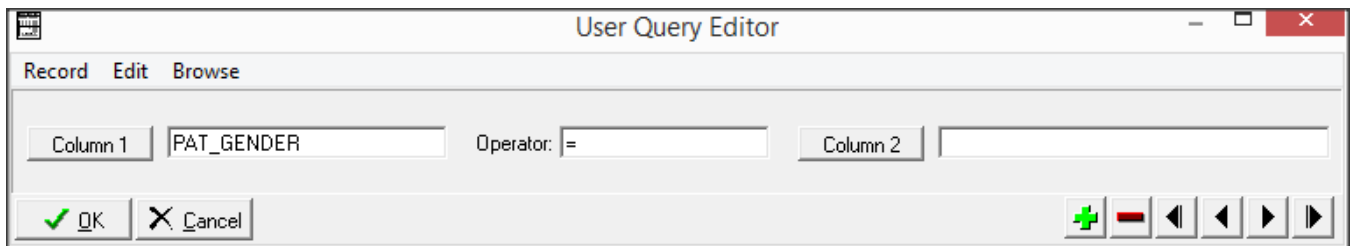


6. The “Operator” menu screen opens in the upper left hand corner of DI Report Writer.



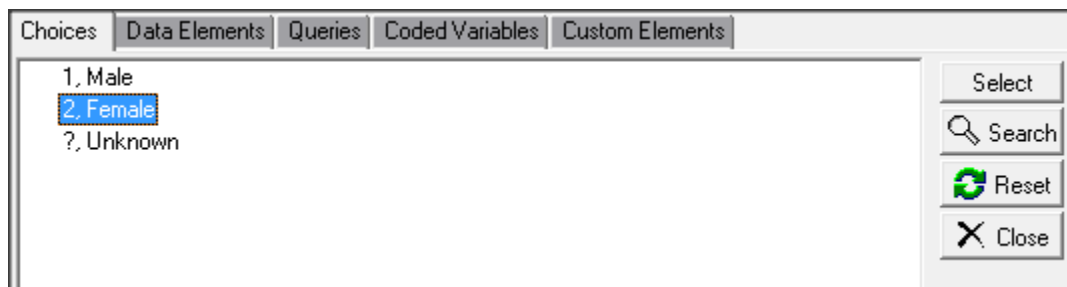
7. Select the “=” operator. To select the operator, double click the operator from the list.

8. Tab to move the cursor to the “Column 2” field.

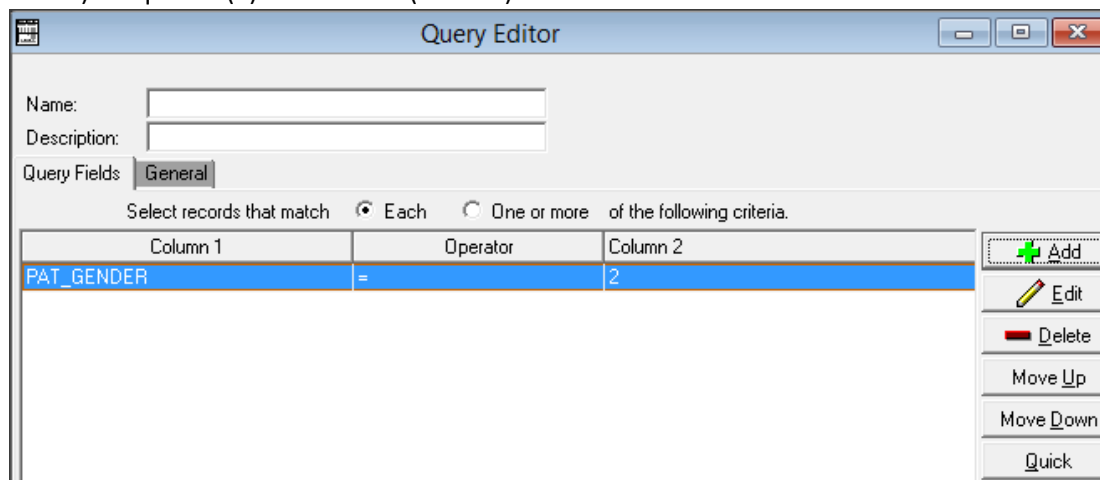


9. Select the [Column 2] option.

10. The “Choices” screen for the “PAT_GENDER” field opens. Double click the “2, Female” option to select it. Alternatively, select “2, Female” and select the [Select] option.



11. On the “Query Editor” screen, review the Query. This Query will identify any trauma records where the Gender (“PAT_GENDER”) is equal to (=) a value of 2 (Female).



Example 2 – Basic Query w/ Multiple Criteria

Continuing with the above example, the “Gender Equal to Female” Query is modified to include an additional Query criterion: Race Equal to White.

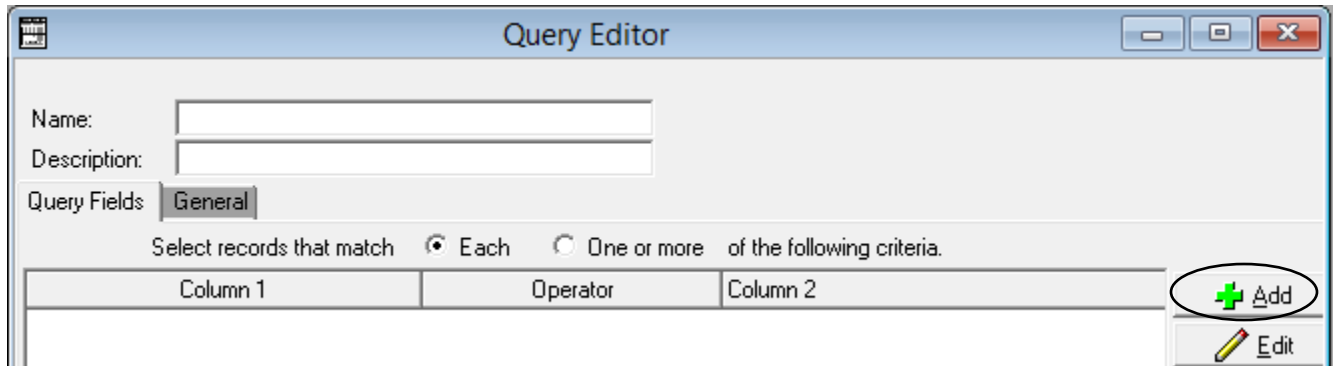
1. On the “Query Editor” screen, select the **[Each]** option to require records to meet ALL rules specified in the Query criteria.



Query Fields **General**

Select records that match ☒ Each ☐ One or more of the following criteria.

2. Select the **[Add]** option on the “Query Editor” to add new criteria to the Query.



Query Editor

Name:


Description:

Query Fields **General**

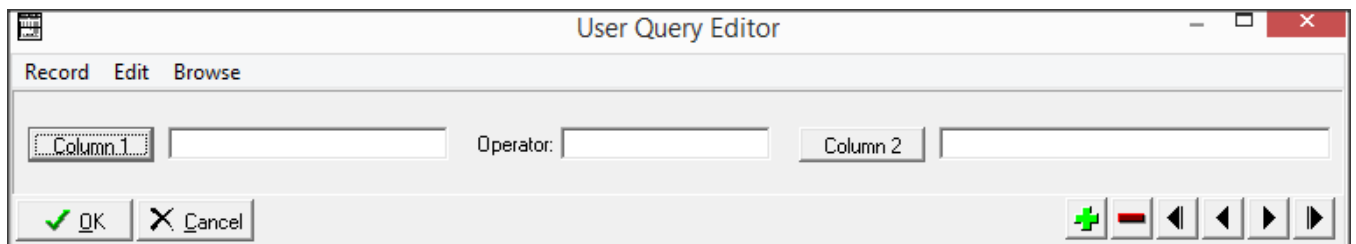
Select records that match ☒ Each ☐ One or more of the following criteria.

Column 1	Operator	Column 2

+ Add

 Edit



3. The “User Query Editor” screen opens.







User Query Editor

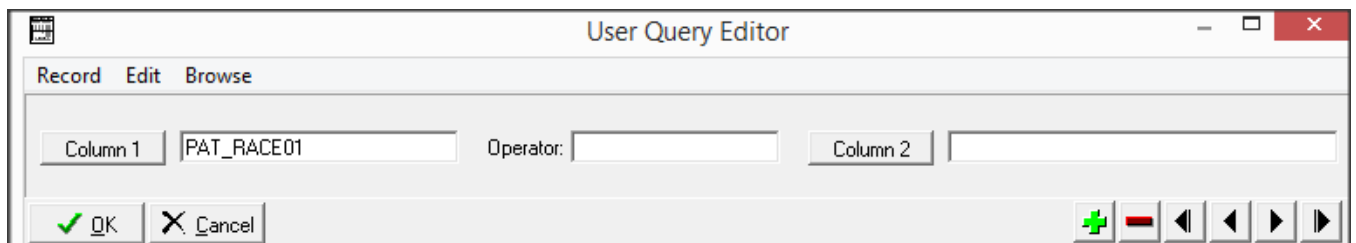
Record Edit Browse

Operator:

 OK  Cancel



4. Select the **[Column 1]** option. Locate and select the “PAT_RACE01 (Race 1)” field.







User Query Editor

Record Edit Browse

Operator:

 OK  Cancel

5. Tab to move the cursor to the “Operator” field.
6. Select “=” for the operator.

The "User Query Editor" window has a menu bar with "Record", "Edit", and "Browse". Below the menu bar, there are two input fields: "Column 1" containing "PAT_RACE01" and "Column 2" which is empty. Between them is an "Operator" field containing "=". At the bottom left are "OK" and "Cancel" buttons. At the bottom right are navigation buttons: a green plus, a red minus, and four arrows (left, right, double left, double right).

7. Tab to move the cursor to the "Column 2" field.
8. Select the **[Column 2]** option.
9. Double click the "5, White" menu choice to select it.

The "Choices" dialog box has tabs for "Data Elements", "Queries", "Coded Variables", and "Custom Elements". The "Data Elements" tab is active, showing a list:

- 1, American Indian
- 2, Asian
- 3, Black or African American
- 4, Native Hawaiian or Other Pacific Islander
- 5, White** (highlighted)
- 6, Other Race
- ?, Unknown

 On the right side of the dialog are buttons for "Select", "Search", "Reset", and "Close".

10. On the "Query Editor" screen, review the Query. This Query will identify any trauma records where the Gender ("PAT_GENDER") is equal to (=) a value of 2 (Female) AND where the Race ("PAT_RACE01") is equal to (=) a value of 5 (White).

The "Query Editor" window shows a query with the following details:

- Name: (empty)
- Description: (empty)
- Query Fields: General
- Select records that match: ☒ Each ☐ One or more of the following criteria.

 A table lists the criteria:

Column 1	Operator	Column 2
PAT_GENDER	=	2
PAT_RACE01	=	5

 On the right side of the table are buttons for "Add", "Edit", and "Delete".

Example 3 – Query on a Text Value

If Column 2 of the Query criteria contains any text, include quotes around the Query criteria. In the example below, a Query on an ICD-10 code is enclosed in quotes. The ICD-10 code contains text. **Always remember to enclose any values containing text in quotes.**

The "User Query Editor" window shows a query setup:

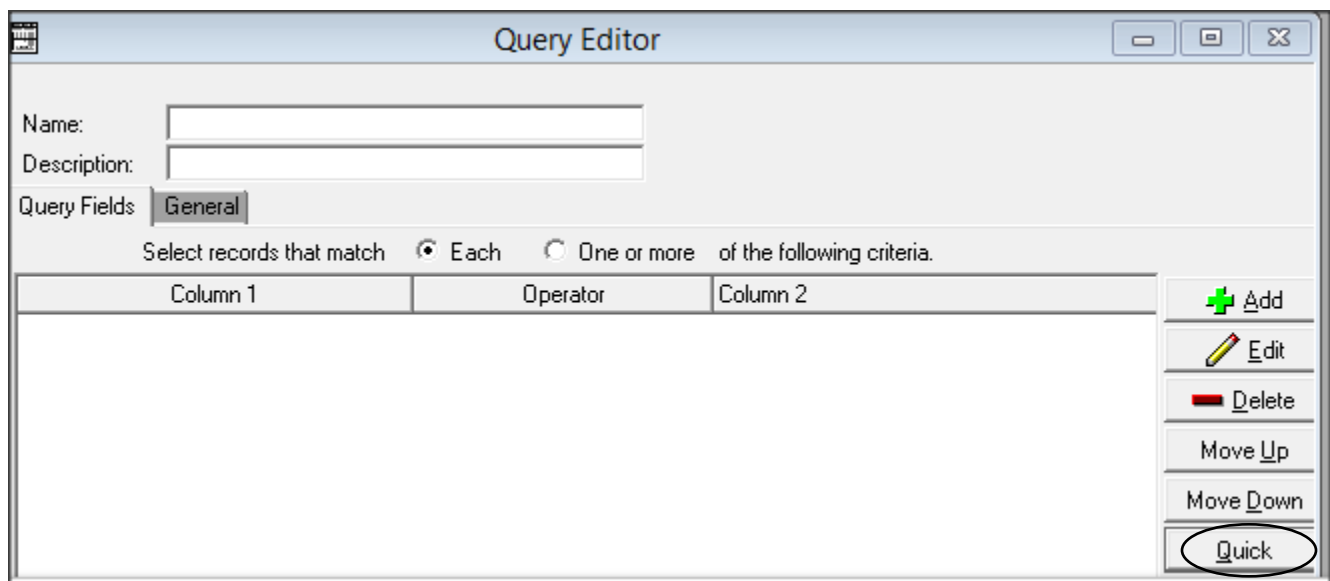
- Column 1: INJ_ECODE_ICD10_01
- Operator: =
- Column 2: "V40.0XXA"

 The "OK" and "Cancel" buttons are at the bottom left, and navigation buttons are at the bottom right.

Example 4 – The Quick Query Screen

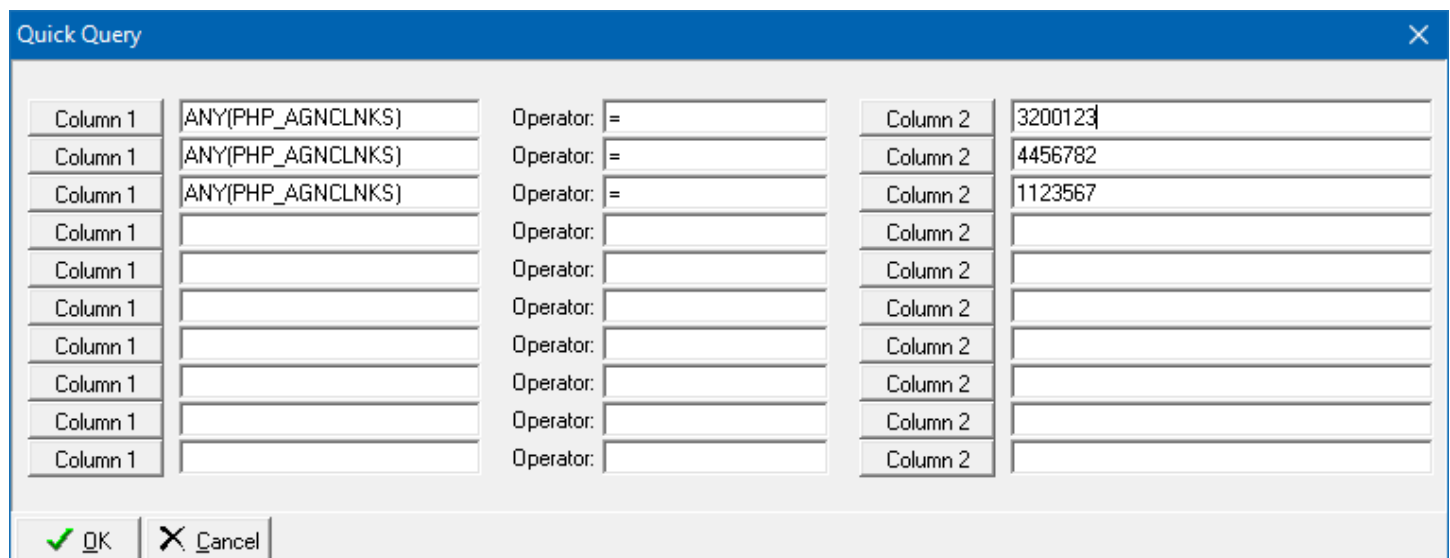
Use the **[Quick Query]** option to quickly query for multiple criteria. In the example below, a Query on three different ICD-9 codes is created.

1. Select the **[Quick]** option on the “Query Editor”



2. Enter multiple Query criteria on the “Quick Query” screen. Select **[OK]** to save changes.

Tip: If ‘quick’ querying on the same field, copy and paste the field name into Column 1. In the example below, copy and paste ANY(PHP_AGNCLNKS) into the Column 1 field.



Column 1	Operator	Column 2
ANY(PHP_AGNCLNKS)	=	3200123
ANY(PHP_AGNCLNKS)	=	4456782
ANY(PHP_AGNCLNKS)	=	1123567

Query Operators

A Query Operator is a symbol or sign used to identify a logical or mathematical operation. The table below provides an overview of the available Query operators in Report Writer.

Comparative Operators (results in a value of true/false)	
=	Equals
>	Greater Than
<	Less Than
<>	Not Equal To
>=	Greater Than or Equal To
<=	Less Than or Equal To
BETWEEN	Between (includes both start and end values)
STRICTLY_BETWEEN	Between (excludes both start and end values)
BETWEEN -	Between (includes lower value, excludes upper value)
BETWEEN +	Between (includes upper value, excludes lower value)
VALUED	Queries for valued data
NOT_VALUED	Queries for blank data, Inappropriate, or Unknown
UNKNOWN	Queries for unknown data
INAPP	Queries for inappropriate/not applicable data
BLANK	Queries for blank data
CONTAINS	Contains (must include quotes around the value in Column 2)
Mathematical Operators (represents a mathematical operation)	
PLUS	Plus
MINUS	Minus
TIMES	Times
DIVIDE	Divide
MINUS_IN_DAYS	Minus (with the difference in days)
MINUS_IN_HOURS	Minus (with the difference in hours)
MINUS_IN_MINUTES	Minus (with the difference in minutes)
ELAPSED_HOURS	Elapsed hours between two times
ELAPSED_MINUTES	Elapsed minutes between two times
SUB1	Subtract 1
LOG	Natural Log
EXP	Exponent
SQRT	Square Root
SQUARE	Square
POW	Raise 'x' to the 'y' power
ABS	Absolute Value
NEG	Multiple by (-1)
ROUND	Round
MODULO	Modulo
Joining Operators (used to aggregate individual queries into a single result)	
AND	And
OR	Or
NOT	Negates the data element or Query referenced in "Column 1"
Regular Expressions (primary use to assist in writing queries using ICD10 data elements)	
RE_STARTS_WITH	Any code that starts with certain characters you define
RE_ENDS_WITH	Any code that ends with certain characters you define
RE_STARTS_ENDS_WITH	Any code that starts and ends with certain characters you define
RE_CONTAINS	Any code that "contains" certain characters you define
RE_MATCH	Any code that "matches" certain characters you define

Queries with Regular Expressions

A **Regular Expression** is a sequence of characters that define a search pattern, mainly for use in pattern matching with strings, or string matching.

With Report Writer, you can search for specific ICD10 Codes, as well as any other registry data element, using the new Query operators and some basic Regular Expression language.

You can use special characters with the Query operators:

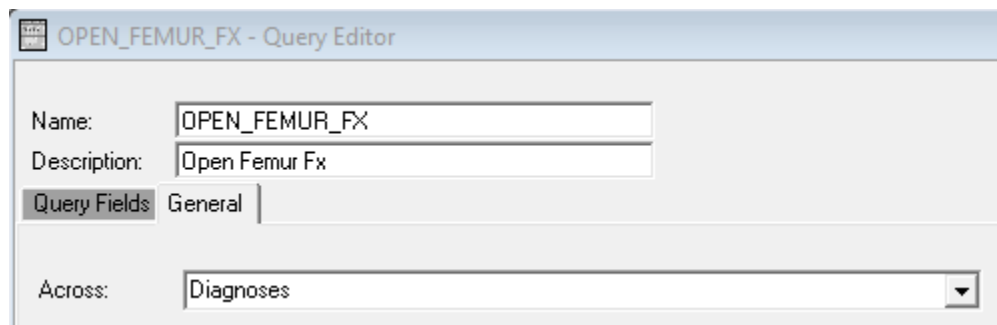
- ! – Use this character to find any character in the string/ICD10 code.
- @ - Use this character to represent any alphabetic character, regardless of case.
- # - Use this character to represent any digit.
- . – Use this character to represent a decimal point or period.

To look for specific characters or a range of characters, brackets “[]” are used with these operators containing parts of the value to query or the special characters above.

The operator performs some type of function on the Column 1 item.

Queries with Across

Across in DI Report Writer allows the user to easily report on repeating data. Across is explained in the ‘How to Use Across in a Query’ section of the User Guide.



Gather

A Gather is used to divide report output into **groupings**.

Example: Use a Gather to group report output by Post ED Disposition menu options.

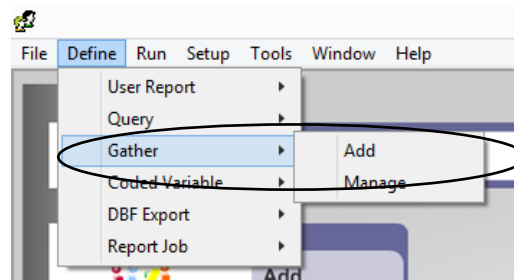
This section provides instruction on how to create and define a Gather. Few examples of Gathers are also provided.

Adding a New Gather

1. From the “Welcome” screen, select **[Add]** to add a Gather.



Alternatively, from the “Define” option on the menu bar, select “Gather” and then select “Add”.



2. The “Gather Editor” screen opens.

A screenshot of the 'Gather Editor' window. It has a title bar with 'Gather Editor' and standard window controls. Below the title bar are fields for 'Name:' and 'Description:'. There are three tabs: 'Quick', 'Advanced', and 'General'. The 'Quick' tab is selected. Under 'Quick', there are three sections for 'Data Element Level 1', 'Data Element Level 2', and 'Data Element Level 3'. Each section contains a 'Data Element' dropdown menu and a 'Title' text field. To the right of each section are two checkboxes: 'Use As Text if Available' and 'Tabulate Subtotal'.

3. Enter a “Name” for the Gather. The “Name” is used to uniquely identify the Gather. The “Name” field allows up to 20 alphanumeric characters and underscores. This field does not accept spaces. It must also start with an Alpha. No special characters (other than underscore) are allowed.
4. Enter a “Description” for the Gather. The “Description” field provides additional information to help identify the Gather. This field allows up to 27 characters (including spaces).
5. Select the **[Data Element]** option. Follow the instructions from the ‘Using the “Data Elements” Screens’ section of the User Guide to select a data element.
6. Enter a “Title” for the Gather. The “Title” is used as a label on the Gather output. In the example below, the “Title” used is Gender.

A close-up screenshot of the 'Data Element Level 1' section from the 'Gather Editor' window. The 'Data Element' dropdown menu is set to 'PAT_GENDER' and the 'Title' text field contains 'Gender'. Both the dropdown and the title field are circled with a black oval. To the right, the checkboxes 'Use As Text if Available' and 'Tabulate Subtotal' are both checked.

DI Report Writer Count Report Generated 07/01/2015 Query EVERYONE Gather [Adhoc]	
Gender	Count
Male	1
Female	1
TOTAL	2

If a "Title" is not entered, then the data element name displays:

DI Report Writer Count Report Generated 07/09/2015 Query EVERYONE Gather [Adhoc]	
PAT_GENDER	Count
1	2
2	1
n/v	5

- To display the text descriptions on the report output, select the **[Use As Text if Available]** option. Example: To display 'Male' and 'Female' for the "Gender" field, the **[Use As Text if Available]** option is selected.

Data Element Level 1	
Data Element	PAT_GENDER
Title	Gender
<input checked="" type="checkbox"/> Use As Text if Available <input checked="" type="checkbox"/> Tabulate Subtotal	

DI Report Writer Count Report Generated 07/01/2015 Query EVERYONE Gather [Adhoc]	
Gender	Count
Male	1
Female	1
TOTAL	2

- To display the 'code' for a field, de-select the **[Use As Text if Available]** option. Example: To display the numeric codes of '1' and '2' for the "Gender" field, the **[Use As Text if Available]** option is de-selected.

Data Element Level 1	
Data Element	PAT_GENDER
Title	Gender
<input type="checkbox"/> Use As Text if Available <input checked="" type="checkbox"/> Tabulate Subtotal	

DI Report Writer Count Report	
Generated 07/01/2015	
Query EVERYONE	
Gather [Adhoc]	
Gender	Count
1	1
2	1
TOT	2

9. To include totals on the Gather, select the **[Tabulate Subtotal]** option. For advanced subtotal options, refer to 'Example 1: Gather Subtotals' for additional details.

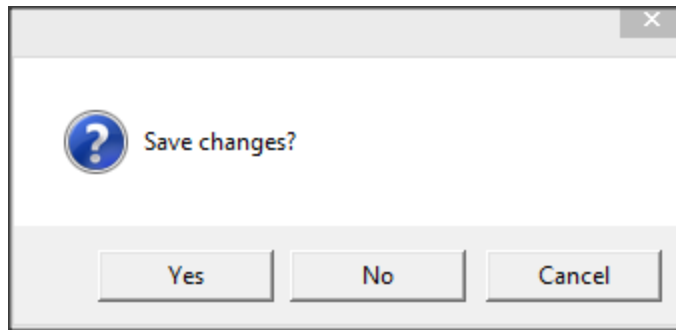
Data Element Level 1		<input type="checkbox"/> Use As Text if Available
Data Element	PAT_GENDER	<input checked="" type="checkbox"/> Tabulate Subtotal
Title	Gender	

DI Report Writer Count Report	
Generated 07/01/2015	
Query EVERYONE	
Gather [Adhoc]	
Gender	Count
1	1
2	1
TOT	2

10. Users may gather on multiple data elements using the "Data Element Level 2" and "Data Element Level 3" fields. Refer to 'Example 2: Gather By Multiple Data Elements'.
11. Use the "Advanced" screen to set advanced options for a Gather. Refer to 'Example 3: Setting Advanced Options for a Gather'.
12. Select one of the options below to close the "Gather Editor" screen:

<u>U</u> se	<u>S</u> ave	Save <u>A</u> s	<u>C</u> lose
-------------	--------------	-----------------	---------------

- Select **[Use]** to use the Gather without saving.
- Select **[Save]** to save the Gather.
- Select **[Save As]** to save the Gather with a different Gather name.
- Select **[Close]** to exit the "Gather Editor" screen. Select **[Yes]** or **[No]** to save changes

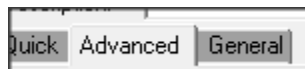


Example 1 – Gather Subtotals

This example explains how to add advanced options for a Gather subtotal.

1. Create a basic Gather using the “PAT_GENDER” field. Select the **[Tabulate Subtotal]** option.

2. Select the “Advanced” tab.



3. The advanced options for subtotals are located at the bottom of the “Advanced” screen.
 - a. Select **[Subtotal at Top]** to view the subtotal at the top of the report output.
 - b. Select **[Always Display Label]** to always include the label in the report output.
 - c. Select **[Custom Label]** and enter a description for the label.

The advanced options in the example above produce the output below. The subtotal (Total:) is displayed at the top of the report output.

<p style="text-align: center;">DI Report Writer Count Report Generated 07/01/2015 Query EVERYONE Gather [Adhoc]</p>	
Gender	Count
<hr/>	
Total:	2
Male	1
Female	1

Example 2 – Gather by Multiple Data Elements

This example demonstrates how to group data by multiple data points. In the example below, data is grouped by Gender, by Race, and by Ethnicity.

Add each data element:

- “Data Element 1” – “PAT_GENDER”
- “Data Element 2” – “PAT_RACE01”
- “Data Element 3” – “PAT_ETHNIC”

The screenshot shows the 'Gather Editor' interface with three levels of data elements. Each level has a 'Data Element' field, a 'Title' field, and two checkboxes: 'Use As Text if Available' and 'Tabulate Subtotal'.

Level	Data Element	Title	Use As Text if Available	Tabulate Subtotal
Data Element Level 1	PAT_GENDER	Gender	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Data Element Level 2	PAT_RACE01	Race	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Data Element Level 3	PAT_ETHNIC	Ethnicity	<input checked="" type="checkbox"/>	<input type="checkbox"/>

In the report output, data is grouped by Gender, by Race, and by Ethnicity:

The screenshot shows a report titled 'DI Report Writer Count Report' generated on 07/01/2015. The report is a table with four columns: Gender, Race, Ethnicity, and Count. The data is grouped by Gender, then Race, and then Ethnicity.

Gender	Race	Ethnicity	Count
Male	Asian	Hispanic or Latino	1
Male	White	Not Hispanic or Latino	1
Female	White	Hispanic or Latino	1

Example 3 – Setting Advanced Options for a Gather

The “Advanced” screen on the Gather Editor allows a user to set advanced options for each level of a Gather. This example instructs the user on how to use the advanced options.

The screenshot shows the 'Advanced Options' screen for a Gather. It has three tabs: 'Quick', 'Advanced', and 'General'. The 'Advanced' tab is selected. Below the tabs are three buttons: 'Level 1', 'Level 2', and 'Level 3'.

Advanced Options – Data Element

In the “Data Element” section of the “Advanced” screen, set the “Width” of the data element. **Note: Report Writer already defaults the Width to the character limit of the field. This option allows a user to change the width from the default.**

Data Element		
Data Element	PAT_GENDER	Width 20 Format

Advanced Options – Subset

Use the “Subset” option to create a default Query for the Gather. When this section is completed, the Gather output will always run with this default subset. Follow the instructions in the ‘Example 1 – Basic Query’ section of the User Guide to create the subset criteria. In the example below, a subset where Race is equal to 5 (White) is created.

Subset		
Column 1	PAT_RACE01	Operator =
Column 2	5	

Advanced Options – Label Element

In the “Label Element” section of the “Advanced Screen”, configure the “Title” and the “Width” of the Gather label. The “Title” is the label that displays on the report output. If no title is entered, then the data element label displays. Set the “Width” of the label. **Note: Report Writer already defaults the width to the character limit of the field. This option allows a user to change the width from the default.**

Label Element			
Data Element		Title Race	Width 20 Format
<input checked="" type="checkbox"/> Use As Text if Available			

Advanced Options – Blank/Unknown/Inappropriate Handling

In this section of the “Advanced” Screen, a user is able to configure how to handle blank, unknown, and inappropriate values in a Gather. **Note: Report Writer combines these values into one ‘Not Valued’ category by default.**

- Select **[Tabulate Each Individually]** to see Blank, Unknown, and Inappropriate as separate categories in the Gather.

Blank/Unknown/Inappropriate Handling
<input checked="" type="radio"/> Tabulate Each Individually
<input type="radio"/> Combine into one 'Not Valued' Category
<input type="radio"/> Ignore all Blank/Unknown/Inappropriate

DI Report Writer Count Report	
Generated 07/01/2015	
Query EVERYONE	
Gather [Adhoc]	
Race	Count
=====	=====
Asian	1
White	2
unk	1
n/a	1
<blank>	1

- Select **[Combine into one ‘Not Valued’ Category]** to see all values combined into one category in the Gather.

Blank/Unknown/Inappropriate Handling

☐ Tabulate Each Individually

☒ Combine into one 'Not Valued' Category

☐ Ignore all Blank/Unknown/Inappropriate

DI Report Writer Count Report
Generated 07/01/2015
Query EVERYONE
Gather [Adhoc]

Race	Count
Asian	1
White	2
Not Valued	3

- Select **[Ignore all Blank/Unknown/Inappropriate]** to exclude these values from the Gather.

Blank/Unknown/Inappropriate Handling

☐ Tabulate Each Individually

☐ Combine into one 'Not Valued' Category

☒ Ignore all Blank/Unknown/Inappropriate

DI Report Writer Count Report
Generated 07/01/2015
Query EVERYONE
Gather [Adhoc]

Race	Count
Asian	1
White	2

The example below shows report output prior to configuring the “Advanced” screen and after configuring the “Advanced” screen:

Report output prior to any configuration of the “Advanced” screen:

DI Report Writer Count Report
Generated 07/01/2015
Query EVERYONE
Gather [Adhoc]

PAT_RACE01	Count
Asian	1
White	2

“Advanced” Screen Configuration:

Level 1 Level 2 Level 3

Data Element
Data Element PAT_RACE01 Width 20 Format

Subset
Column 1 PAT_RACE01 Operator = Column 2 5

Label Element
Data Element Title Race Width 20 Format
☒ Use As Text if Available

Report output after configuration of the “Advanced” screen:

Notice the following:

- the width of the label and field has changed
- the title is updated from “PAT_RACE01” to “Race”
- the output includes only the subset where Race is equal to 5 (White)

DI Report Writer Count Report
Generated 07/01/2015
Query EVERYONE
Gather [Adhoc]

Race	Count
White	2

Gathers with Across

Across in DI Report Writer allows the user to easily report on repeating data. Across is explained in the ‘How to Use Across in a Gather’ section of the Report Writer User Guide.

Gather Editor

Name:

Description:

Quick Advanced General

Across:

Coded Variable

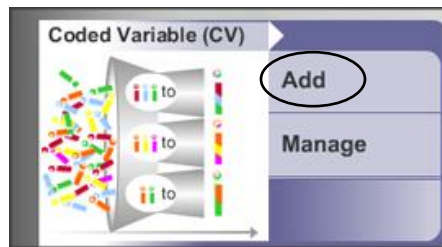
A Coded Variable is used to define and group a range of values into distinct, meaningful subsets.

Example: Records are grouped into a range of ages to define Pediatric and Adult age groups.

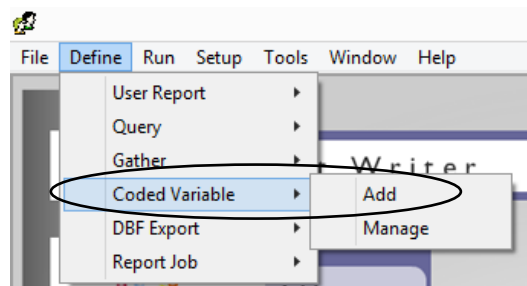
This section provides instruction on how to create and define a Coded Variable. Several examples of Coded Variables are also provided.

Adding a New Coded Variable

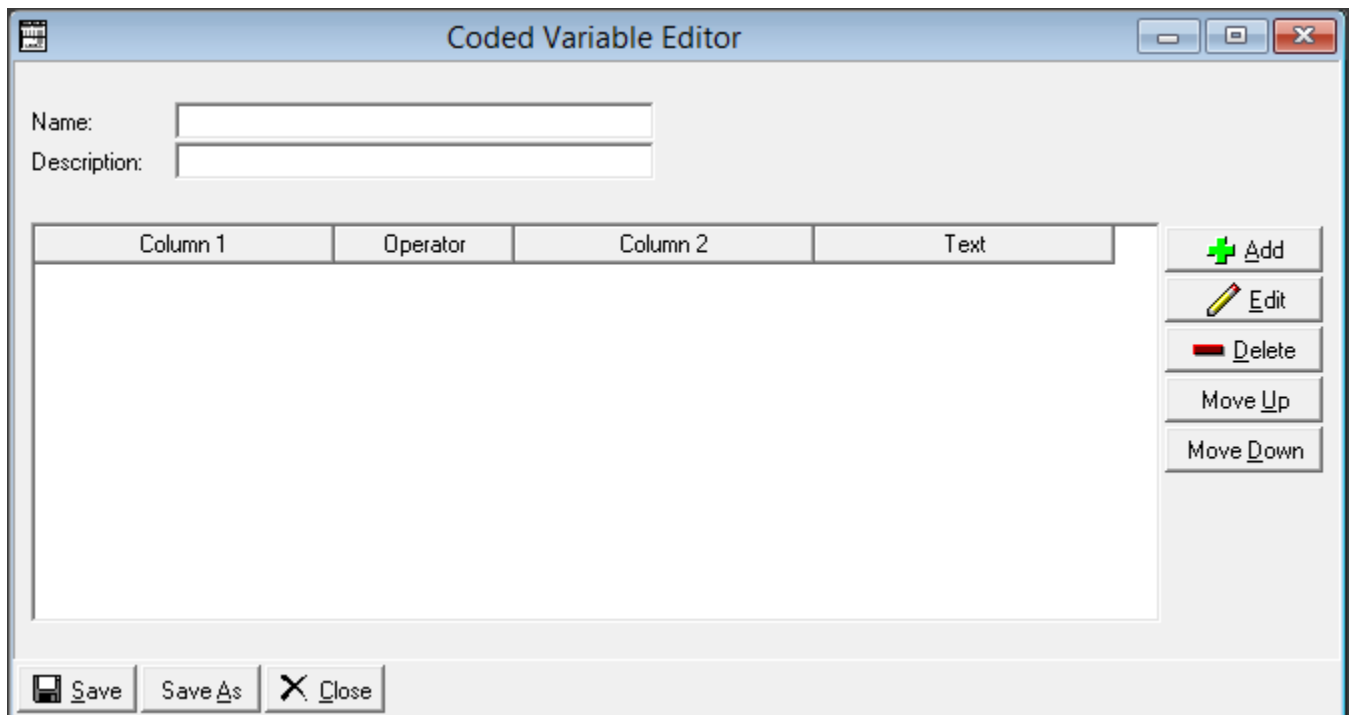
1. From the “Welcome” screen, select **[Add]** to add a Coded Variable.



Alternatively, from the “Define” option on the menu bar, select “Coded Variable” and then select “Add”.



2. The “Coded Variable Editor” screen opens.



3. Enter a “Name” for the Coded Variable. The “Name” is used to uniquely identify the Coded Variable. The “Name” field allows up to 12 alphanumeric characters and underscores. This field does not accept spaces. It must also start with an Alpha. No special characters (other than underscore) are allowed.
4. Enter a “Description” for the Coded Variable. The “Description” field provides additional information to help identify the Coded Variable. This field allows up to 27 characters (including spaces).
5. Select the **[Add]** option on the “Coded Variable Editor” to begin defining the Coded Variable criteria.

6. The “Coded Variable Editor” sub-screen opens.

A Coded Variable uses calculations to define ranges. The “Operator” on the “Coded Variable Editor” screen is used to define these calculations. Each range is defined using a format of <Column 1>, “Operator”, <Column 2>.

- “Column 1” is used to identify the object of the Coded Variable.
- The “Operator” is a logical or mathematical function.
- “Column 2” is used to specify Coded Variable criteria.

Below are several examples of Coded Variable definitions are provided. Refer to these example sections for guidance on defining Coded Variable criteria.

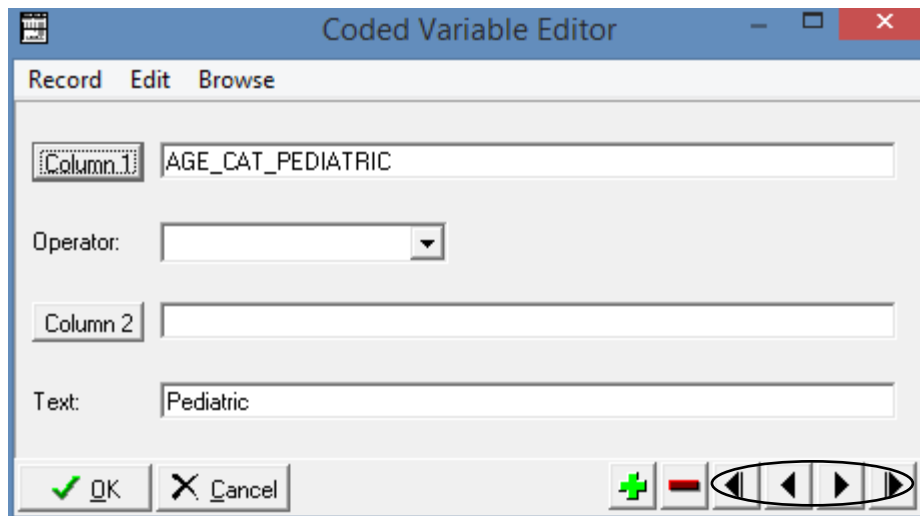
7. Select the [+] option on the “Coded Variable Editor” sub-screen to add additional Coded Variable criterion.

The screenshot shows the 'Coded Variable Editor' window with a blue title bar and standard window controls. Below the title bar are tabs for 'Record', 'Edit', and 'Browse'. The main area contains four input fields: 'Column 1' with the text 'AGE_CAT_PEDIATRIC', 'Operator' with a dropdown arrow, 'Column 2' which is empty, and 'Text' with the text 'Pediatric'. At the bottom, there are 'OK' and 'Cancel' buttons. To the right of these buttons is a row of navigation controls: a green plus sign in a circle (highlighted with a red circle), a red minus sign in a circle, and four arrows (left, right, double left, double right).

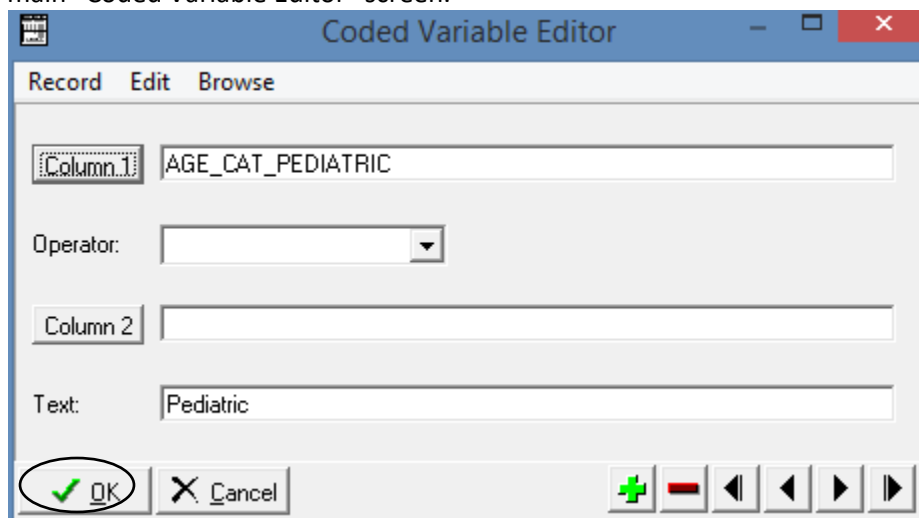
8. Select the [-] option on the “Coded Variable Editor” to delete a Coded Variable criterion.

This screenshot is identical to the one above, showing the 'Coded Variable Editor' window with the same data. However, in this instance, the red minus sign in a circle in the navigation bar at the bottom right is highlighted with a red circle, indicating the action to delete a criterion.

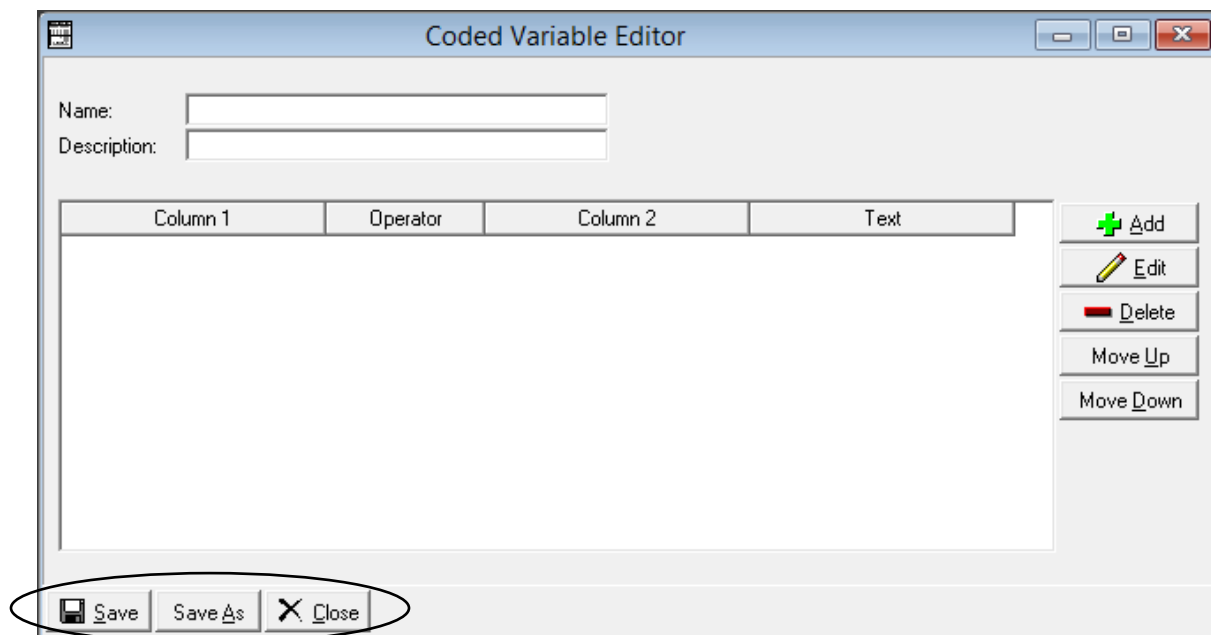
9. Use the navigation arrows to advance through all of the Coded Variable criteria.



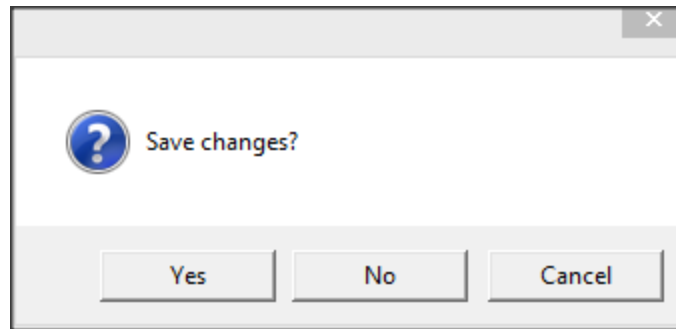
10. After all Coded Variable criteria is entered on the “Coded Variable Editor” sub-screen, select the **[OK]** option to return to the main “Coded Variable Editor” screen.



11. On the main “Coded Variable Editor” screen:



- a. Select **[Save]** to save the Coded Variable.
- b. Select **[Save As]** to save the Coded Variable with a different Coded Variable name.
- c. Select **[Close]** to exit the main “Coded Variable Editor” screen. Select **[Yes]** or **[No]** to save changes

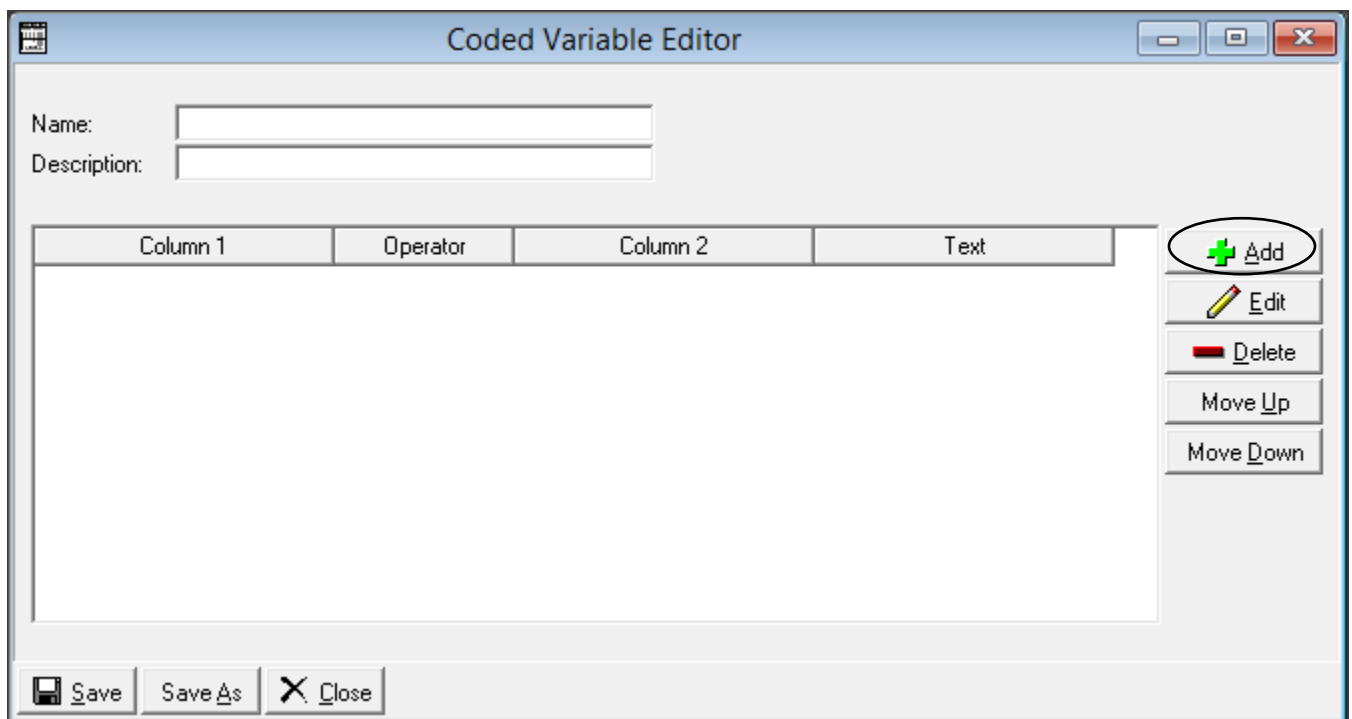


Example 1 – Basic Coded Variable – Age Ranges

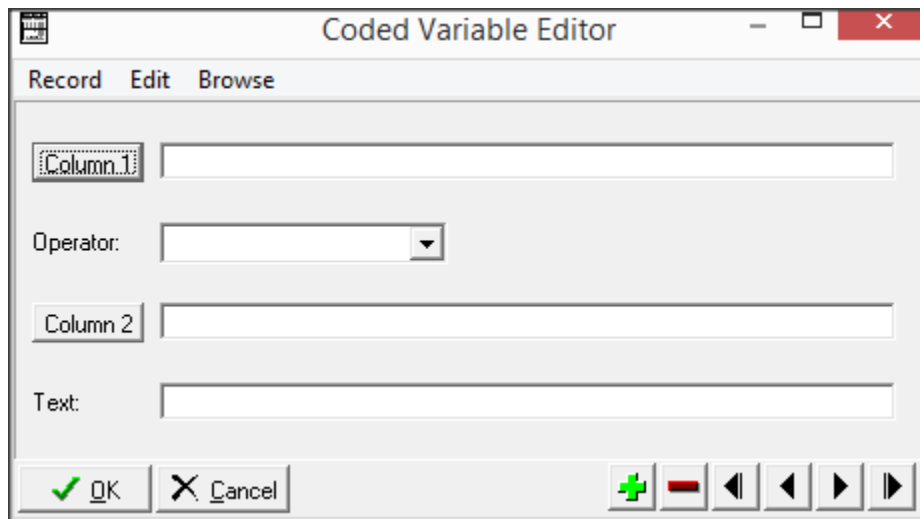
Follow the example below to define a basic Coded Variable using age calculations to define Age Groups of Adult and Pediatric.

To create a Coded Variable range for Pediatric:

1. Select the **[Add]** option on the main “Coded Variable Editor” to begin defining the Coded Variable criteria.

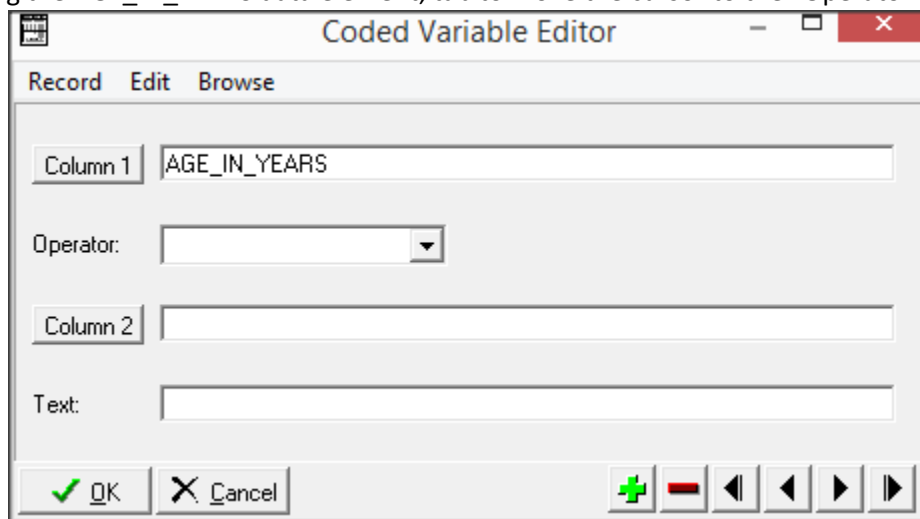


2. The “Coded Variable Editor” sub-screen opens.



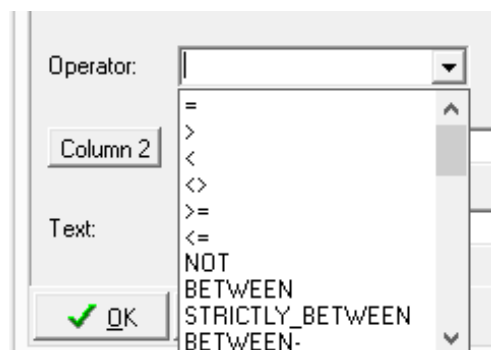
The screenshot shows the "Coded Variable Editor" window with a title bar containing a close button (X) and standard window controls. Below the title bar are three tabs: "Record", "Edit", and "Browse". The main area contains four input fields: "Column 1" (with a small icon to its left), "Operator:" (with a dropdown arrow), "Column 2", and "Text:". At the bottom, there are two buttons: "OK" (with a green checkmark) and "Cancel" (with a red X). To the right of these buttons is a set of navigation controls: a green plus sign, a red minus sign, and four arrows (left, right, double left, double right).

3. Select the **[Column 1]** option.
4. Locate the “Age in Years” field, using the steps provided in the ‘Using the “Data Elements” Screens’ section of the User Guide.
5. After selecting the AGE_IN_YEARS data element, tab to move the cursor to the “Operator” field.



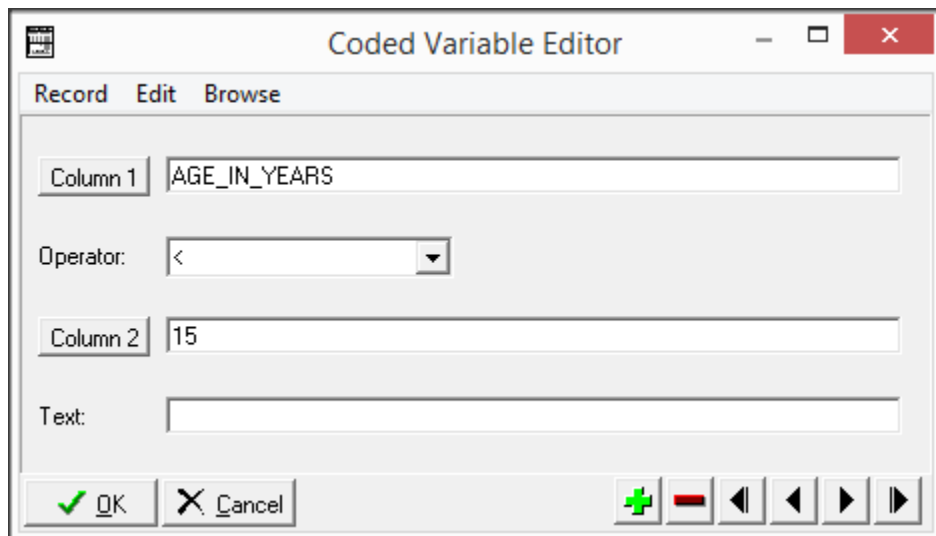
This screenshot shows the "Coded Variable Editor" window after the "AGE_IN_YEARS" data element has been selected. The "Column 1" field now contains the text "AGE_IN_YEARS". The "Operator:" field remains empty with its dropdown arrow visible. The "Column 2" and "Text:" fields are still empty. The bottom buttons and navigation controls are the same as in the previous screenshot.

12. Select the drop down arrow to view a list of operators. Select the “<” operator.



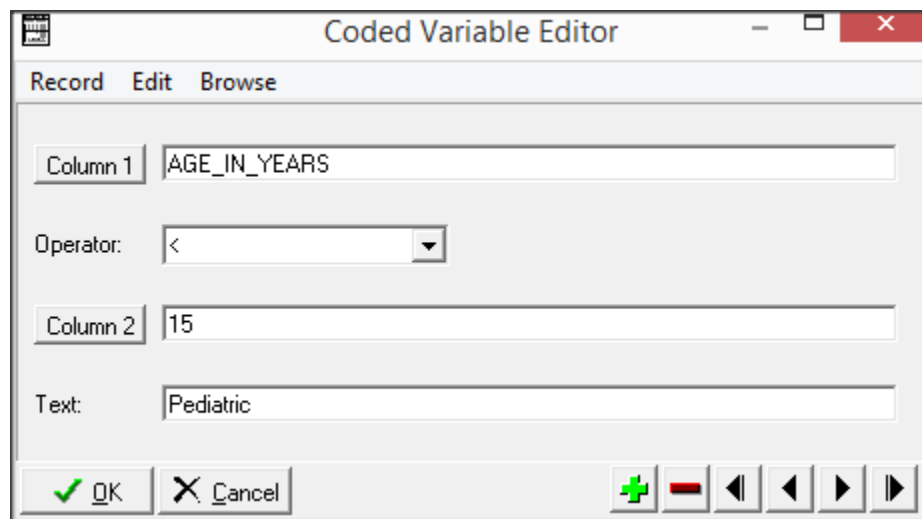
This is a close-up of the "Operator:" dropdown menu. The menu is open, showing a list of operators: "=", ">", "<", "<>", ">=", "<=", "NOT", "BETWEEN", "STRICTLY_BETWEEN", and "BETWEEN-". The "<" operator is highlighted. The "Column 2" and "Text:" fields are visible in the background, and the "OK" button is at the bottom left.

13. Tab to move the cursor to the “Column 2” field. Enter a value of “15” to identify Pediatric records.



The screenshot shows the 'Coded Variable Editor' window. It has a title bar with a minus, maximize, and close button. Below the title bar are three tabs: 'Record', 'Edit', and 'Browse'. The 'Record' tab is active. Inside the window, there are four input fields: 'Column 1' with the text 'AGE_IN_YEARS', 'Operator' with a dropdown menu showing '<', 'Column 2' with the text '15', and 'Text' which is empty. At the bottom left are 'OK' and 'Cancel' buttons. At the bottom right is a row of navigation buttons: a green plus button, a red minus button, and four arrow buttons (left, right, double left, double right).

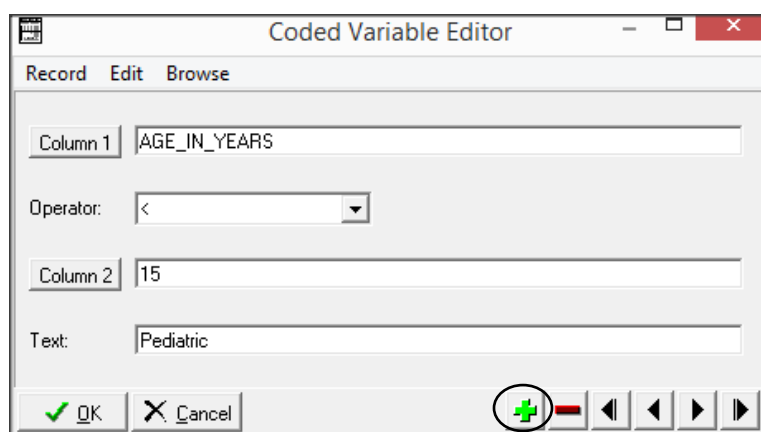
14. Enter “Pediatric” into the “Text” field. This is the label used to identify the Pediatric range in report output.



This screenshot is similar to the previous one, but the 'Text' field now contains the word 'Pediatric'. All other fields and buttons remain the same.

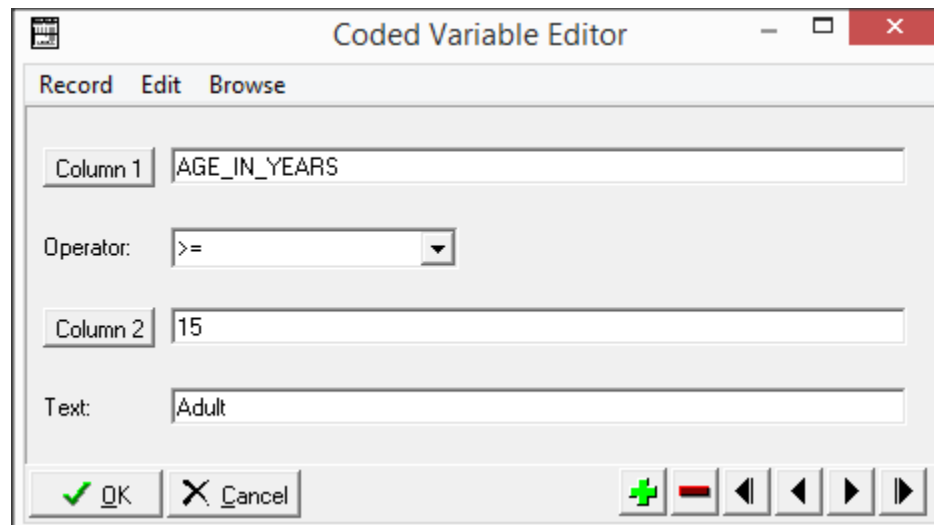
To create a Coded Variable range for Adult:

1. Select the [+] to add another Coded Variable criterion.



This screenshot shows the same 'Coded Variable Editor' window as before, but the green plus button in the bottom right navigation bar is circled in red, indicating it should be selected to add another criterion.

2. A blank “Coded Variable Editor” sub-screen opens.
 1. Select “AGE_IN_YEARS” for **[Column 1]**.
 2. Select “>=” for the **[Operator]**.
 3. Enter 15 in the “Column 2” field.
 4. Enter “Adult” into the “Text” field. This is the label used to identify the Adult range in report output.



3. Select **[OK]** to return to the main “Coded Variable Editor” screen.

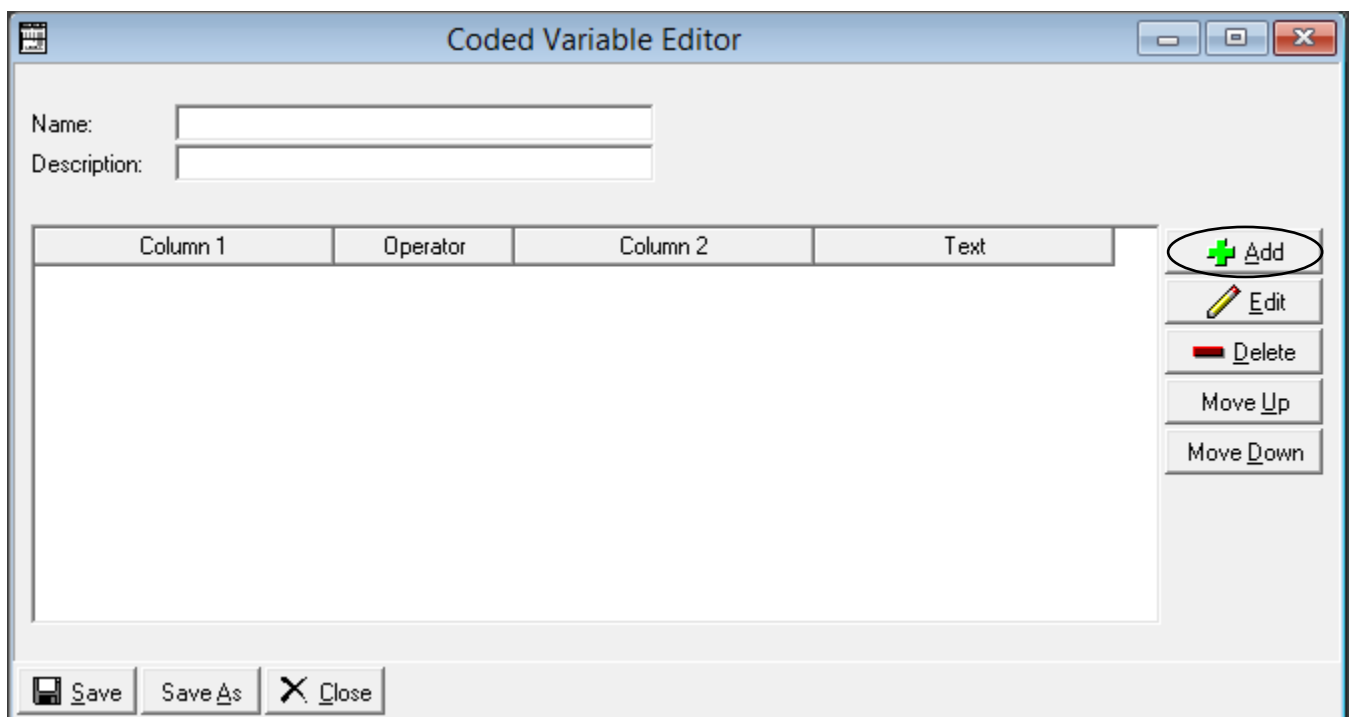
Example 2 – Basic Coded Variable Using Pre-Defined Queries

Coded Variables are also created from pre-existing queries.

Note: It is recommended that if a Query exists, use the pre-existing Query to build the Coded Variable.

The steps below demonstrate how to create an Age Range Coded Variable from pre-existing Adult and Pediatric queries.

1. Select the **[Add]** option on the main “Coded Variable Editor” screen.



2. The “Coded Variable Editor” sub-screen opens.

The screenshot shows the "Coded Variable Editor" window. It has a title bar with a minus, maximize, and close button. Below the title bar are three tabs: "Record", "Edit", and "Browse". The "Record" tab is active. The window contains two main input sections. The first section has a label "Column 1" followed by a text input field. Below this is a label "Operator:" followed by a dropdown menu. The second section has a label "Column 2" followed by a text input field. Below this is a label "Text:" followed by a text input field. At the bottom of the window are two buttons: "OK" (with a green checkmark icon) and "Cancel" (with a red X icon). To the right of these buttons is a set of navigation icons: a green plus icon, a red minus icon, and four arrow icons (left, right, double left, double right).

3. Select the **[Column 1]** option. The “Data Elements” screen opens. Select the “Queries” tab on the “Data Elements” screen.

The screenshot shows the "Data Elements" window. It has a title bar with a minus, maximize, and close button. Below the title bar are four tabs: "Data Elements", "Queries", "Coded Variables", and "Custom Elements". The "Queries" tab is active. The window contains a table with two columns: "Name" and "Description". The table has three rows: "ADULT", "GENDER_FEMALE", and "PEDIATRIC". The "ADULT" row is highlighted in blue. To the right of the table are three buttons: "Select", "Search" (with a magnifying glass icon), and "Close" (with a red X icon).

4. Double click the “Adult” Query to select it. Tab to the “Text” field and type Adult.

The screenshot shows the "Coded Variable Editor" window again. The "Record" tab is active. The "Column 1" text input field now contains the text "ADULT". The "Text:" text input field now contains the text "Adult". All other elements, including the "Operator:" dropdown, the "Column 2" field, and the bottom buttons and navigation icons, remain the same as in the previous screenshot.

5. Select the **[+]** to add another Coded Variable criterion.

The screenshot shows the 'Coded Variable Editor' window with the following fields: 'Column 1' (ADULT), 'Operator' (empty dropdown), 'Column 2' (empty), and 'Text' (Adult). A green plus icon in the bottom right corner is circled, indicating the button to add another criterion.

6. A blank “Coded Variable” sub-screen opens. Select the **[Column 1]** option.

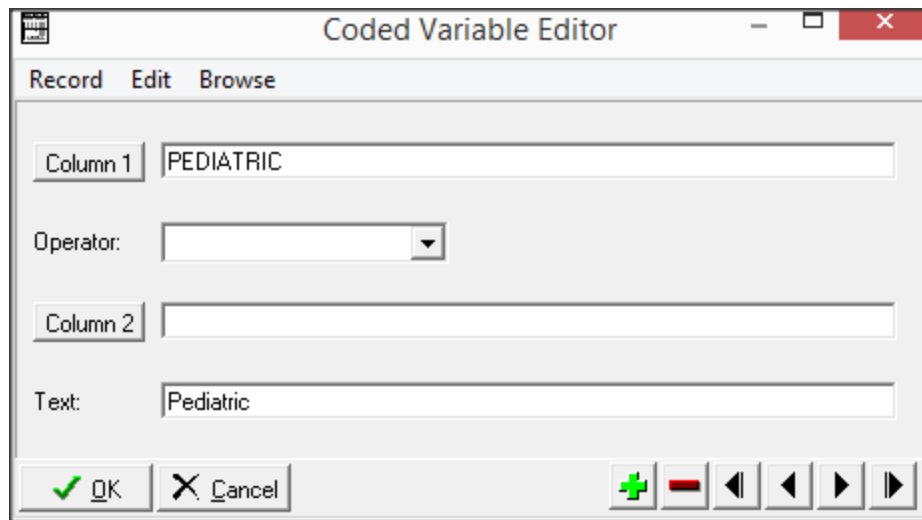
The screenshot shows the 'Coded Variable Editor' window with the following fields: 'Column 1' (highlighted with a dashed border), 'Operator' (empty dropdown), 'Column 2' (empty), and 'Text' (empty). The green plus icon in the bottom right corner is still visible.

7. The “Data Elements” screen opens. Select the “Queries” tab on the “Data Elements” screen.

The screenshot shows the 'Data Elements' window with the 'Queries' tab selected. The table has two columns: 'Name' and 'Description'. The rows are: 'ADULT', 'GENDER_FEMALE', and 'PEDIATRIC'. The 'ADULT' row is highlighted in blue. The 'Select', 'Search', and 'Close' buttons are visible on the right.

Name	Description
ADULT	
GENDER_FEMALE	
PEDIATRIC	

8. Double click the “Pediatric” Query to select it.
9. Tab to the “Text” field and type Pediatric.



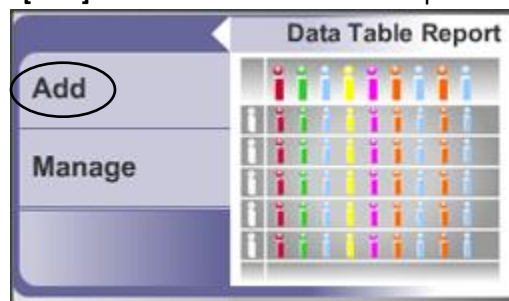
10. Select **[OK]** to return to the main “Coded Variable Editor” screen.

Data Table Report

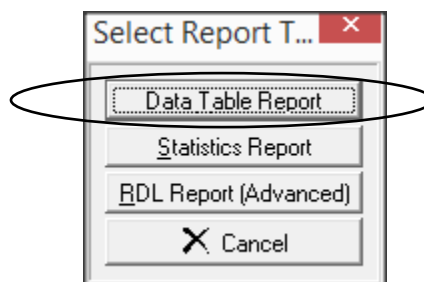
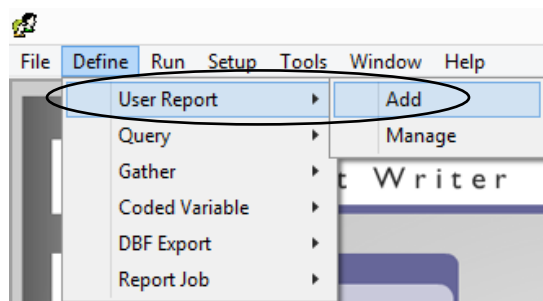
In a Data Table Report, data is organized in a list format using rows and columns to display the report output.

Adding a New Data Table Report

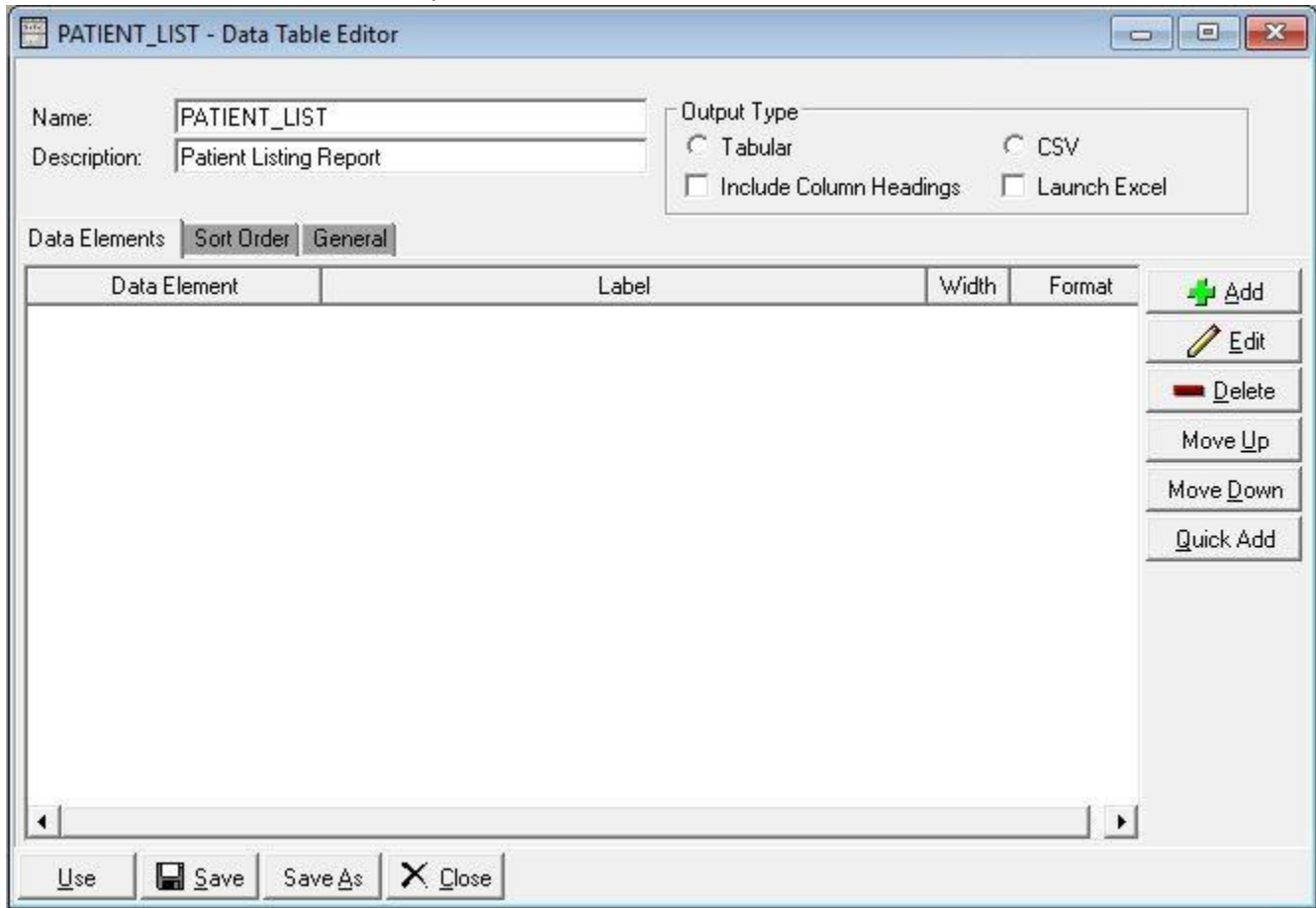
1. From the “Welcome” screen, select **[Add]** to add a new Data Table Report.



Alternatively, from the “Define” option on the menu bar, select “User Report” and then select “Add”. Select **[Data Table Report]** on the “Select Report Type” screen.



2. The “Data Table Editor” screen opens.

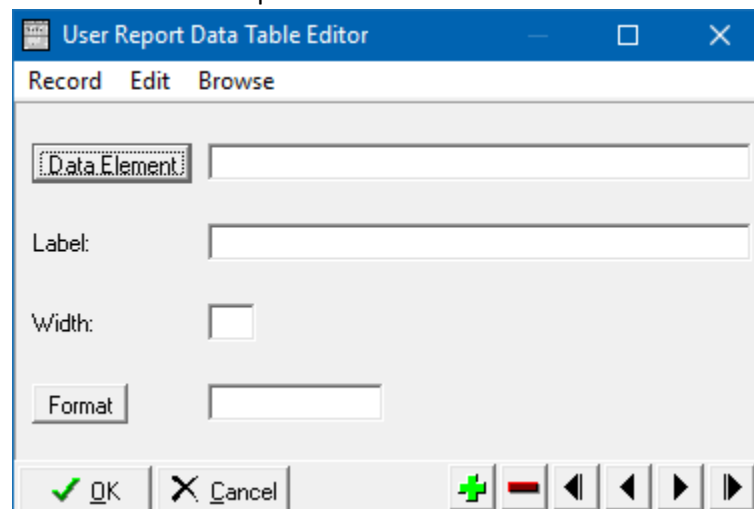


The screenshot shows the "PATIENT_LIST - Data Table Editor" window. It has a title bar with standard window controls. Below the title bar, there are two text input fields: "Name:" with the value "PATIENT_LIST" and "Description:" with the value "Patient Listing Report". To the right of these fields is an "Output Type" section with two radio buttons: "Tabular" (selected) and "CSV". Below the radio buttons are two checkboxes: "Include Column Headings" and "Launch Excel". Below these fields is a tabbed interface with three tabs: "Data Elements", "Sort Order", and "General". The "Data Elements" tab is active, showing a table with four columns: "Data Element", "Label", "Width", and "Format". The table is currently empty. To the right of the table is a vertical toolbar with buttons: "Add" (green plus icon), "Edit" (pencil icon), "Delete" (red minus icon), "Move Up", "Move Down", and "Quick Add". At the bottom of the window is a row of buttons: "Use", "Save", "Save As", and "Close".

3. Enter a “Name” for the Data Table Report. The “Name” is used to uniquely identify the Data Table Report. The “Name” field allows up to 20 alphanumeric characters and underscores. This field does not accept spaces. It must also start with an Alpha. No special characters (other than underscore) are allowed.
4. Enter a “Description” for the Data Table Report. The “Description” field provides additional information to help identify the Data Table Report. This field allows up to 27 characters (including spaces).
5. Select the **[Add]** option to add fields to the report.

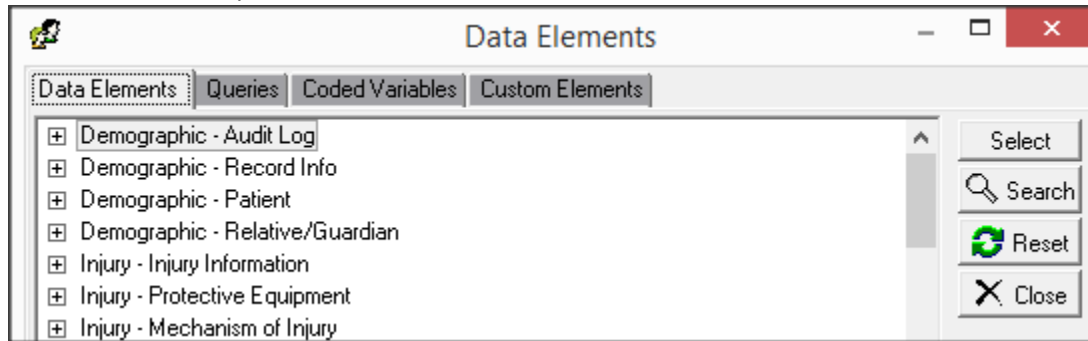


6. The “User Report Data Table Editor” screen opens.

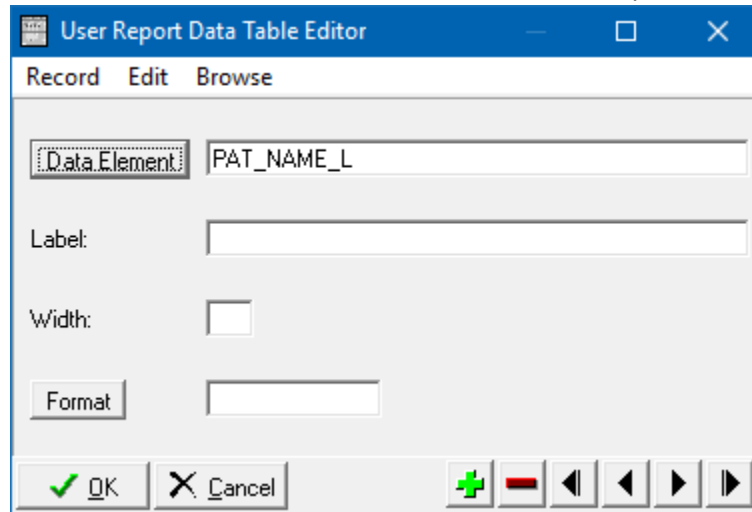


The screenshot shows the "User Report Data Table Editor" window. It has a title bar with standard window controls. Below the title bar is a menu bar with three options: "Record", "Edit", and "Browse". Below the menu bar is a form with four input fields: "Data Element:" (with a dotted border), "Label:", "Width:", and "Format:". At the bottom of the window is a row of buttons: "OK" (green checkmark icon), "Cancel" (red X icon), and a set of navigation buttons (green plus, red minus, left arrow, right arrow).

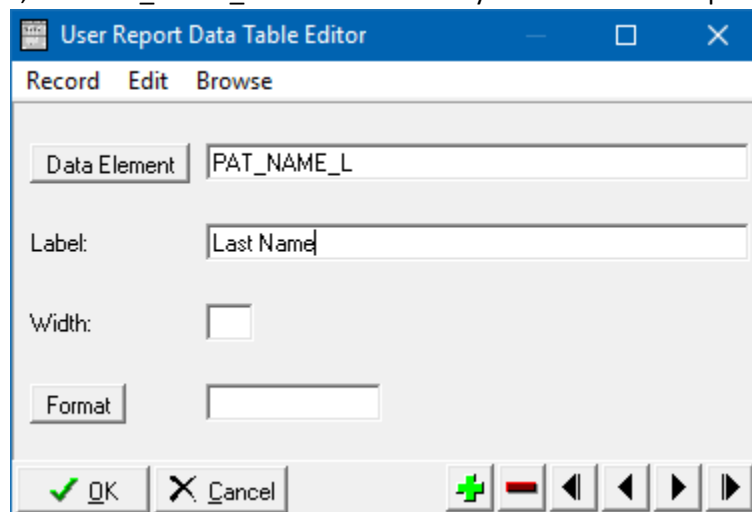
7. Select the **[Data Element]** button.
8. The “Data Elements” screen opens.



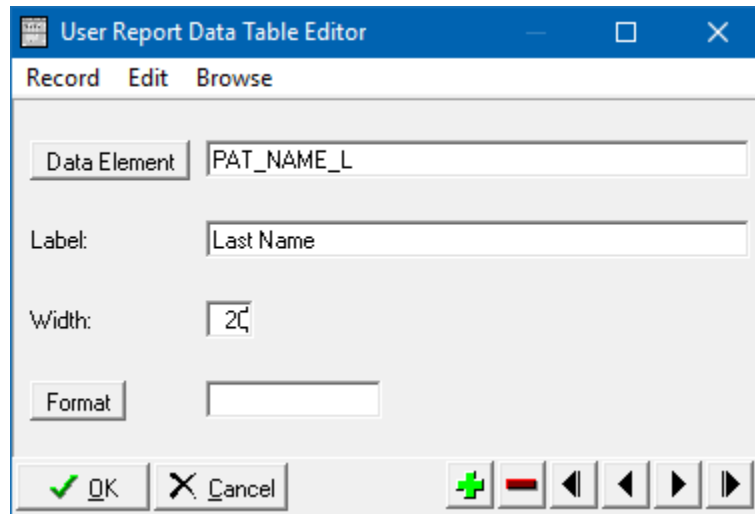
9. Using the steps provided in the ‘Using the “Data Elements” Screens’ section of the User Guide, locate fields to add to this report. Double click to select the fields and return to the “User Report Data Table Editor” screen.



10. Enter a “Label” for the field. The label identifies the field on the report output. If the “Label” is not entered, then the report output displays the field name. **Example:** In the screen above, “PAT_NAME_L” is the field name. If a “Label” is not entered, the “PAT_NAME_L” is used to identify the field on the report output.



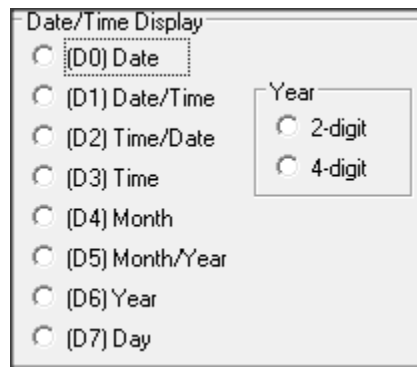
11. Enter a “Width” for the field. The “Width” controls the width of this column on the report output. **Note: Report Writer already defaults the Width to the character limit of the field. This option allows a user to change the width from the default.**



12. Select the **[Format]** option. The “Format String Configuration” screen opens. Use this screen to set advanced formatting for the field. Select **[OK]** to save any changes on the “Format String Configuration” screen.

Date/Time Display

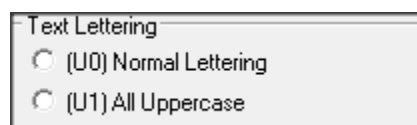
This format option controls how date and time fields display on report output.



- Select **[D0 Date]** to format an event field as date only, mm/dd/yyyy (07/01/2015).
- Select **[D1 Date/Time]** to format an event field as mm/dd/yyyy hh:mm (07/01/2015 10:01).
- Select **[D2 Time/Date]** to format an event as hh:mm mm/dd/yyyy (10:01 07/01/2015).
- Select **[D3 Time]** to format an event field as time only, hh:mm (10:01).
- Select **[D4 Month]** to format an event field as Month only (July).
- Select **[D5 Month/Year]** to format an event as Month/Year (July/15).
- Select **[D6 Year]** to format an event as a 2-digit year only (15).
- Select **[D7 Day]** to format an event as a Day of Week only (Monday).
- Select **[2-digit]** to format an event as a 2-digit year (15).
- Select **[4-digit]** to format an event as a 4-digit year (2015).

Text Lettering

This format option controls the display of text.

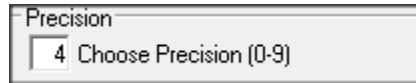


- Select **[U0 Normal Lettering]** to display a text field with normal lettering (as entered on the data entry screen).
- Select **[U1 All Uppercase]** to display a text field with all uppercase lettering.

Precision

This format option controls the precision of a decimal field.

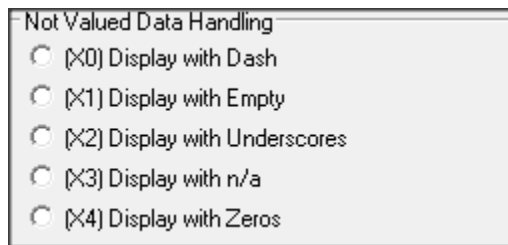
Precision represents the number of digits after a decimal (Example: If a user enters 97.92 for a decimal field and sets the precision equal to 1 on the format screen, then the decimal field displays as 97.9 on the report output).



- Enter a number (1-9) to **[Choose Precision]**.

Not Valued Data Handling

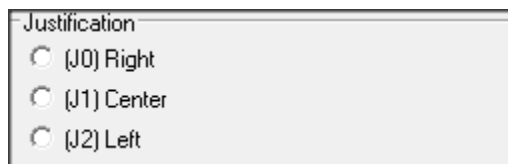
This format option controls the display of data that is not valued (blank).



- Select **[X0 Display with Dash]** to display blank data as a dash in the report output.
- Select **[X1 Display with Empty]** to display blank data as empty in the report output.
- Select **[X2 Display with Underscores]** to display blank data as an underscore in the report output.
- Select **[X3 Display with n/a]** to display blank data with a value of “n/a” in the report output.

Justification

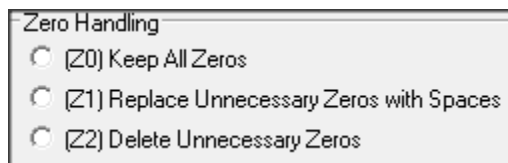
This format option controls the alignment of the data in the field.



- Select **[J0 Right]** to right align the column of data in the report output.
- Select **[J1 Center]** to center the column of data in the report output.
- Select **[J2 Left]** to left align the column of data in the report output.

Zero Handling

This format option controls the display of leading zeros in a numeric field.



- Select **[Z0 Keep all Zeros]** to keep leading zeros in the report output.
- Select **[Z1 Replace Unnecessary Zeros with Spaces]** to replace leading zeros with spaces in the report output.
- Select **[Z2 Delete Unnecessary Zeros]** to delete leading zeros with spaces in the report output.

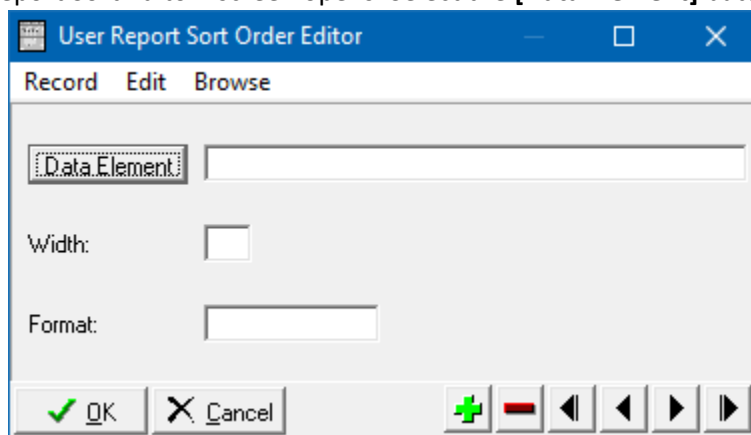
13. Repeat Steps 5 through 12 to add additional fields to the Data Table Report.

Sort Order

14. Select the “Sort Order” screen. The “Sort Order” screen is used to sort the data in the report output. **Tip: The default sort order for Report Writer output is ascending by Trauma Number.** Select the **[Add]** option to select a different field to use for sorting.



- The “User Report Sort Editor” screen opens. Select the **[Data Element]** button.



- The “Data Elements” screen opens. Locate the data element to be used for sorting data. Double click the data element to select it and return to the “Sort Order” screen.

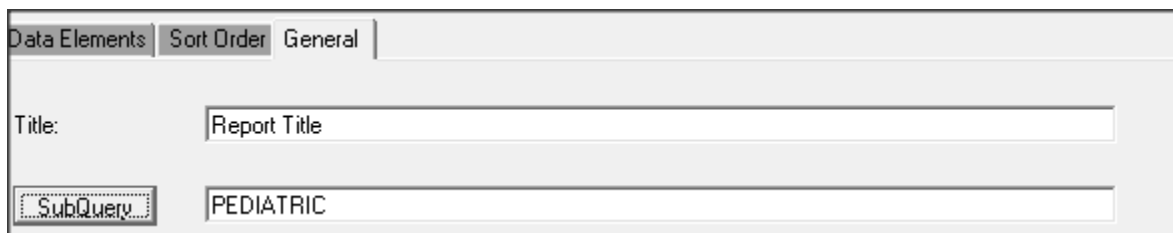
Report Options on the “General” Screen

15. Select the “General” screen. The “General” screen is used to define advanced reporting options.

- Enter a “Report Title” to display in the header of the report output.

Note: This “Report Title” is NOT displayed when the report output selected is Microsoft Excel®.

- Select the **[SubQuery]** button to select a Query to **always** run with this report. In the example below, a **[SubQuery]** of Pediatric is selected. When a **[SubQuery]** of Pediatrics is selected, the report output includes only the subset of Pediatric records.



- Output Type
 - Select **[Tabular]** to view report output in a table format using columns and rows. **Tip: This is the default option for report output.**

- Select **[CSV]** to view report output as comma-separated values in an Excel® spreadsheet.
 - Select **[Include Column Headings]** to include headings for the Excel® output.
 - Select **[Launch Excel]** to automatically open the report in Excel®.

Output Type

☒ Tabular

☐ CSV

☐ Include Column Headings

☐ Launch Excel

- Enter a **[Default Filename]** to automatically save the report output with the filename entered.

Default Filename:

Open User-Defined Data Table Report with Microsoft Excel®

To have your Data Table Report open automatically in Microsoft Excel®, select the following options. On the **Data Table Editor Window** in the “Output Type” section, select the following three items:

- CSV radio button
- Include Column Headings checkbox
- Launch Excel checkbox

Output Type

☐ Tabular

☒ CSV

☐ Include Column Headings

☐ Launch Excel

Data Table Reports and Across

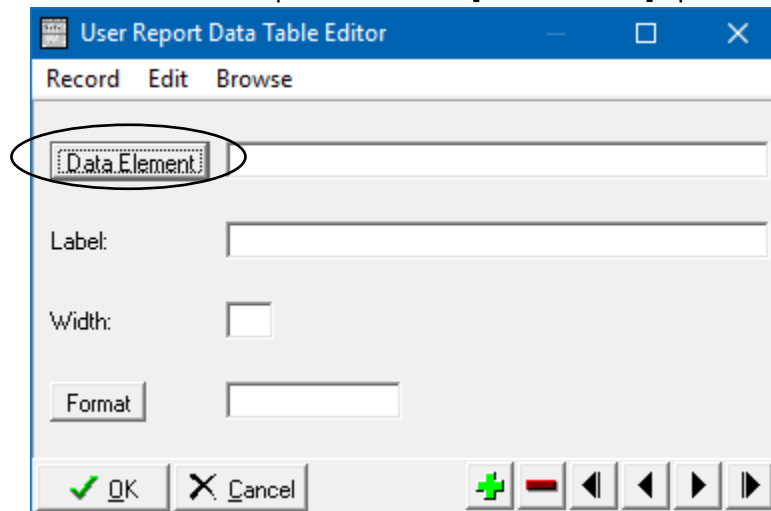
Across is explained in the ‘How to Use Across in a Report’ section of the User Guide.

Across:

16. After completing all steps, select one of the following options on the “Data Table Editor” screen:

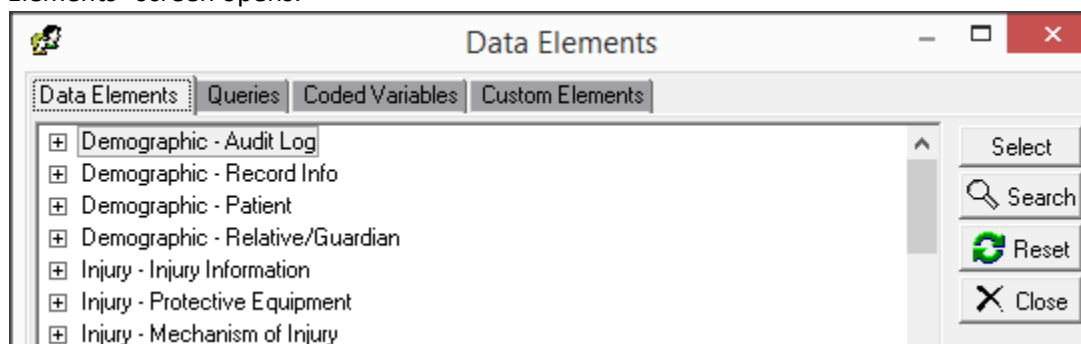
Example 1 – Basic Data Table Report Output to Excel.

1. Select the **[Add]** option on the “Data Table Editor” screen.
2. The “User Report Data Table Editor” screen opens. Select the **[Data Element]** option.



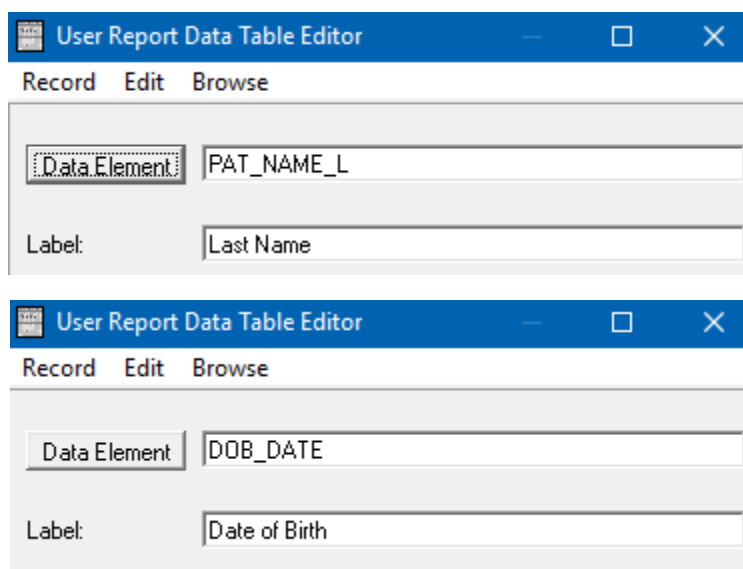
The screenshot shows the 'User Report Data Table Editor' window. The title bar is blue with the text 'User Report Data Table Editor'. Below the title bar are three tabs: 'Record', 'Edit', and 'Browse'. The 'Data Element' button is circled in the top section. Below it are fields for 'Label', 'Width', and 'Format'. At the bottom are 'OK', 'Cancel', and navigation buttons.

3. The “Data Elements” screen opens.



The screenshot shows the 'Data Elements' window. The title bar is blue with the text 'Data Elements'. Below the title bar are four tabs: 'Data Elements', 'Queries', 'Coded Variables', and 'Custom Elements'. The 'Data Elements' tab is selected. Below the tabs is a list of data elements: 'Demographic - Audit Log', 'Demographic - Record Info', 'Demographic - Patient', 'Demographic - Relative/Guardian', 'Injury - Injury Information', 'Injury - Protective Equipment', and 'Injury - Mechanism of Injury'. On the right side of the window are four buttons: 'Select', 'Search', 'Reset', and 'Close'.

4. Using the steps provided in the ‘Using the “Data Elements” Screens’ section of the User Guide, add 3 fields to this report: Patient Last Name, Patient Date of Birth, and Trauma Number



The top screenshot shows the 'User Report Data Table Editor' window with the 'PAT_NAME_L' data element selected. The 'Label' field is set to 'Last Name'. The bottom screenshot shows the same window with the 'DOB_DATE' data element selected. The 'Label' field is set to 'Date of Birth'.

User Report Data Table Editor

Record Edit Browse

Data Element: TRAUMA_NUM

Label: Trauma Number

5. Select the **[CSV]** radio button. Then select the **[Include Column Headings]** and **[Launch Excel]** checkboxes, all from the “Output Type” section on main Data Table Editor window.

Output Type

☐ Tabular ☒ CSV

☒ Include Column Headings ☒ Launch Excel

6. Select the **[Use]** option to use the report. Select the **[Run]** option to run the report. The report opens in Excel®.

	A	B	C	D
1	Last Name	Date of Birth	Trauma Number	
2	Smith	2/1/1955	20150001	
3	Jones	//	20150002	
4		//	20150003	
5		//	20150004	
6		//	20150005	
7		//	20150006	
8		//	20150007	

Example 2 – Using the Quick Add option for a Data Table Report

The **[Quick Add]** option allows a user to quickly select from a list of commonly used data elements.

1. Select the **[Quick Add]** option.

+ Add

Edit

Delete

Move Up

Move Down

Quick Add

2. The “Data Elements” screen opens. Select from the list of commonly used data elements. Then select **[OK]**.

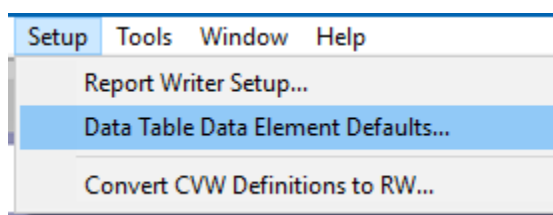
- The selected data elements are added to the report.

Data Element	Label	Width	Format
PAT_NAME_L	Last Name	20	
DOB_DATE	Date of Birth		
TRAUMA_NUM	Trauma Number		

Adding Fields to the Quick Add Screen

Follow the steps below to customize the **[Quick Add]** data elements screen.

- Select “Data Table Data Element Defaults...” from the “Setup” option.



- The “Data Table Data Element Default Record Manager” screen opens. Select the **[Add]** option.

Data Table Data Element Default Record Manager				
Id	Name	Description		
10	Trauma Number	Trauma Number		
100	Transfer In	Transfer In		
105	ED Arrival Date&Time	ED Arrival Date & Time		
110	ED Depart Date&Time	ED Departure Date & Time		
115	Time in ED	Time in ED		
120	Post ED Disposition	Post ED Disposition		
125	Systolic BP on Adm	Systolic BP on Admission		
130	Unas Resp Rate Adm	Unassisted Resp Rate on Admission		
135	GCS on Admission	GCS on Admission		
140	RTS on Admission	RTS on Admission		
145	ETOH on Admission	ETOH on Admission		
15	Arrival Date & Time	Patient Arrival Date & Time		
155	Discharge Status	Discharge Status		
160	Discharge Date	Discharge Date		
165	Discharge To	Discharge To		
170	Total Hospital Days	Total Hospital Days		
175	Total ICU Days	Total ICU Days		

3. The “Add Registry Default” screen opens.

- Enter a unique ID for the new quick add field.
- Enter a unique Name for the new quick add field.
- Enter a unique Description for the new quick add field.
- Then select the **[Add]** option on the “Add Registry Default” screen.

Add Registry Default

ID: 499

Name: Injury State

Description: Injury State

Add **Cancel**

- The “Registry Default Editor” screen opens. Select the **[Quick List]** option.

Registry Default Editor

ID: 499

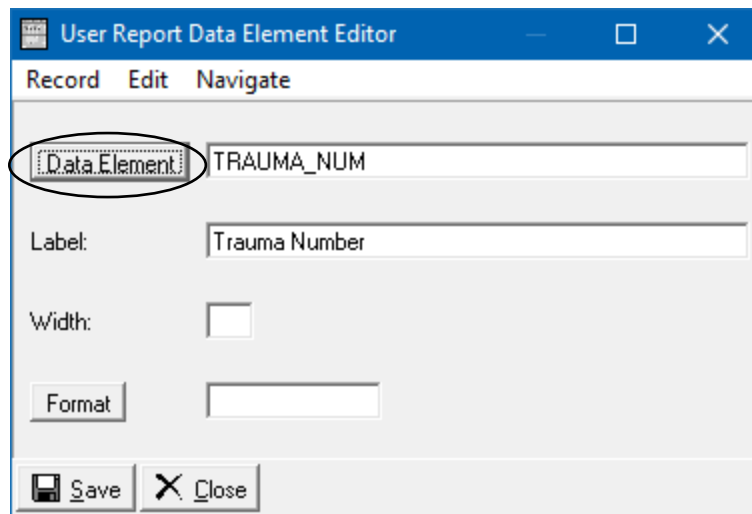
Name: Injury State

Description: Injury State

☒ **Quick List**

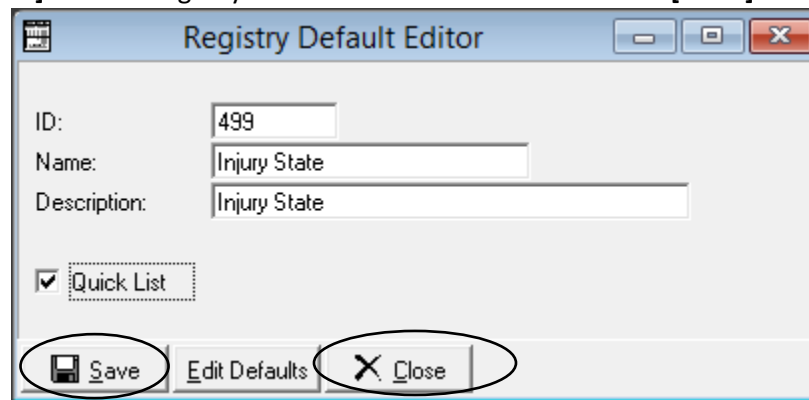
Save **Edit Defaults** **Close**

- Select the **[Edit Defaults]** option on the “Registry Default Editor” screen.
- The “User Report Data Element Editor” screen opens. Select the **[Field]** option. Locate the Injury State field and select it. Select **[Save]**. Then select **[Close]**.



The "User Report Data Element Editor" window has a menu bar with "Record", "Edit", and "Navigate". Below the menu bar, there is a "Data Element" label and a text field containing "TRAUMA_NUM". Below this, there is a "Label:" label and a text field containing "Trauma Number". Below that, there is a "Width:" label and a text field. Below that, there is a "Format" label and a text field. At the bottom, there are "Save" and "Close" buttons.

- Select **[Save]** on the "Registry Default Editor" screen. Then select **[Close]**.



The "Registry Default Editor" window has a menu bar with "File", "Edit", and "Window". Below the menu bar, there is an "ID:" label and a text field containing "499". Below that, there is a "Name:" label and a text field containing "Injury State". Below that, there is a "Description:" label and a text field containing "Injury State". Below that, there is a "Quick List" checkbox which is checked. At the bottom, there are "Save", "Edit Defaults", and "Close" buttons.

- Select **[Update Quick List]** on the "Data Table Element Default Record Manager" screen.



The "Data Table Element Default Record Manager" window has a menu bar with "File", "Edit", and "Window". Below the menu bar, there is an "Add" button with a green plus icon. Below that, there is an "Update Quick List" button. Below that, there is an "Edit" button with a yellow pencil icon. Below that, there is a "View" button with a magnifying glass icon. Below that, there is an "Edit Defaults" button. At the bottom, there is a "Close" button with a red X icon.

- Confirm the field is added to the "Quick Add" screen.

Data Elements X

<input type="checkbox"/> Trauma Number	<input type="checkbox"/> Post ED Disposition
<input type="checkbox"/> Patient Arrival Date & Time	<input type="checkbox"/> Systolic BP on Admission
<input type="checkbox"/> Medical Record Number	<input type="checkbox"/> Unassisted Resp Rate on Admission
<input type="checkbox"/> Patient Name	<input type="checkbox"/> GCS on Admission
<input type="checkbox"/> Age	<input type="checkbox"/> RTS on Admission
<input type="checkbox"/> Gender	<input type="checkbox"/> ETOH on Admission
<input type="checkbox"/> Race	<input type="checkbox"/> Discharge Status
<input type="checkbox"/> Ethnicity	<input type="checkbox"/> Discharge Date
<input type="checkbox"/> Injury Date	<input type="checkbox"/> Discharge To
<input type="checkbox"/> Place of Injury	<input type="checkbox"/> Total Hospital Days
<input type="checkbox"/> Injury ZIP	<input type="checkbox"/> Total ICU Days
<input type="checkbox"/> Primary E-Code	<input type="checkbox"/> Total Vent Days
<input type="checkbox"/> Primary E-Code Description	<input type="checkbox"/> Primary Payor
<input type="checkbox"/> TRISS	<input type="checkbox"/> Injury Severity Score (ISS)
<input type="checkbox"/> Injury Type	<input type="checkbox"/> Injury Text
<input type="checkbox"/> Patient State	<input type="checkbox"/> Injury State

Statistics Report

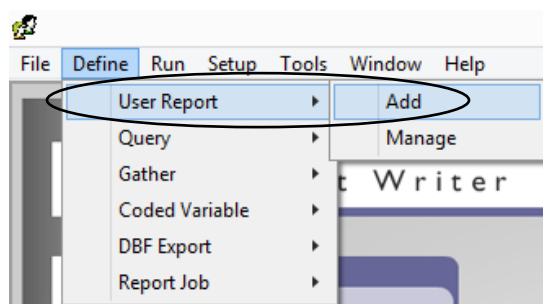
A Statistics Report is a report summary that uses mathematical calculations.

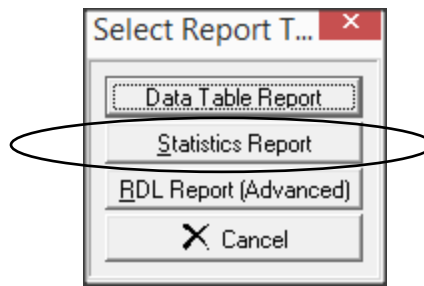
Adding a Statistics Report

1. From the “Welcome” screen, select **[Add]** to add a new Statistics Report.



Alternatively, from the “Define” option on the menu bar, select “User Report” and then select “Add”. Select **[Statistics Report]** on the “Select Report Type” screen.





2. The “Statistics Editor” screen opens.

3. Enter a “Name” for the Statistics Report. The “Name” is used to uniquely identify the Statistics Report. The “Name” field allows up to 20 alphanumeric characters and underscores. This field does not accept spaces. It must also start with an Alpha. No special characters (other than underscore) are allowed.
4. Enter a “Description” for the Statistics Report. The “Description” field provides additional information to help identify the Statistics Report. This field allows up to 27 characters (including spaces).
5. Select from report output options:
 - Select **[Tabular Output]** to view the report in a format with columns and rows of data.
 - Select **[CSV Output]** to view the report as comma-separated values in an Excel® spreadsheet.
 - Select **[Launch Excel]** to automatically open the csv output in Excel®.

☐ Tabular Output
 ☐ CSV Output
 ☐ Launch Excel

Note: The report options below are not currently used:

Sub Title:
 Default: Width: Format:

- Select the **[Add]** option to add a new statistic to the report.

+ Add

Edit

Delete

Move Up

Move Down

- Select a **[Statistic]**.

Statistics

Sub Title:
 Default:

Stat	Category
AVG	...

User Report Statistics Editor

Record Edit Browse

Statistic:

AVG, Average
 STD, Standard Deviation
 MIN, Minimum
 MAX, Maximum
 SUM, Sum
 SSQ, Sum of Squares
 CNT, Count Subset
 CTV, Count Valued
 CTN, Count Not Valued
 CTU, Count Unknown

Data Element
 Subset
 Label:

List of Available Statistics

Statistic	Description
AVG, Average	Average value of the specified data element.
STD, Standard Deviation	Used to quantify the amount of variation or dispersion of a set of data values.
MIN, Minimum	Minimum value for the specified data element.
MAX, Maximum	Maximum value for the specified data element.
SUM, Sum	Sum of values for the specified data element.
SSQ, Sum of Squares	Sum of squares for the specified data element.
CNT, Count Subset	Count of the number of included records. Data Element is not required for this statistic.
CTV, Count Valued	Count of valued data for the specified data element.
CTN, Count Not Valued	Count of not valued data for the specified data element.
CTU, Count Unknown	Count of unknown data for the specified data element.
CTI, Count Inappropriate	Count of inappropriate data for the specified data element.

Statistic	Description
PCS, Percent Subset in Query	Percent of records in the Subset. The numerator is equal to the defined subset. The denominator is equal to all records.
PSS, Percent Subset in Subset	Percent of records in the Query (subset). The numerator is equal to the Query. The denominator is equal to the subset.
PCV, Percent Valued	Percent of valued data for the specified data element.
PCN, Percent Not Valued	Percent of not valued data for the specified data element.
PCU, Percent Unknown	Percent of unknown data for the specified data element.
PCI, Percent Inappropriate	Percent of inappropriate data for the specified data element.
MED, Median	Median value, of a range of values. The “middle” of a sorted list of numbers.
Q1, 1 st Quartile	The first quartile (Q1) is defined as the middle number between the smallest number and the median of the data set.
Q2, 2 nd Quartile	The second quartile (Q2) is the median of the data.
Q3, 3 rd Quartile	The third quartile (Q3) is the middle value between the median and the highest value of the data set.
P10, 10 th Percentile	The 10th percentile is the value (or score) below which 10 percent of the observations may be found.
P20, 20 th Percentile	The 20th percentile is the value (or score) below which 20 percent of the observations may be found.
P30, 30 th Percentile	The 30th percentile is the value (or score) below which 30 percent of the observations may be found.
P40, 40 th Percentile	The 40th percentile is the value (or score) below which 40 percent of the observations may be found.
P50, 50 th Percentile	The 50th percentile is the value (or score) below which 50 percent of the observations may be found.
P60, 60 th Percentile	The 60th percentile is the value (or score) below which 60 percent of the observations may be found.
P70, 70 th Percentile	The 70th percentile is the value (or score) below which 70 percent of the observations may be found.
P80, 80 th Percentile	The 80th percentile is the value (or score) below which 80 percent of the observations may be found.
P90, 90 th Percentile	The 90th percentile is the value (or score) below which 90 percent of the observations may be found.

8. Select the **[Data Element]** option to specify a data element for the selected statistic. Follow the instructions from the 'Using the "Data Elements" Screens' section of the User Guide to select a data element.

The screenshot shows the 'User Report Statistics Editor' dialog box. It has a title bar with standard window controls. Below the title bar are three tabs: 'Record', 'Edit', and 'Browse'. The 'Edit' tab is active. Inside the dialog, there are several input fields and buttons. The 'Statistic' field is a dropdown menu. Below it, the 'Data Element' button is circled in red. To the right of 'Data Element' is an empty text box. Below that is the 'Subset' button, followed by another empty text box. Further down is the 'Label' field, which is also empty. Below the 'Label' field is the 'Width' field, which is empty, followed by a 'Format' button and another empty text box. At the bottom left are 'OK' and 'Cancel' buttons. At the bottom right are several navigation buttons: a green plus sign, a red minus sign, and four arrow buttons (left, right, double left, double right).

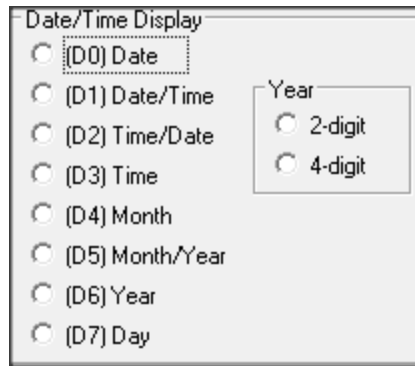
9. Select the **[Subset]** option to specify a subset for the selected statistic.

This screenshot is similar to the previous one, showing the 'User Report Statistics Editor' dialog box. In this instance, the 'Subset' button is circled in red instead of the 'Data Element' button. All other elements, including the 'Statistic' dropdown, 'Label' field, 'Width' field, 'Format' button, and navigation buttons at the bottom, remain the same as in the previous screenshot.

10. Enter a "Label" for the statistic. **Note: If a label is not entered, then the report output uses the selected statistic and the selected data element name to create a label.**
11. Enter a "Width" for the statistic. **Note: Report Writer already defaults the width to the character limit of the field. This option allows a user to change the width from the default.**
12. Select the **[Format]** option. The "Format String Configuration" screen opens. Use this screen to set advanced formatting for the field. Select **[OK]** to save any changes on the "Format String Configuration" screen.

Date/Time Display

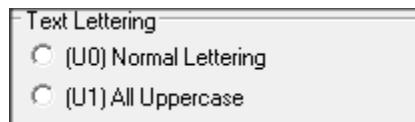
This format option controls how date and time fields display on report output.

A dialog box titled "Date/Time Display" with a list of radio button options: (D0) Date, (D1) Date/Time, (D2) Time/Date, (D3) Time, (D4) Month, (D5) Month/Year, (D6) Year, and (D7) Day. The (D0) Date option is selected. To the right of the list is a sub-dialog box titled "Year" with two radio button options: 2-digit and 4-digit. The 4-digit option is selected.

- Select **[D0 Date]** to format an event field as date only, mm/dd/yyyy (07/01/2015).
- Select **[D1 Date/Time]** to format an event field as mm/dd/yyyy hh:mm (07/01/2015 10:01).
- Select **[D2 Time/Date]** to format an event as hh:mm mm/dd/yyyy (10:01 07/01/2015).
- Select **[D3 Time]** to format an event field as time only, hh:mm (10:01).
- Select **[D4 Month]** to format an event field as Month only (July).
- Select **[D5 Month/Year]** to format an event as Month/Year (July/15).
- Select **[D6 Year]** to format an event as a 2-digit year only (15).
- Select **[D7 Day]** to format an event as a Day of Week only (Monday).
- Select **[2-digit]** to format an event as a 2-digit year (15).
- Select **[4-digit]** to format an event as a 4-digit year (2015).

Text Lettering

This format option controls the display of text.

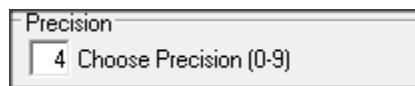
A dialog box titled "Text Lettering" with two radio button options: (U0) Normal Lettering and (U1) All Uppercase. The (U0) Normal Lettering option is selected.

- Select **[U0 Normal Lettering]** to display a text field with normal lettering (as entered on the data entry screen).
- Select **[U1 All Uppercase]** to display a text field with all uppercase lettering.

Precision

This format option controls the precision of a decimal field.

Precision represents the number of digits after a decimal (Example: If a user enters 97.92 for a decimal field and sets the Precision equal to 1 on the format screen, then the decimal field displays as 97.9 on the report output).

A dialog box titled "Precision" with a text input field containing the number "4" and a label "Choose Precision (0-9)".

- Enter a number (1-9) to **[Choose Precision]**.

Not Valued Data Handling

This format option controls the display of data that is not valued (blank).

- Select **[X0 Display with Dash]** to display blank data as a dash in the report output.
- Select **[X1 Display with Empty]** to display blank data as empty in the report output.
- Select **[X2 Display with Underscores]** to display blank data as an underscore in the report output.
- Select **[X3 Display with n/a]** to display blank data with a value of “n/a” in the report output.

Justification

This format option controls the alignment of the data in the field.

- Select **[J0 Right]** to right align the column of data in the report output.
- Select **[J1 Center]** to center the column of data in the report output.
- Select **[J2 Left]** to left align the column of data in the report output.

Zero Handling

This format option controls the display of leading zeros in a numeric field.

- Select **[Z0 Keep all Zeros]** to keep leading zeros in the report output.
- Select **[Z1 Replace Unnecessary Zeros with Spaces]** to replace leading zeros with spaces in the report output.
- Select **[Z2 Delete Unnecessary Zeros]** to delete leading zeros with spaces in the report output.

13. Use of the “Categories” screen is described in ‘Example 1 – Using Categories in a Statistical Report’.

14. Select the “General” screen.

- Enter a “Report Title” and “Sub Title”.
- Select the **[CSV Output]** option to view report output as comma-separated values in an Excel® spreadsheet.
 - Select **[Include Column Headings]** to include headings for the Excel® output.
 - Select **[Launch Excel]** to automatically open the report in Excel®.

Statistics | **Categories** | General

Report Title:

Sub Title:

☐ CSV Output ☐ Include Headings ☐ Launch Excel

Statistics Report and Across

Across in Report Writer allows the user to easily report on repeating data. Across is explained in the 'How to Use Across in a Report' section of the User Guide.

Across:

Using Categories in a Statistical Report

Categories divide statistics into sub-aggregates, presenting a user with a cross-tabulation report. Categories are typically created from Coded Variables, numeric ranges, date ranges, or menu-driven fields.

Examples of categories in a statistical report include:

- Average ICU Days, aggregated by Hospital Arrival Month
 - Average ICU Days is the statistic
 - Hospital Arrival Month is the category
 - Average ICU Days displays for every Hospital Arrival Month
- Count of Records, aggregated by Age Range
 - Count of Records is the statistic
 - Age Range is the category
 - A count of records displays for all age ranges

Example 1 - Using Quick Setup Category Feature

The **[Quick Setup]** option allows users to define categories quickly from a pre-defined, saved Coded Variable or as increments of a numeric or date range.

Quick Setup - Example A

The example below demonstrates how to use an Age Range Coded Variable as a category in a statistical report.

1. Select the **[Quick Setup]** option from the Categories tab in the Statistics Report Editor window.

Quick Setup

2. The "Category Quick Setup" screen opens. Select the **[Data Element]** option.

Category Quick Setup

Data Element: ☐ Coded Variable

Range: - Increment:

Label:

☐ Month ☐ Day

☒ OK ☐ Cancel

3. Select the "Coded Variables" screen. Select the "Age Range by Decade" Coded Variable. Then select the **[Select]** button.

Data Elements

Data Elements Coded Variables Custom Elements

Name	Description
AGE_CAT	Age Category
AGE_DECADE	Age Decade
AGE_MTD	Age MTD

Select

4. The selected Coded Variable is copied to the "Category Quick Setup" screen and the **[Coded Variable]** option is automatically selected. Select **[OK]** on the "Category Quick Setup" screen.

Category Quick Setup

Data Element: AGE_DECADE ☒ Coded Variable

Range: - Increment:

Label:

☐ Month ☐ Day

☒ OK ☐ Cancel

5. The age ranges are automatically added to the statistical report as categories.

AGE_RANGES - Statistics Editor

Name: ☐ Tabular Output

Description: ☐ CSV Output ☐ Launch Excel

Statistics Categories **General**

Label	Column 1	Operator	Column 2
0 - 9	AGE_DECADE	=	1
10 - 19	AGE_DECADE	=	2
20 - 29	AGE_DECADE	=	3
30 - 39	AGE_DECADE	=	4
40 - 49	AGE_DECADE	=	5
50 - 59	AGE_DECADE	=	6
60 - 69	AGE_DECADE	=	7
70 - 79	AGE_DECADE	=	8
80 - 89	AGE_DECADE	=	9
>= 90	AGE_DECADE	=	10
N/V	AGE_DECADE	=	11

Add Edit Delete

Move Up Move Down Quick Setup

Quick Setup - Example B

Another example of using the **[Quick Setup]** option with a Coded Variable.

1. Create a Statistics Report. This statistics report calculates average hospital days and average ICU days.

AVGLOS - Statistics Editor

Name: ☐ Tabular Output

Description: ☐ CSV Output ☐ Launch Excel

Statistics Categories **General**

2. Use the **[Quick Setup]** option to select the Coded Variable "INJ_AGE". This Coded Variable groups data by Injury Type and Age Group.

Category Quick Setup

Data Element: ☒ Coded Variable

Range: - Increment:

Label:

☐ Month ☐ Day

Notice the 'Coded Variable' checkbox is selected. In this scenario, leave all other fields blank on this window.

Select the **[OK]** button.

- Categories from the "INJ_AGE" Coded Variable are added to the statistical report.

AVGLOS - Statistics Editor

Name: ☐ Tabular Output

Description: ☐ CSV Output ☐ Launch Excel

Statistics **Categories** **General**

Label	Column 1	Operator	Column 2
Blunt 15-54	INJ_AGE	=	1
Penetrating 15-54	INJ_AGE	=	2
Blunt 55+	INJ_AGE	=	3
Penetrating 55+	INJ_AGE	=	4
Blunt - Pediatric	INJ_AGE	=	5
Penetrating - Pediatric	INJ_AGE	=	6

Report output is displayed below. Average hospital days and average ICU days display for each Injury Type/Age Group categorization.

Statistics Report

Report generated on 09/24/2010
 Range From 01/01/2009 to 05/31/2099
 Query is EVERYONE
 Number of Records 6827

	Blunt, 15 - 54	Pent, 15 - 54	Blunt, 55+	Pent, 15 - 55	Blunt, Ped	Pent, Ped
Avg Hospital Days	3.505	-	5.121	3.855	2.120	2.455
Avg ICU Days	0.939	-	1.128	1.140	0.464	0.045

Quick Setup – Example C

In the example below, "Patient Arrival Month" is added as a category to a statistical report.

- Select the **[Quick Setup]** option.

2. The “Category Quick Setup” screen opens. Select the **[Data Element]** option.

The screenshot shows the 'Category Quick Setup' dialog box. The 'Data Element' tab is selected and highlighted with a red circle. The 'Coded Variable' checkbox is unchecked.

3. Select the “PAT_A_DATE_M, Patient Arrival Date (Month)” data element.

The screenshot shows the 'Data Elements' list. The 'PAT_A_DATE_M, Patient Arrival Date (Month)' data element is selected and highlighted with a red circle.

4. The selected data element is copied to the “Category Quick Setup” screen.

The screenshot shows the 'Category Quick Setup' dialog box. The 'Data Element' field now contains 'PAT_A_DATE_M'. The 'Range' is set to 1 to 6 with an increment of 2. The 'Month' checkbox is checked.

Enter the following information and then select **[OK]**.

1. “Range”
 - Enter a range for the selected **[Data Element]**. When a month field is selected for the category, the range controls the number of months that will display on the report output.
 - In the example above, the range of “1 – 6” indicates that “January – June” will display on the report output.
2. “Increment”
 - Enter an increment for the selected **[Data Element]**. The increment defines how the category is divided (or incremented) on the report output.
 - In the example above, the increment of 2 indicates that every other month will display on the report (January, March, and May).
3. “Label”
 - Enter a Label for the category.
 - If the Category is a month or day range, then the month (January – December) or day of week (Sunday - Saturday) is automatically used as the Label.
4. “Month”
 - Select this if the data element is a “Month” data element.
5. “Day”
 - Select this if the data element is a “Day” data element.

- The categories are automatically copied to the “Categories” screen.

Name: ☐ Tabular Output

Description: ☐ CSV Output ☐ Launch Excel

Statistics Categories General

Label	Column 1	Operator	Column 2
Jan	PAT_A_DATE_M	BETWEEN	1, 2
Mar	PAT_A_DATE_M	BETWEEN	3, 4
May	PAT_A_DATE_M	BETWEEN	5, 6

+ Add
Edit
Delete
Move Up

- To edit a Category label, select the row and select the **[Edit]** option. Change the label text and select the **[OK]** option. In the example below, the *May* label is changed to *May-June*.

User Report Category Editor

Record Edit Browse

Column 1: Operator: Column 2:

Label:

Statistic: Data Element:

Width: Format:

☒ OK ☐ Cancel

+ - < >

Statistics Categories General

Label	Column 1	Operator	Column 2
Jan	PAT_A_DATE_M	BETWEEN	1, 2
Mar	PAT_A_DATE_M	BETWEEN	3, 4
May-June	PAT_A_DATE_M	BETWEEN	5, 6

+ Add
Edit
Delete
Move Up

Quick Setup – Example D

Another example of using the **[Quick Setup]** option with “ED Arrival Month (EDA_DATE_M)” as the category.

1. A Statistics Report is created. This statistic report displays average hospital days and average ICU days.

AVGLOS - Statistics Editor

Name: ☐ Tabular Output

Description: ☐ CSV Output ☐ Launch Excel

Statistics **Categories** General

2. Categories are created from the ED Arrival Month data element.

Category Quick Setup

Data Element ☐ Coded Variable

Range - Increment

Label

☒ Month ☐ Day

☒ OK ☐ Cancel

AVGLOS - Statistics Editor

Name: ☐ Tabular Output

Description: ☐ CSV Output ☐ Launch Excel

Statistics **Categories** General

Label	Column 1	Operator	Column 2
Jan-Feb	EDA_DATE_M	BETWEEN	1, 2
Mar-Apr	EDA_DATE_M	BETWEEN	3, 4
May-June	EDA_DATE_M	BETWEEN	5, 6

The report output is displayed below. Average hospital days and average ICU days display for each month classification.

Statistics Report

Report generated on 09/24/2010
Range From 01/01/2009 to 06/30/2009
Query is EVERYONE
Number of Records 2152

	Jan-Feb	Mar-Apr	May-June
Avg Hospital Days	3.841	3.674	3.653
Avg ICU Days	0.882	0.907	0.867

Example 2 - Using Queries and Statistics for Categories

This section describes how to use queries and statistics to create categories.

Queries as Categories – Example A

This example explains how to create categories from pre-defined queries and newly defined queries.

1. Select the **[Add]** option on the “Category” screen.



2. The “User Report Category Editor” screen opens.

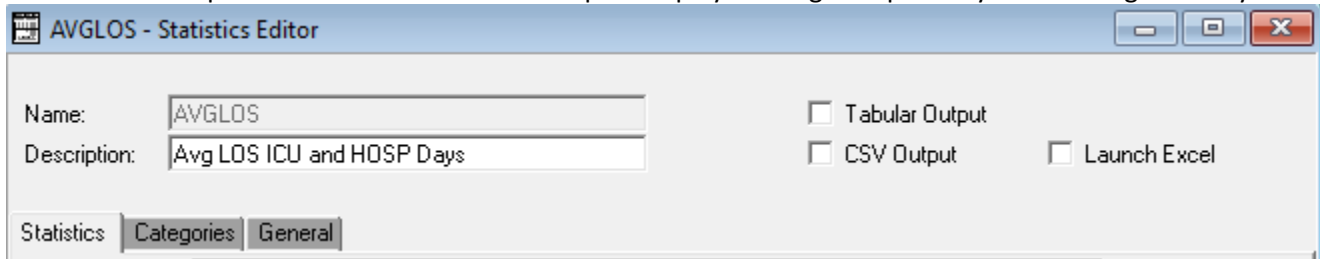
3. To define a Category using a new Query (not previously saved), enter the following:
 - <Column 1>, “Operator”, <Column 2>
 - Refer to the ‘Query’ section of the user guide for detailed instructions on creating queries.

4. To define a Category using a previously saved Query, enter the Query Name in “Column 1”. The “Operator” and <Column 2> remain blank.

Queries as Categories – Example B

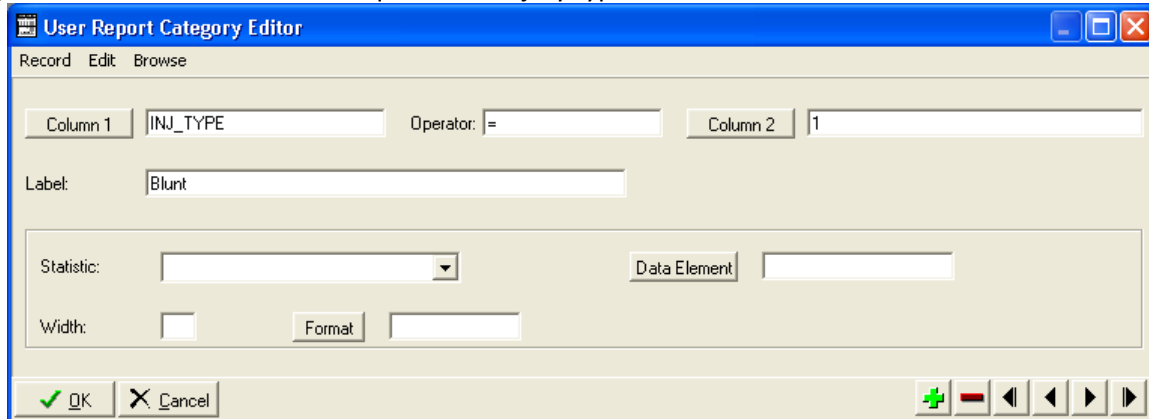
Another example of using queries to create categories:

1. A Statistics Report is created. This statistics report displays average hospital days and average ICU days.

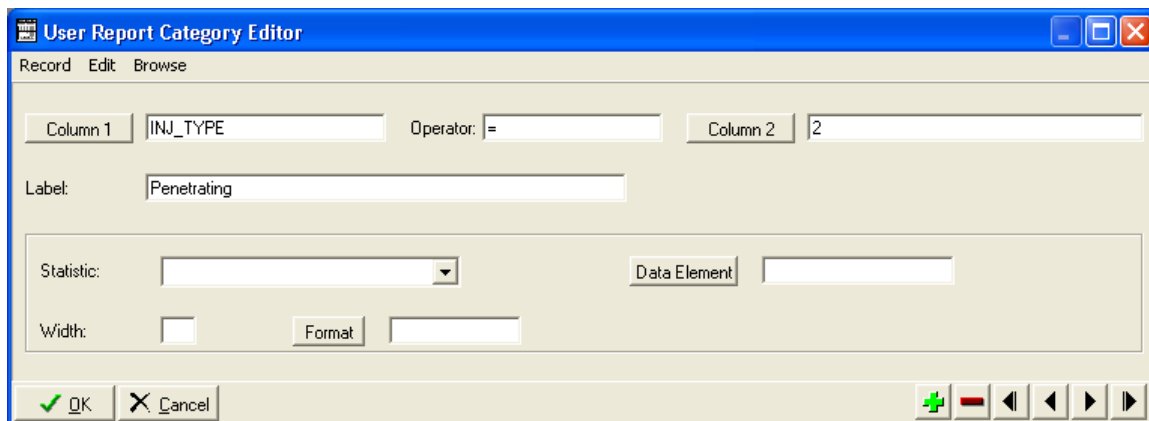


The screenshot shows the 'AVGLOS - Statistics Editor' window. It has a title bar with standard window controls. The main area contains two text input fields: 'Name:' with the value 'AVGLOS' and 'Description:' with the value 'Avg LOS ICU and HOSP Days'. To the right of these fields are three checkboxes: 'Tabular Output' (unchecked), 'CSV Output' (unchecked), and 'Launch Excel' (unchecked). At the bottom, there are three tabs: 'Statistics' (selected), 'Categories', and 'General'.

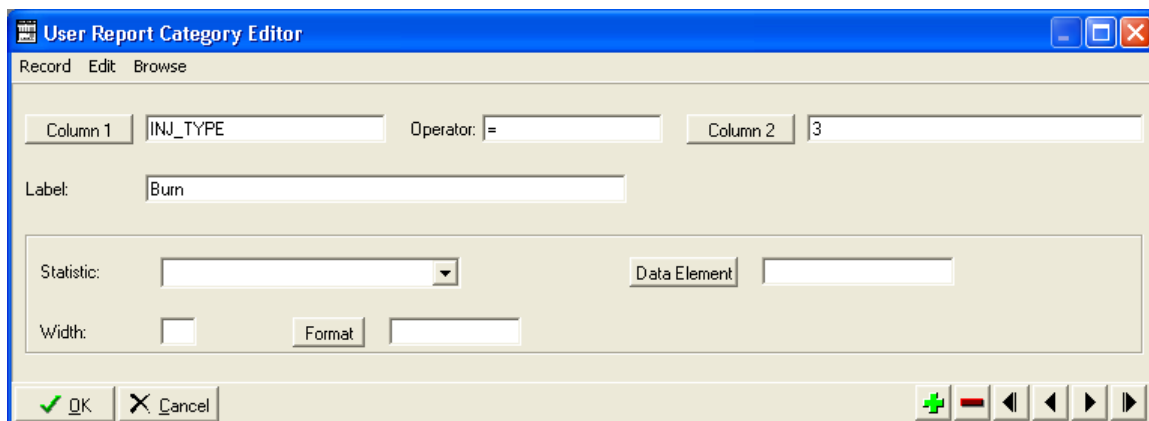
2. Categories are created from several queries on injury type.



The screenshot shows the 'User Report Category Editor' window. It has a title bar with standard window controls and a menu bar with 'Record', 'Edit', and 'Browse'. The main area contains two text input fields: 'Column 1' with the value 'INJ_TYPE' and 'Column 2' with the value '1'. Between them is an 'Operator:' field with the value '='. Below these is a 'Label:' field with the value 'Blunt'. Further down, there is a 'Statistic:' dropdown menu and a 'Data Element' text input field. At the bottom, there is a 'Width:' field, a 'Format' button, and another text input field. The bottom of the window features a toolbar with 'OK' and 'Cancel' buttons, and a set of navigation icons (add, delete, back, forward).



The screenshot shows the 'User Report Category Editor' window. It has a title bar with standard window controls and a menu bar with 'Record', 'Edit', and 'Browse'. The main area contains two text input fields: 'Column 1' with the value 'INJ_TYPE' and 'Column 2' with the value '2'. Between them is an 'Operator:' field with the value '='. Below these is a 'Label:' field with the value 'Penetrating'. Further down, there is a 'Statistic:' dropdown menu and a 'Data Element' text input field. At the bottom, there is a 'Width:' field, a 'Format' button, and another text input field. The bottom of the window features a toolbar with 'OK' and 'Cancel' buttons, and a set of navigation icons (add, delete, back, forward).



The screenshot shows the 'User Report Category Editor' window. It has a title bar with standard window controls and a menu bar with 'Record', 'Edit', and 'Browse'. The main area contains two text input fields: 'Column 1' with the value 'INJ_TYPE' and 'Column 2' with the value '3'. Between them is an 'Operator:' field with the value '='. Below these is a 'Label:' field with the value 'Burn'. Further down, there is a 'Statistic:' dropdown menu and a 'Data Element' text input field. At the bottom, there is a 'Width:' field, a 'Format' button, and another text input field. The bottom of the window features a toolbar with 'OK' and 'Cancel' buttons, and a set of navigation icons (add, delete, back, forward).

Name: ☐ Tabular Output
Description: ☐ CSV Output ☐ Launch Excel

Statistics Categories General

Label	Column 1	Operator	Column 2
Blunt	INJ_TYPE	=	1
Penetrating	INJ_TYPE	=	2
Burn	INJ_TYPE	=	3

- The report output is displayed below. Average hospital days and average ICU days are displayed for each injury type classification.

Statistics Report

Report generated on 09/24/2010
Range From 01/01/2009 to 03/31/2009
Query is EVERYONE
Number of Records 937

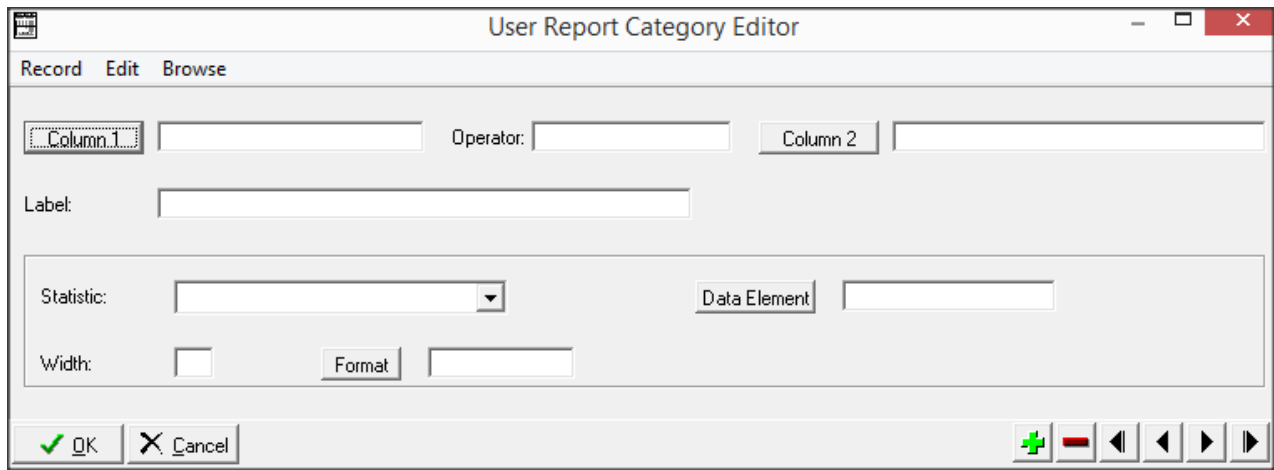
	Blunt	Penetrating	Burn
=====			
Avg Hospital Days	3.879	2.288	-
Avg ICU Days	0.962	0.186	-

Statistics as Categories – Example C

To define a category using a statistic, follow the steps below.

- Select the **[Add]** option on the “Category” screen.

- The “User Report Category Editor” screen opens.



User Report Category Editor

Record Edit Browse

Column 1 Operator Column 2

Label:

Statistic: Data Element

Width: Format

OK Cancel

3. Enter a "Label".
4. Select a **[Statistic]** and a **[Data Element]**. Enter a "Width". Select a **[Format]**.

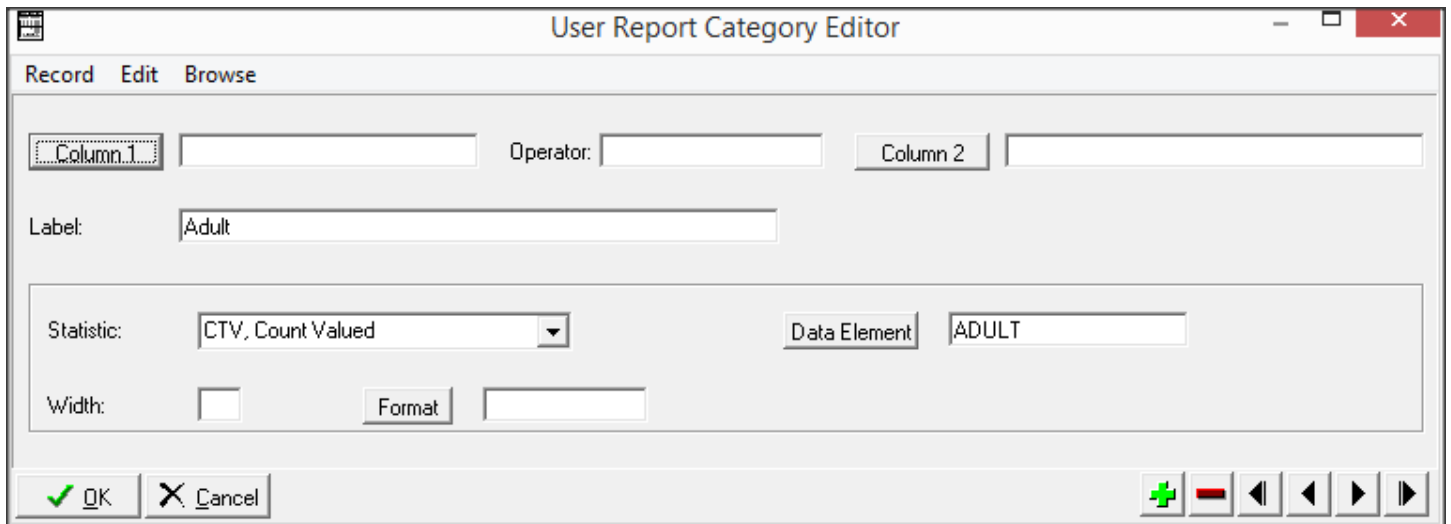


Statistic: Data Element

Width: Format

Below is an example of a statistical report using categories defined from a statistic.

Count Valued, Adult Statistic



User Report Category Editor

Record Edit Browse

Column 1 Operator Column 2

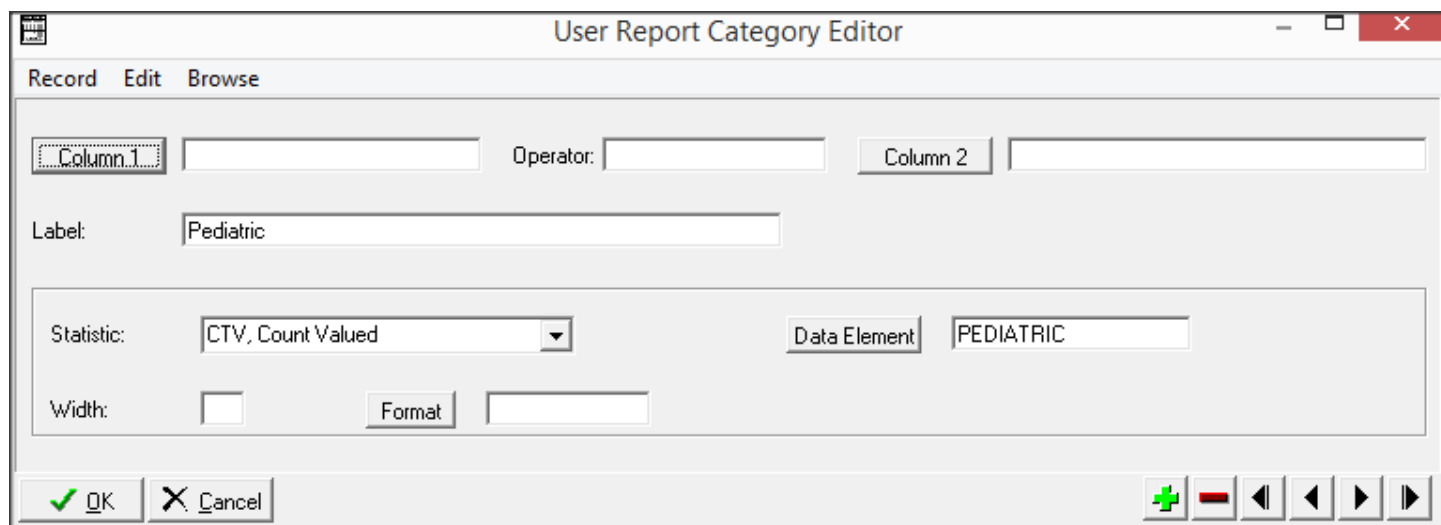
Label: Adult

Statistic: CTV, Count Valued Data Element: ADULT

Width: Format

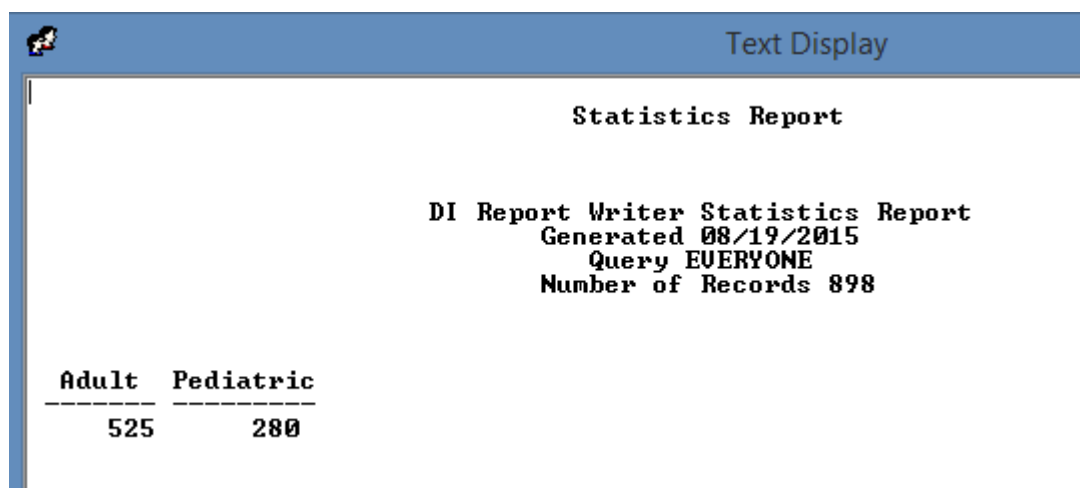
OK Cancel

Count Valued, Pediatric Statistic



The "User Report Category Editor" dialog box is shown. It has a title bar with a close button. Below the title bar are three tabs: "Record", "Edit", and "Browse". The "Record" tab is active. It contains several input fields: "Column 1" (with a dropdown arrow), "Operator" (with a dropdown arrow), "Column 2" (with a dropdown arrow), "Label" (containing "Pediatric"), "Statistic" (containing "CTV, Count Valued" with a dropdown arrow), "Data Element" (containing "PEDIATRIC"), "Width" (with a text input field), and "Format" (with a text input field). At the bottom are "OK" and "Cancel" buttons, and a set of navigation buttons (plus, minus, left, right, and a double right arrow).

Final Report Output



The "Text Display" window shows the following report output:

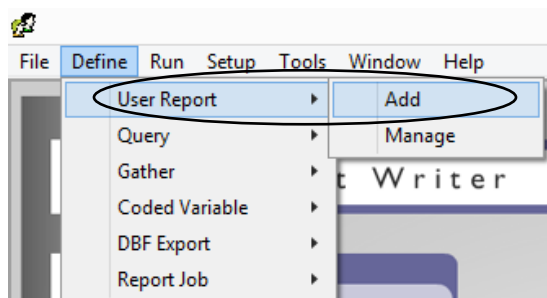
Statistics Report	
DI Report Writer Statistics Report	
Generated 08/19/2015	
Query EVERYONE	
Number of Records 898	
Adult	Pediatric
525	280

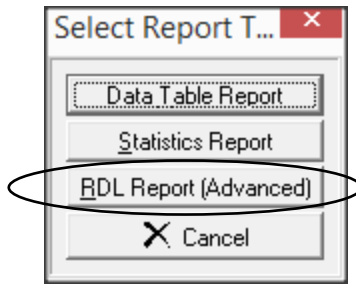
RDL Reports

A RDL (Report Definition Language) report is an advanced report using programming language. For assistance with a RDL report, contact DI Technical Support.

Adding a RDL Report

From the "Define" option on the menu bar, select "User Report" and then select "Add". Select **[RDL Report (Advanced)]** on the "Select Report Type" screen.



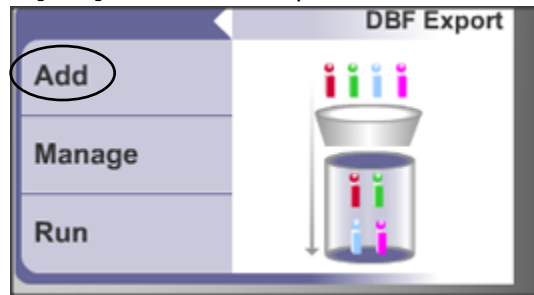


DBF Export

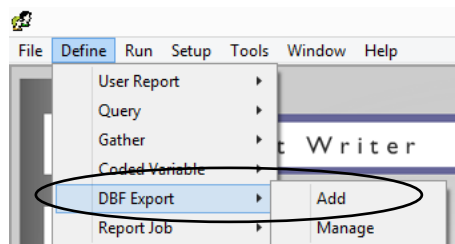
The DBF Export creates a database file (.dbf) to use in other database management systems. It is a single relational table, allowing the user to self-define and translate data into a database model.

Adding a DBF Export

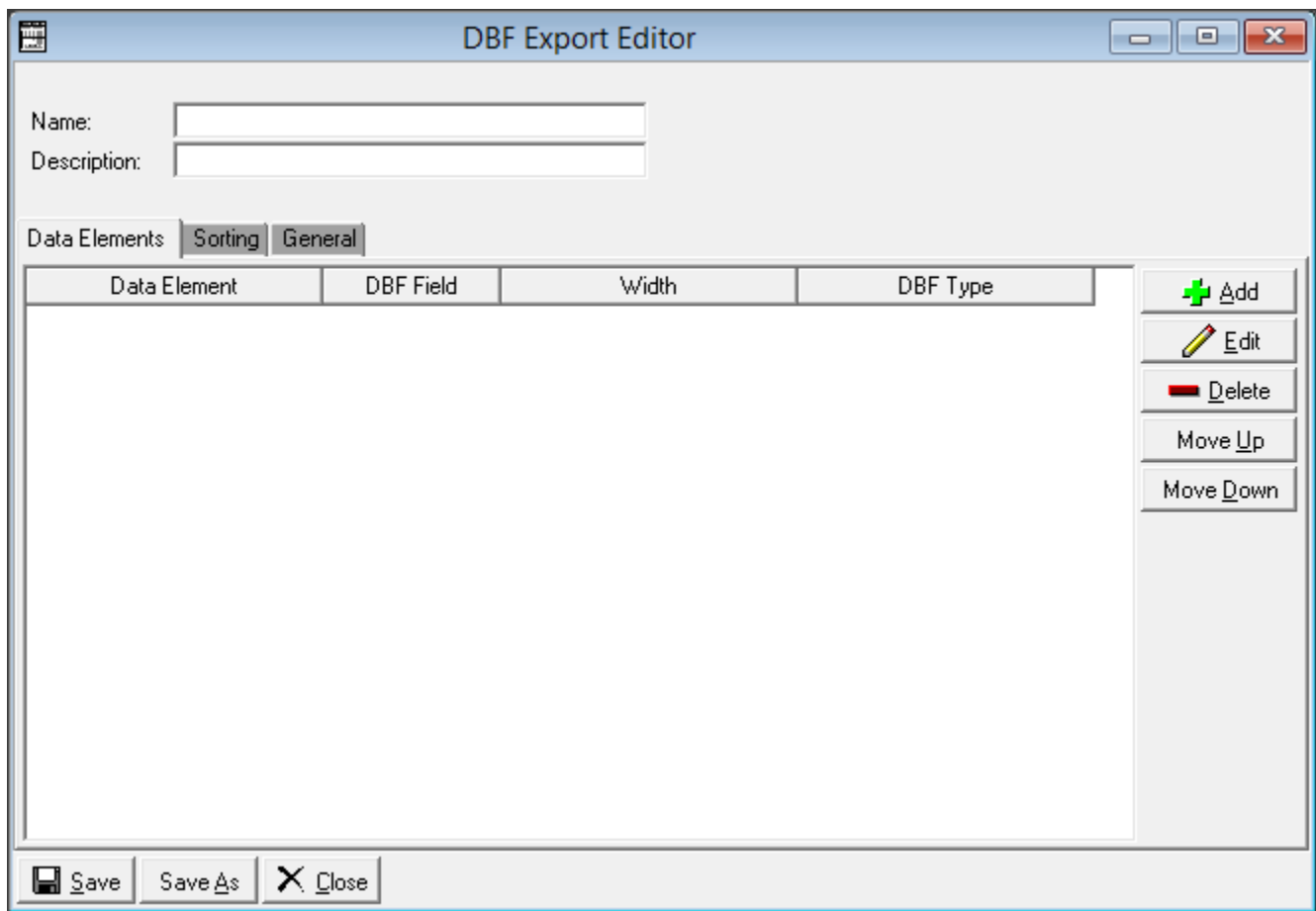
1. From the “Welcome” screen, select **[Add]** to add a DBF Export.



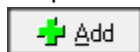
Alternatively, from the “Define” option on the menu bar, select “DBF Export” and then select “Add”.



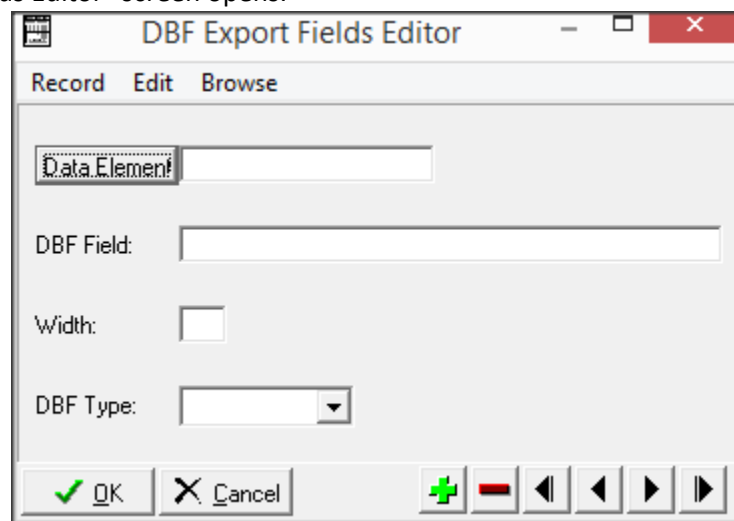
2. The “DBF Export Editor” screen opens.



3. Enter a “Name” for the DBF Export. The “Name” is used to uniquely identify the DBF Export. The “Name” field allows up to 20 alphanumeric characters and underscores. This field does not accept spaces. It must also start with an Alpha. No special characters (other than underscores) are allowed.
4. Enter a “Description” for the DBF Export. The “Description” field provides additional information to help identify the DBF Export. This field allows up to 27 characters (including spaces).
5. Select the **[Add]** option to add fields to the DBF Export.

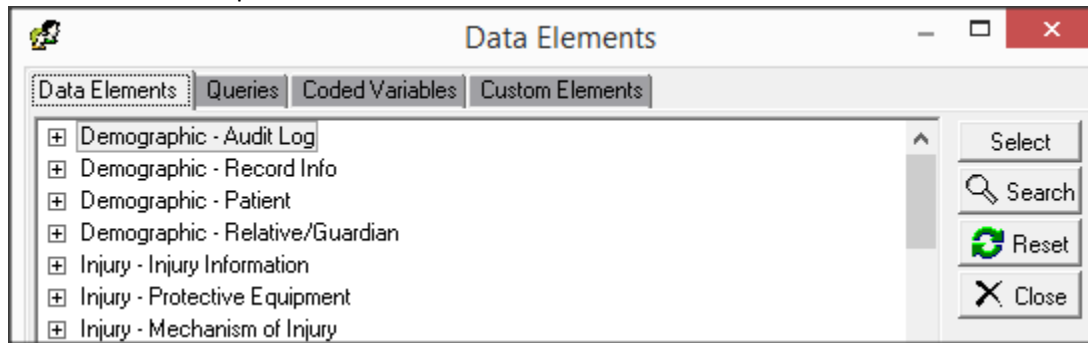


6. The “DBF Export Fields Editor” screen opens.

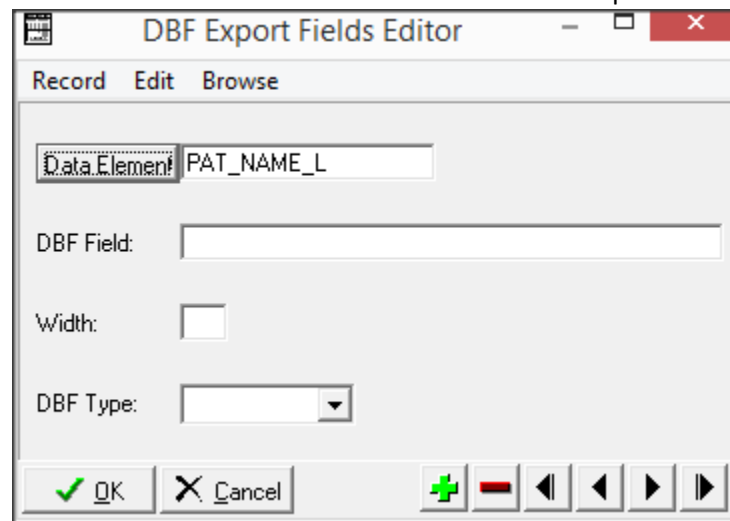


7. Select the **[Data Element]** option.

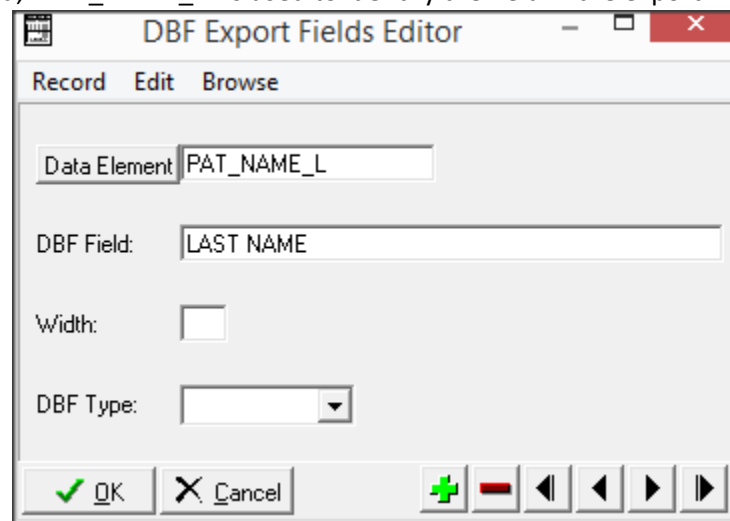
8. The “Data Elements” screen opens.



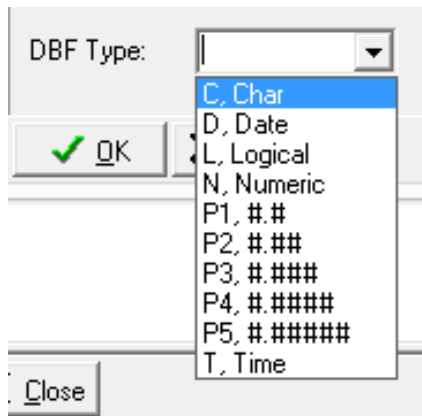
9. Using the steps provided in the ‘Using the “Data Elements” Screens’ section of the User Guide, locate fields to add to this report. Double click to select the fields and return to the “DBF Export Fields Editor” screen.



10. Enter a “DBF Field”. This is a label used to identify the field in the DBF Export. If the “DBF Field” is not entered, then the DBF Export displays the field name. Example: In the screen below, PAT_NAME_L is the field name. If a “DBF Field” is not entered, “PAT_NAME_L” is used to identify the field in the export.



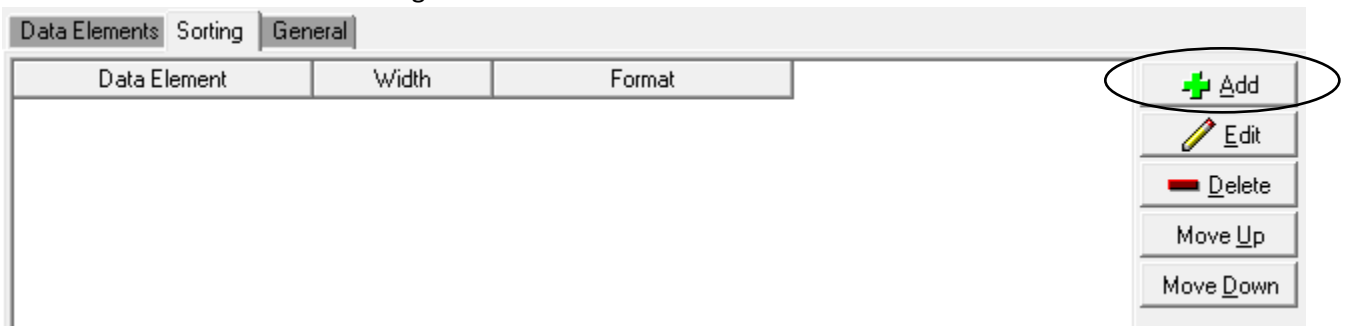
11. Enter a “Width” for the field. The “Width” controls the width of this column on the report output. **Note: Report Writer already defaults the Width to the character limit of the field. This option allows a user to change the width from the default.**
12. Select a [DBF Type].



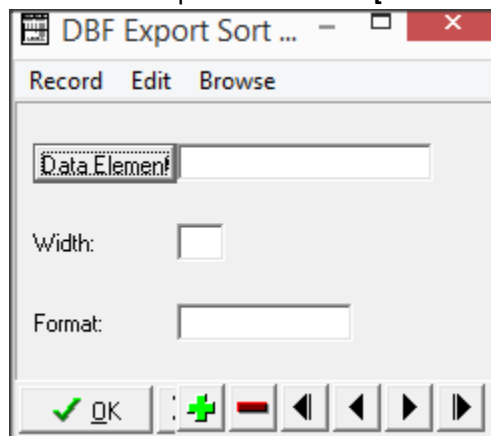
- Select “C, Char” for a text field.
- Select “D, Date” for a date field.
- Select “L, Logical” for a logical (true/false) field.
- Select “N, Numeric” for a numeric field.
- Select “P1, #.#” to set precision equal to 1.
- Select “P2, ###” to set precision equal to 2.
- Select “P3, ####” to set precision equal to 3.
- Select “P4, #####” to set precision equal to 4.
- Select “P5, #####” to set precision equal to 5.
- Select “T,Time” for a time field.

Sort Order

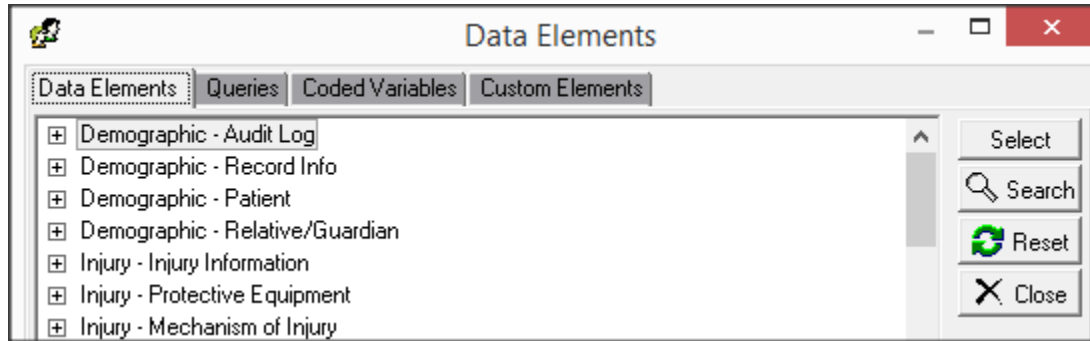
13. Select the “Sort Order” screen. The “Sort Order” screen is used to sort the data in the DBF Export. **Tip: The default sort order for Report Writer output is ascending by Trauma Number.** Select the [Add] option to select a different field to use for sorting.



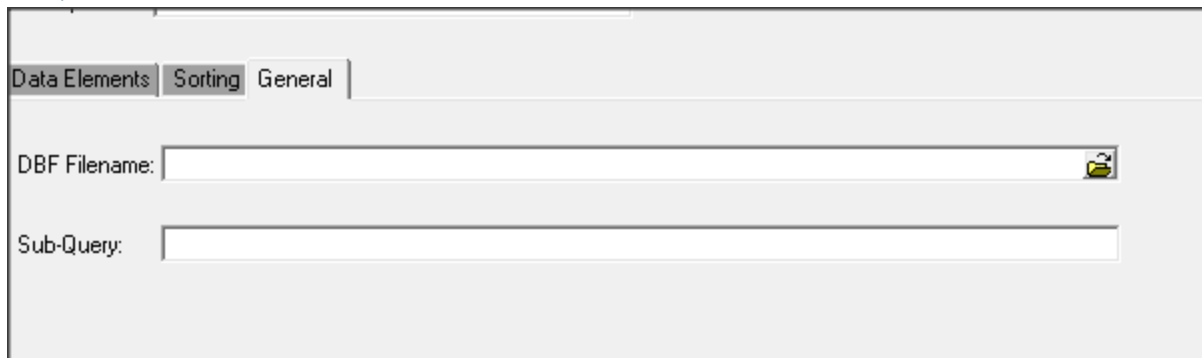
- The “DBF Export Sort Editor” screen opens. Select the [Data Element] option.



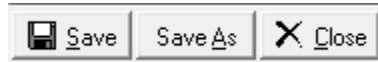
- The “Data Elements” screen opens. Locate the data element to be used for sorting data. Double click the data element to select it and return to the “Sort Order” screen.



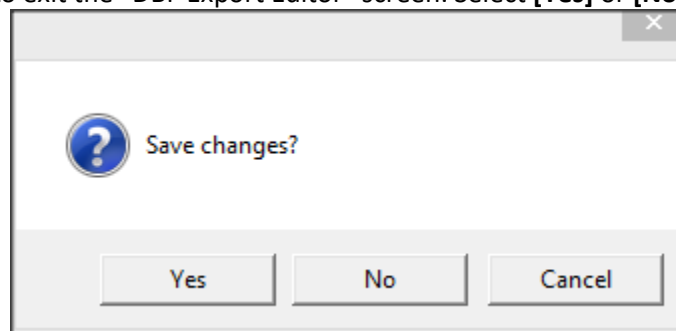
DBF Export Options on the “General” Screen



14. Enter a default “DBF Filename”. When the DBF Export is executed, it is saved with this default filename.
15. Enter a default “Sub-Query”.
16. After completing all of the above steps, select from one of the following options:



- Select **[Save]** to save the DBF Export.
- Select **[Save As]** to save the DBF Export with a different DBF Export name.
- Select **[Close]** to exit the “DBF Export Editor” screen. Select **[Yes]** or **[No]** to save changes.



Running a DBF Export

To run a DBF Export, follow the steps below:

1. From the “Welcome” screen, select **[Run]**.



2. The “DBF Export” screen opens. Select a [DBF Export]. Select a [Query] if applicable.

3. Select the [Export] option. Enter options on the “Run Report” screen. Select the [OK] option to run the export.

Using Across to Report on Repeating Data

Across provides the user with the ability to report *across* repeating data.

By default, Report Writer reports *across* the patient population (*across* the trauma records). Report Writer outputs one record for each trauma record in the trauma registry. If there are 50 trauma records and a basic count statistical report is performed in the Report Writer, then the Report Writer output counts 50 records.

Across allows users to report *across* repeating data elements. A repeating data element is a data element that is repeated in a list. Examples:

- Data elements associated with a procedure (procedure code, start date/time, end date/time, etc.) are considered repeating data elements. The data elements are repeated in a list format.

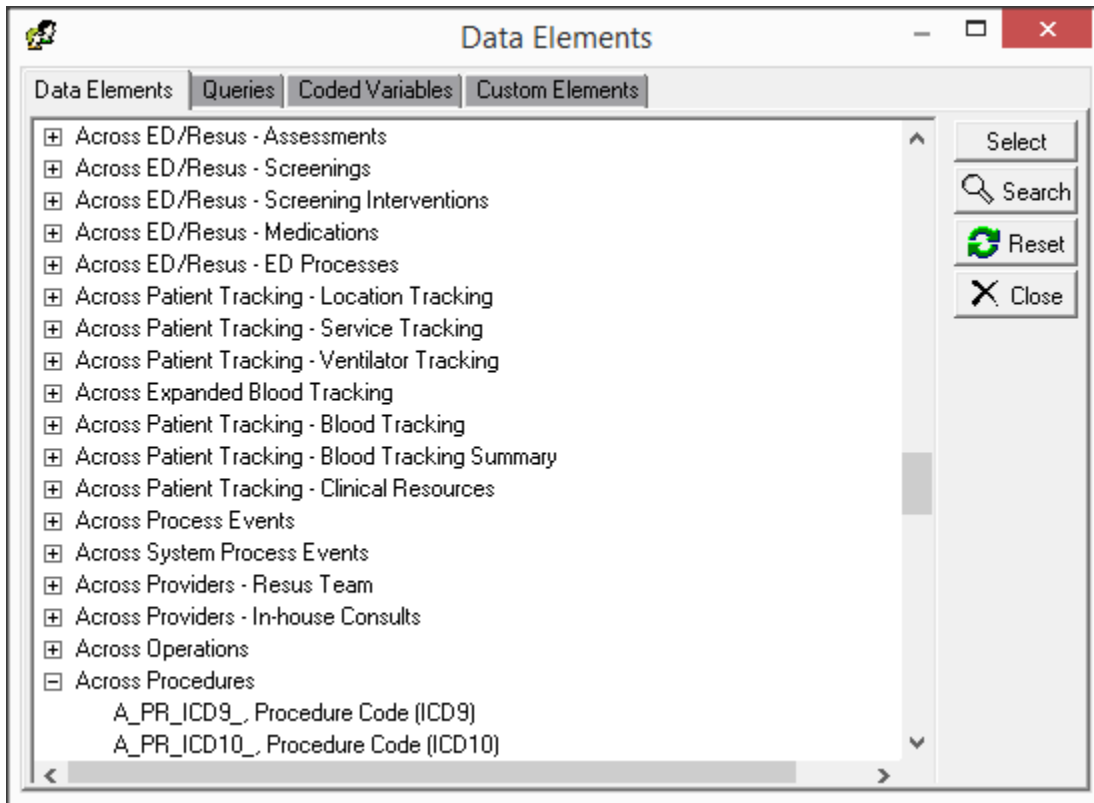
- Data elements associated with a diagnosis (diagnosis code, AIS, etc.) are considered repeating data elements.

A report *across* procedures will output one record for each procedure record in the trauma registry. A blank row is inserted if no procedures exist in the trauma record. If there are 50 trauma records entered in the trauma registry and each trauma record has 10 procedures and a basic count statistical report is performed *across* procedures, then the Report Writer output counts 500 records.

Across is available for reports, queries, and gathers.

How to Use Across in a Report

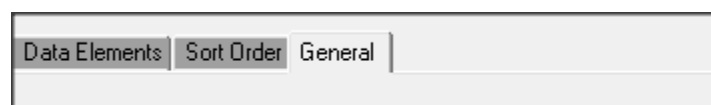
1. To use Across in a report, the user selects from the Across subset of data elements. The Across data elements are located at the end of the Report Writer “Data Elements” screen. See below. Each Across subset begins with the word ‘Across’.

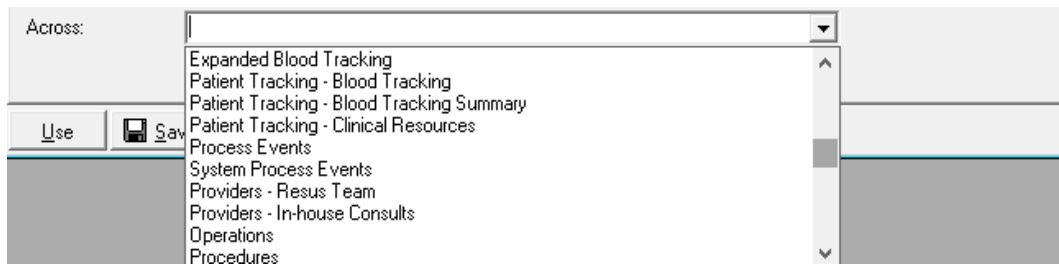


Data Elements				Sort Order	General
Data Element	Label	Width	Format		
A_PR_ICD10_	ICD10 Procedure Code				
A_PR_STR_DATE	Procedure Start Date				
A_PR_STR_TIME	Procedure Start Time				

+ Add
✎ Edit
✖ Delete
↕ Move Up/Down

2. After selecting the data elements, select the “General” screen. Select the appropriate **[Across]** from the list. Example: If reporting across procedures, select “Procedures”.





Below is an example of a Data Table Report *across* procedures. Notice how each procedure outputs as a separate row in the Data Table Report.

DI Report Writer Data Table Report
Generated 11/02/2017 14:46
Arrival Dates 01/01/2017 - 01/02/2017
Query EVERYONE
Across Procedures
Number of Records 1255

Trauma Number	ICD10	Procedure Code	Procedure Start Date	Procedure Start Time
20133592	OP9G34Z		01/01/17	15:35
20133590	05H630Z		01/03/17	12:28
20133590	B421YZZ		01/01/17	08:09
20133590	00TH0ZZ		01/03/17	11:00
20133590	00TH0ZZ		01/03/17	11:00
20133590	04JG0ZZ		01/03/17	11:00
20133440	049830Z		01/01/17	06:07
20136319	2432X3Z		01/01/17	05:00
20136321	5A12012		01/01/17	14:23
20136337	BR20ZZZ		01/01/17	06:25
20136337	B428ZZZ		01/01/17	06:25
20136337	2432X3Z		01/01/17	06:25

How to Use Across in a Query

1. On the “User Query Editor”, select the **[Column 1]** option and then select from the across subset of data elements. Enter an “Operator” and Query criteria into **[Column 2]**.

The Query below identifies all procedures with a start date of 01/01/2017. If there are 538 procedures with a start date of 01/01/2017, then 538 procedure records are included in the report output, one record for each procedure.

2. After selecting the data elements, select the “General” screen. Select the appropriate **[Across]** from the list. Example: If reporting across procedures, select “Procedures”.

Below is an example of a Data Table Report across procedures, combined with the above Query across procedures. This report displays all procedures performed on 01/01/2017, with each procedure output as a separate row in the Data Table Report. Notice how Trauma Number 20170002 displays three times on the report. There are three procedure records for Trauma Number 20170002 with a procedure start date of 01/01/2017.

20170002	BM28ZZZ	01/01/17	22:12
20170002	BR20ZZZ	01/01/17	22:12
20170002	BM2FZZZ	01/01/17	22:12

How to Use Across in a Gather

1. Select the **[Data Element]** option for each level of the Gather and select a data element from the across subset of data elements.

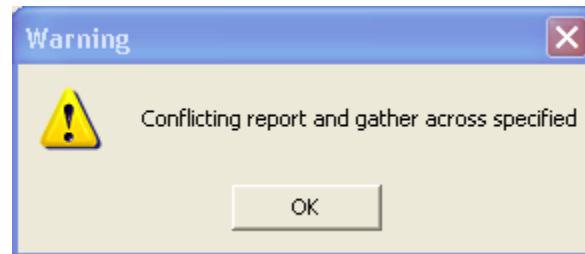
2. After selecting the data elements, select the “General” screen. Select the appropriate **[Across]** from the list. Example: If reporting across procedures, select “Procedures”.

Across:

Use

- Expanded Blood Tracking
- Patient Tracking - Blood Tracking
- Patient Tracking - Blood Tracking Summary
- Patient Tracking - Clinical Resources
- Process Events
- System Process Events
- Providers - Resus Team
- Providers - In-house Consults
- Operations
- Procedures

- The across selected for a user report and the across selected for a Gather must be the same. If the user selects a Gather across that conflicts with a user report across, the warning message below displays.



Below is an example of a Data Table Report across procedures, gathered by across procedure location.

DI Report Writer Data Table Report
 Generated 11/02/2017 14:58
 Arrival Dates 01/01/2017 - 01/02/2017
 Query [Adhoc] (Across Procedures)
 Gather [Adhoc]
 Across Procedures
 Number of Records 9

Procedure Location: Intensive Care Unit

Trauma Number	ICD10 Procedure Code	Procedure Start Date	Procedure Start Time
20172012	4A07XBZ	01/01/17	unk
20172021	BA28ZZZ	01/01/17	05:03
20172021	BR20ZZZ	01/01/17	05:03
20172021	BN25ZZZ	01/01/17	05:03
20136318	049B30Z	01/01/17	16:30
20136317	243MX1Z	01/01/17	19:00
20136322	049930Z	01/01/17	23:00
20170007	3023M1	01/01/17	18:04
201700016	0CQ1XZZ	01/01/17	unk

DI Report Writer Data Table Report
 Generated 11/02/2017 14:58
 Arrival Dates 01/01/2017 - 01/02/2017
 Query [Adhoc] (Across Procedures)
 Gather [Adhoc]
 Across Procedures
 Number of Records 1

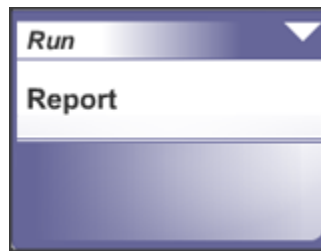
Procedure Location: Floor

Trauma Number	ICD10 Procedure Code	Procedure Start Date	Procedure Start Time
20172003	4A02X4Z	01/01/17	17:49

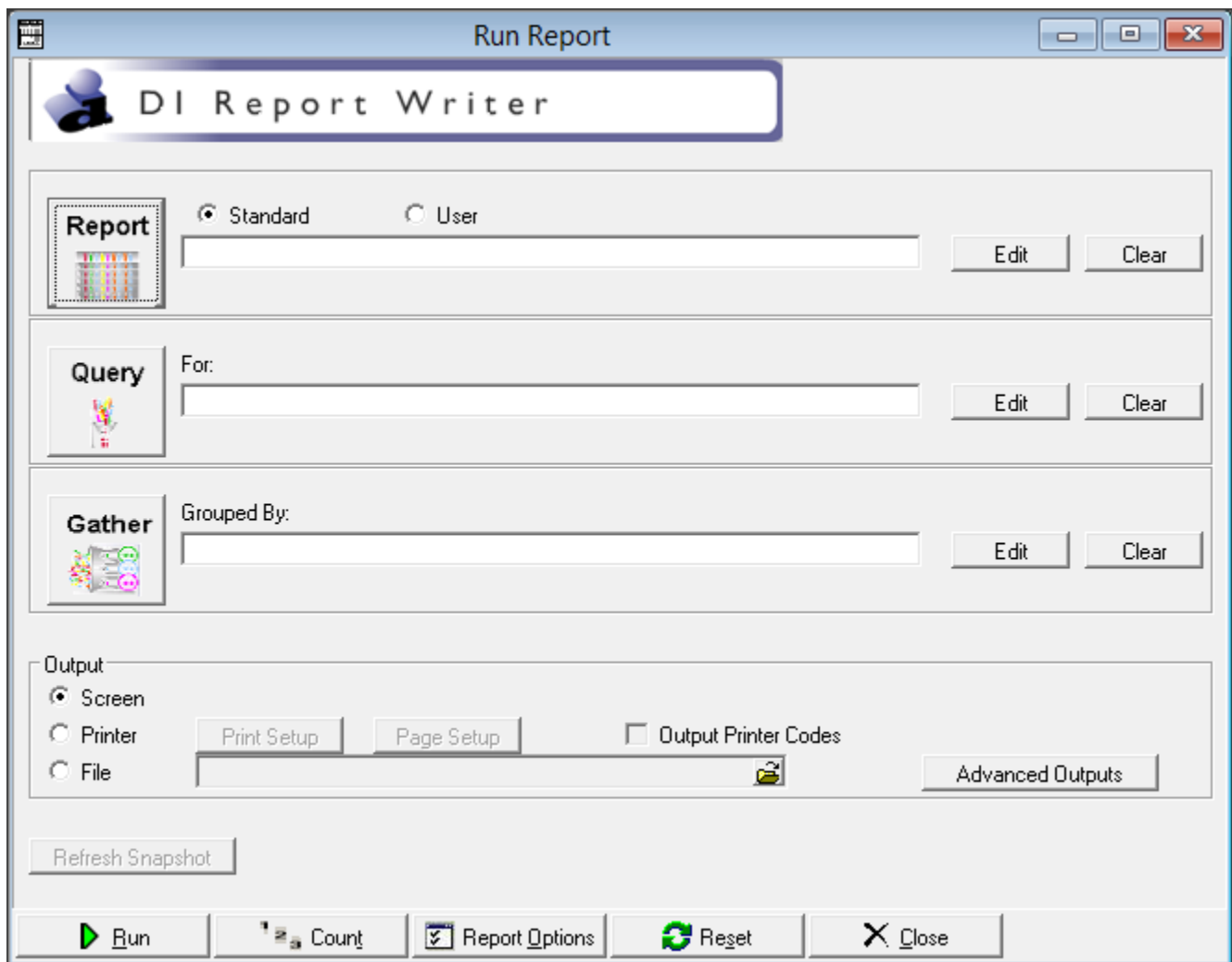
Running Reports

The key to the successful use of the Report Writer is the ability to combine each of the above reporting tools to produce valuable reporting output.

To begin running reports, select the **[Run Report]** option.



The “Run Report” screen opens.



Run Report

Running reports is a simple 3-step process.

- Step 1: Select any combination of report tool(s): Report, Query, Gather
- Step 2: Select the Output.
- Step 3: Select the Report Options.

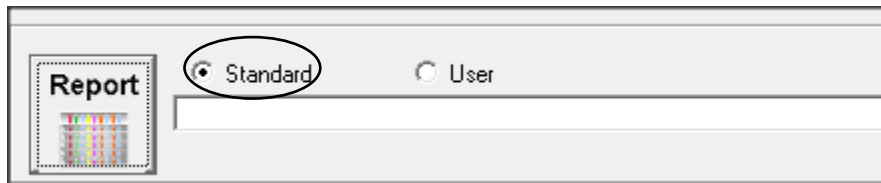
Step 1 – Select Report Tools

Follow the instructions below to select report tools. Select any combination of Report, Query, or Gather.

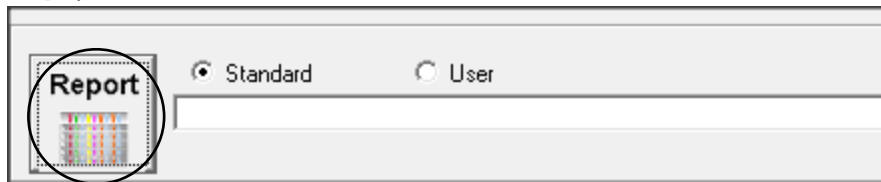
Standard Reports

Standard Reports are programmed reports created by DI and delivered as a part of the Report Writer installation. To select a standard report, follow the steps below.

1. Select the **[Standard Report]** option.



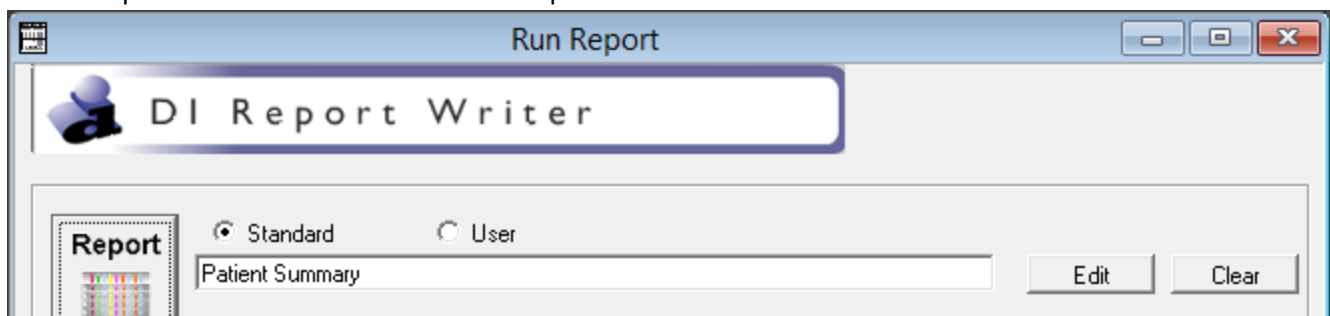
2. Select the **[Report]** option.



3. The “Standard Reports” screen opens. To select a standard report, double click the report name, or select the report name and select the **[Select]** option.



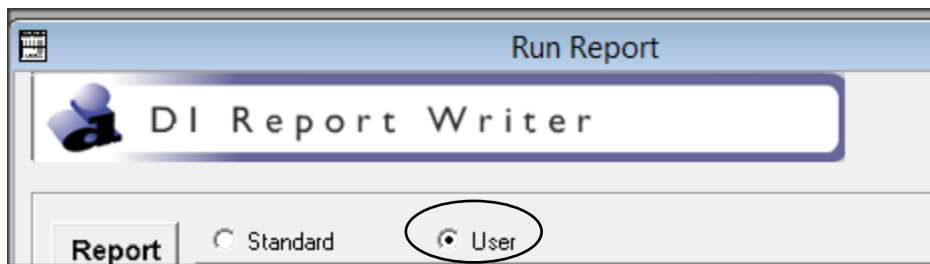
4. The report is now selected on the “Run Report” screen.



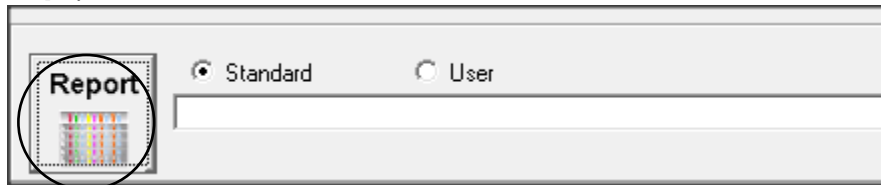
User Reports

User Reports include the data table and statistic reports created by the user. To select a user report, follow the steps below.

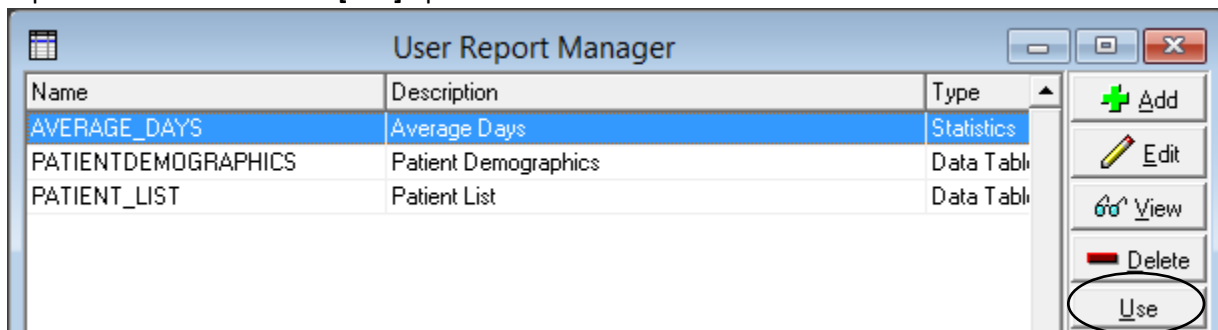
1. Select the **[User]** option.



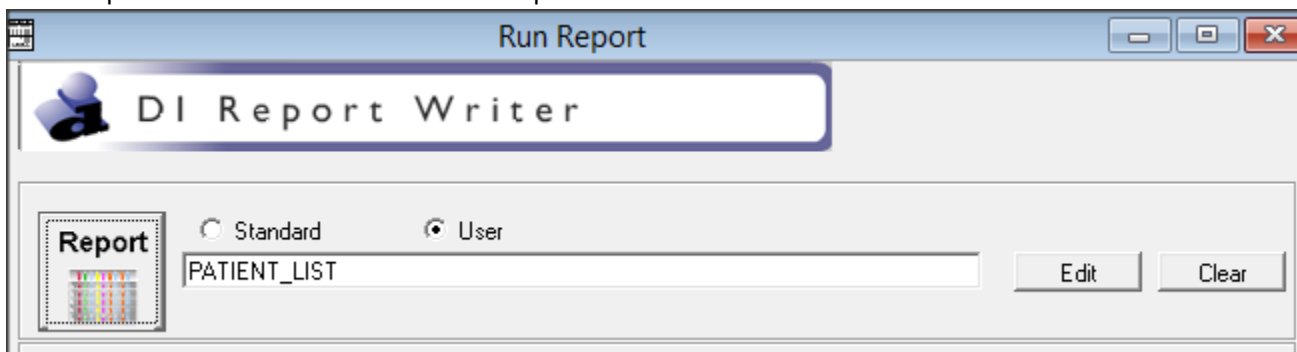
2. Select the **[Report]** option.



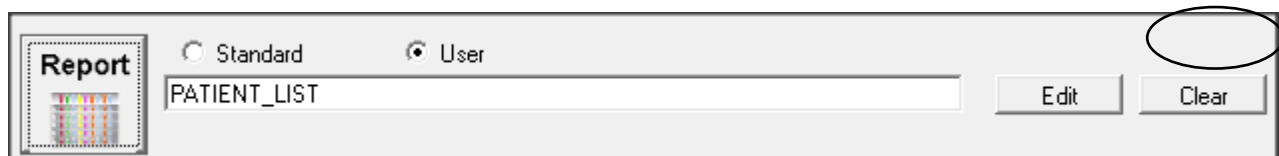
3. The “User Report Manager” screen opens. To select a user report, double click the report name, or select the report name and select the **[Use]** option.



4. The report is now selected on the “Run Report” screen.



To remove a report from the “Run Report” screen, select the **[Clear]** option.



Select the **[Edit]** option to edit an existing user report. The “Select Report Type” screen opens. Select the type of report: **[Data Table Report]** or **[Statistics Report]**.

Query

To select a Query, follow the steps below.

1. Select the **[Query]** option.

2. The “Query Manager” screen opens. To select a Query, double click the Query name, or select the Query name and select the **[Use]** option.

3. The Query is now selected on the “Run Report” screen.

To remove a Query from the “Run Report” screen, select the **[Clear]** option. To edit a Query from the “Run Report” screen, select the **[Edit]** option.

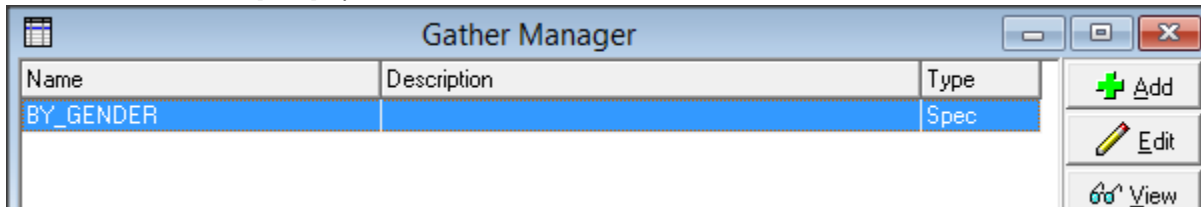
Gather

To select a Gather, follow the steps below.

1. Select the **[Gather]** option.



2. The “Gather Manager” screen opens. To select a Gather, double click the Gather name, or select the Gather name and select the **[Use]** option.



3. The Gather is now selected on the “Run Report” screen.



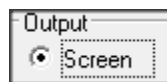
To remove a Gather from the “Run Report” screen, select the **[Clear]** option. To edit a Gather from the “Run Report” screen, select the **[Edit]** option.



Step 2 – Select the Output

Follow the steps below to select the report output.

Select **[Screen]** to view the report on the screen.



Select from the following options when a Standard Report is output to the screen:



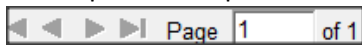
To browse the network or computer.



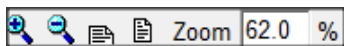
To save the report.



To print the report.



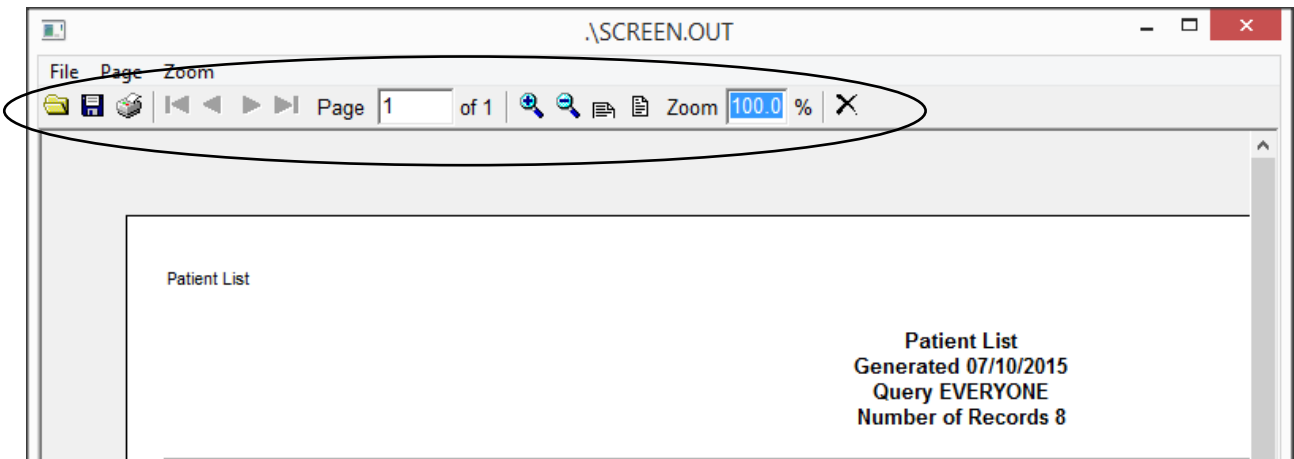
To navigate from page to page in the report.



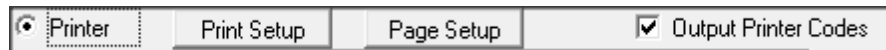
To magnify the report.



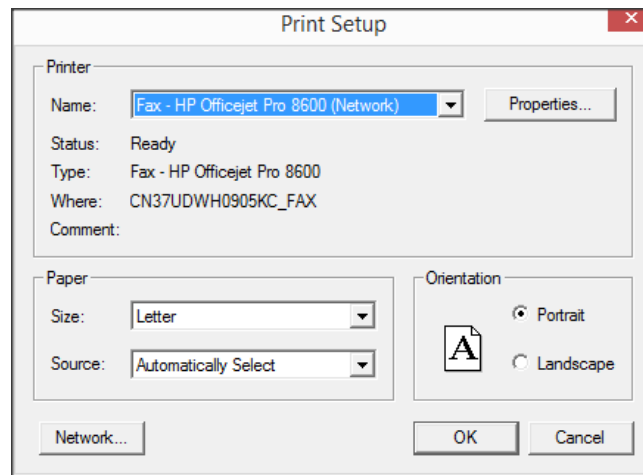
To close the report.



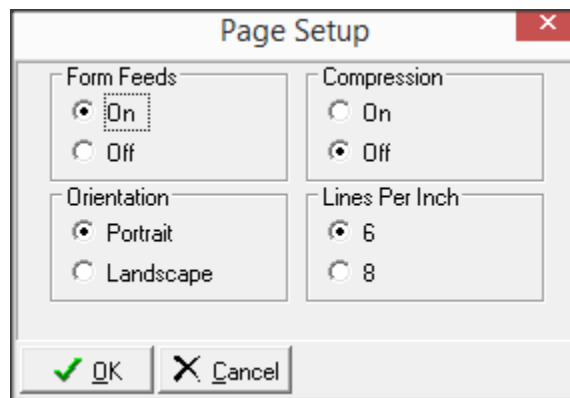
Select **[Printer]** to print the report.



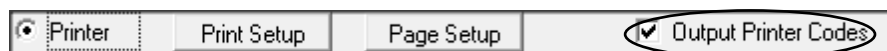
Select the **[Print Setup]** option to access the “Print Setup” screen and change the Printer, Paper Size, Source, and Orientation.



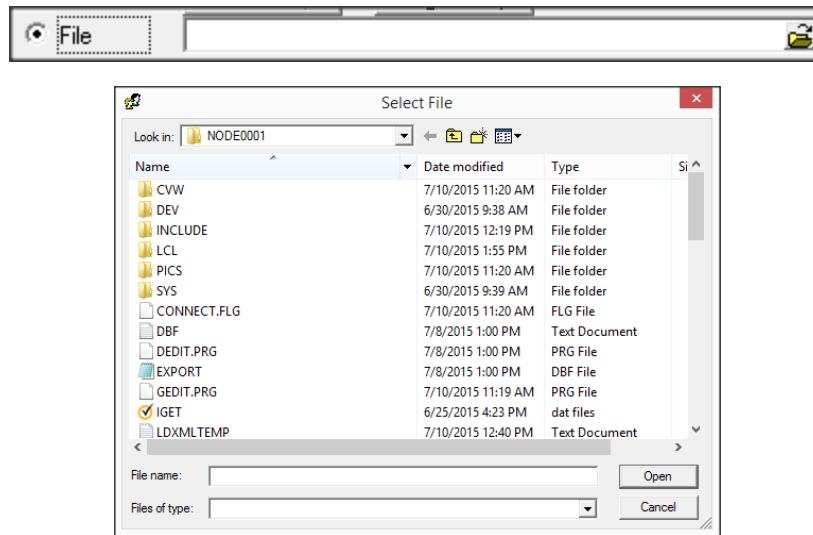
Select the **[Page Setup]** option to access the “Page Setup” screen and change Form Feeds, Compression, Orientation, and Lines per Inch.



[Output Printer Codes] is automatically selected. This option sends printer codes to format the report content.



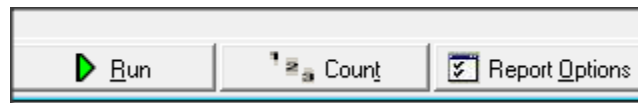
Select **[File]** to save the report to a network or computer location.



Step 3 – Select the Report Options

The final step is to select the report options and run the report.

To set report options and run the report, select **[Run]**. To set report options only, select **[Report Options]**.



The “Run Report” screen opens. Enter any criteria and select the **[OK]** option to run the report.

Select **[Reset]** to clear report options.

Select **[Cancel]** to close the “Run Report” screen.

- Trauma Number
 - Enter a trauma number or a range of trauma numbers.
- Date Search

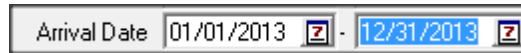
- Enter a beginning date only to search for all records on and after the date. The search below returns all records with an Arrival Date of 1/1/2013 or later.



- Enter an end date only to search for all records on and prior to the date. The search below returns all records with an Arrival Date of 12/31/2013 or prior.



- Enter a range of dates



- Facility
 - The Facility ID field is displayed for users who access a multi-facility trauma registry.
- Record Status
 - The default report output includes all records, Active and Closed.
 - Select **[Active]** to include only Active records.
 - Select **[Closed]** to include only Closed records.
- Patient Type
 - This field is not typically displayed for users with a registry for trauma patients only.
- Enable ICD Automap
 - The ICD10-CM/PCS to ICD9-CM Automap Feature for the DI Report Writer is a reporting feature unique to the DI Report Writer that utilizes the published General Equivalency Mappings (GEMs) for ICD10-CM/PCS to ICD9 to automatically translate ICD10-CM/PCS codes to ICD9-CM codes in records that have been coded solely in ICD10-CM/PCS. This will allow users to continue to use queries and reports written for ICD9-CM codes without the need to code records with both ICD10-CM/PCS and ICD9-CM codes.
 - The **ICD Automap** specifically uses the following published GEMs tables:
 - 2014_I10gem.txt: GEMs for ICD10-CM codes to ICD9-CM codes for diagnosis, mechanism, location, and activity codes.
 - gem_pcsi9.txt: GEMs for ICD10-PCS codes to ICD9-CM codes for procedures.
 - Furthermore, the ICD Automap only generates the mappings when the feature is enabled for a report and only those cases where no ICD9-CM codes are detected in the record. The **ICD Automap DOES NOT** change data in records, nor does it convert ICD9-CM to ICD10-CM/PCS codes.

Using the ICD Automap Feature

The feature can be enabled or disabled as an option on the Run Report Selection Criteria window. By default, the feature is disabled. To enable the feature, check the box next to the label **Enable ICD Automap**.

When the feature is enabled, records coded in ICD10-CM/PCS without corresponding ICD9-CM codes entered will have the ICD9-CM fields automatically filled with ICD9-CM codes based on the GEMs for ICD10-CM/PCS to ICD9-CM.

EXAMPLE

Patient Summary – Procedure Section (ICD Automap not enabled)

Procedure: 1	
Procedure Code (ICD9)	
Procedure Code (ICD10)	GZ10ZZZ Psychological Tests, Developmental
Category	
Location	
Operation #	
Start Date	// : :
Stop Date	// : :
Diagnostic Result	
Anatomic Region	
Service	
Physician	
Narrative	
Procedure: 2	
Procedure Code (ICD9)	
Procedure Code (ICD10)	B03CZZZ Magnetic Resonance Imaging (MRI) of Acoustic Nerves
Category	
Location	
Operation #	
Start Date	// : :
Stop Date	// : :
Diagnostic Result	
Anatomic Region	
Service	
Physician	

Patient Summary – Procedure Section (ICD Automap enabled)

Procedure: 1	
Procedure Code (ICD9)	94.02 Administration of psychologic test
Procedure Code (ICD10)	GZ10ZZZ Psychological Tests, Developmental
Category	
Location	
Operation #	
Start Date	// : :
Stop Date	// : :
Diagnostic Result	
Anatomic Region	
Service	
Physician	
Narrative	
Procedure: 2	
Procedure Code (ICD9)	88.97 Magnetic resonance imaging of other and unspecified sites
Procedure Code (ICD10)	B03CZZZ Magnetic Resonance Imaging (MRI) of Acoustic Nerves
Category	
Location	
Operation #	
Start Date	// : :
Stop Date	// : :
Diagnostic Result	
Anatomic Region	
Service	
Physician	

It is possible that the GEMs produce additional codes due to the mapping triggering ICD9-CM diagnosis and mechanism codes from a single ICD10-CM. If additional codes are generated, those codes are added in additional slots for ICD9.

In the example below, the ICD10-CM code T71.29XA – Asphyxiation due to being trapped in other low oxygen environment, initial encounter, generates both an ICD9-CM diagnosis code of 994.7 – Asphyxiation/Suffocation and 913.2 - Accidental Mechanical Suffocation – Lack of Air (In Closed Space).

Injury - Mechanism of Injury	
E-Codes	
Primary E-Code	B12.9 Oth MVA Traffic, Collision w/ MV - Driver of MV, Non MC
Primary ICD10 Mechanism	V47.51XA Driver of sport utility vehicle injured in collision with fixed or stationary object in traffic acc
Secondary E-Code	B13.2 Accidental Mechanical Suffocate- Lack of Air (In Closed Place)
Secondary ICD10 Mechanism	
Tertiary E-Code	
Tertiary ICD10 Mechanism	
Injury Type	
Diagnoses - Injury Coding	
Screen Complete	<input type="checkbox"/>
AIS Version	5 AIS 2005
ISS	25
NISS	25
TRISS	
Manual ISS	<input type="checkbox"/>
Injury Narrative	asphyxiation with cardiac arrest
Diagnoses: 1	
ICD 9	994.7 Asphyxia/Suffocation
ICD 10	T71.29XA Asphyxiation due to being trapped in other low oxygen environment, initial encounter
PreDot	020006
Severity	5
ISS Body Region	1
OIS	
Op/Proc Performed	

LIMITATIONS

The ICD Automap feature has the following limitations:

- Records coded in ICD9-CM cannot map to ICD10-CM/PCS codes.
- The ICD Automap does not add ICD9-CM data back into records.
- For many of the mappings, only approximate/estimated ICD9-CM codes are generated. There is no guarantee that the mapped code generated is the best code to use for a given record.
- Only one primary mapping is supported for each ICD10-CM/PCS code. Secondary mappings are not supported.
- DI cannot alter the GEMs provided by the Center for Medicare Services – Department of Health and Human Services.

Using ICD AutoMap with Standard Reports

The following reports include ICD9 fields and therefore the ICD AutoMap feature can be utilized:

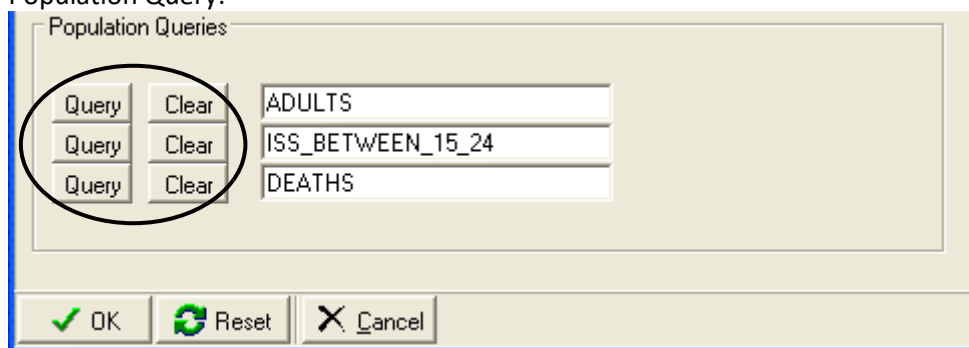
- Patient Summary
- Procedures List
- Procedures Summary
- Injury Summary
- Demographics
- Mini Trauma Service Summary

Population Queries

The Population Queries provide the user with the flexibility of creating subsets on-demand from pre-defined queries in the “Query Manager”.

Example: A user creates a report and selects two Population Queries. The first Population Query is Male Patients. The second Population Query is Penetrating Injuries. When the report is processed, it first cycles through all records and identifies all males, generating a ‘male patients’ subset. It then cycles through the ‘male patients’ subset to identify all penetrating injuries. The final report output includes the subset of ‘male patients with penetrating injuries’.

On the “Run Report” screen select up to 3 Population Queries by selecting the **[Query]** option. Select the **[Clear]** option to remove a selected Population Query.



Population Queries		
Query	Clear	ADULTS
Query	Clear	ISS_BETWEEN_15_24
Query	Clear	DEATHS

OK Reset Cancel

The example above:

- Cycles through all records and identifies all adults. This generates the ‘adults’ subset.
- Cycles through the ‘adults’ subset and identifies adults with an ISS between 15 and 24. This generates the ‘adults with ISS between 15 and 24’ subset.
- Cycles through the ‘adults with ISS between 15 and 24’ subset and identifies any deaths. This generates the final subset of ‘adults with ISS between 15 and 24, deceased’ subset.

The selected Populations display in the header of the report output:

```
Generated 04/22/2010
EDA Dates 01/01/2009 - 12/31/2009
Query: EVERYONE
Population: ADULTS Age between 15 to 55
Population: ISS_BETWEEN_15_24 ISS Between 15-24
Population: DEATHS Final Discharge - Deaths
```

Count Report Options

Basic count reports are also completed from the “Run Report” screen using the **[Count]** option.



To perform a count on a subset of trauma records, select a **[Query]** and then select the **[Count]** option. In the example below, a count of Pediatric records is generated.

```
DI Report Writer Count Report
Generated 07/10/2015
Query PEDIATRIC
Number of Records 8

8 records match your specification.
```

Counts are also useful with Gathers. Select a **[Gather]** and then select the **[Count]** option. In the example below a count of records by gender is generated.

```
DI Report Writer Count Report
Generated 07/10/2015
Query EVERYONE
Gather [Adhoc]

Gender  Count
=====
Male    2
Female  1
n/v     5
```

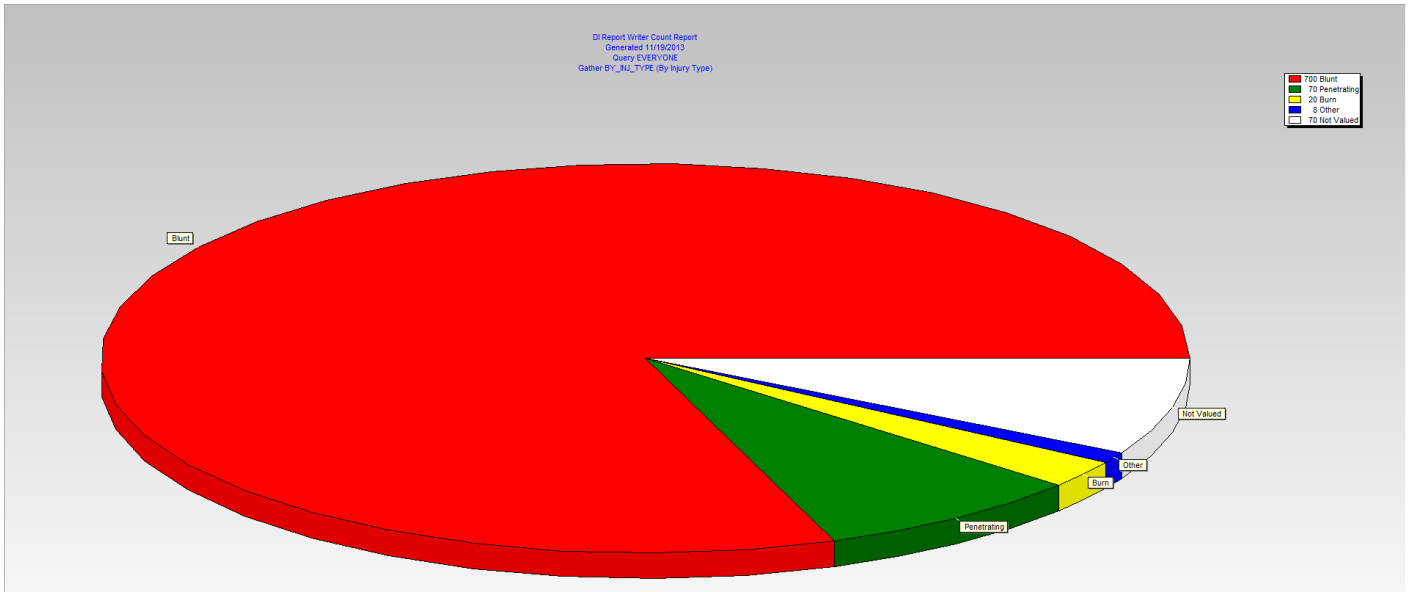
Advanced Report Outputs

Collector Charts – Types of Charts

Use Collector Charts to display statistical output in a chart format. The following types of charts are generated:

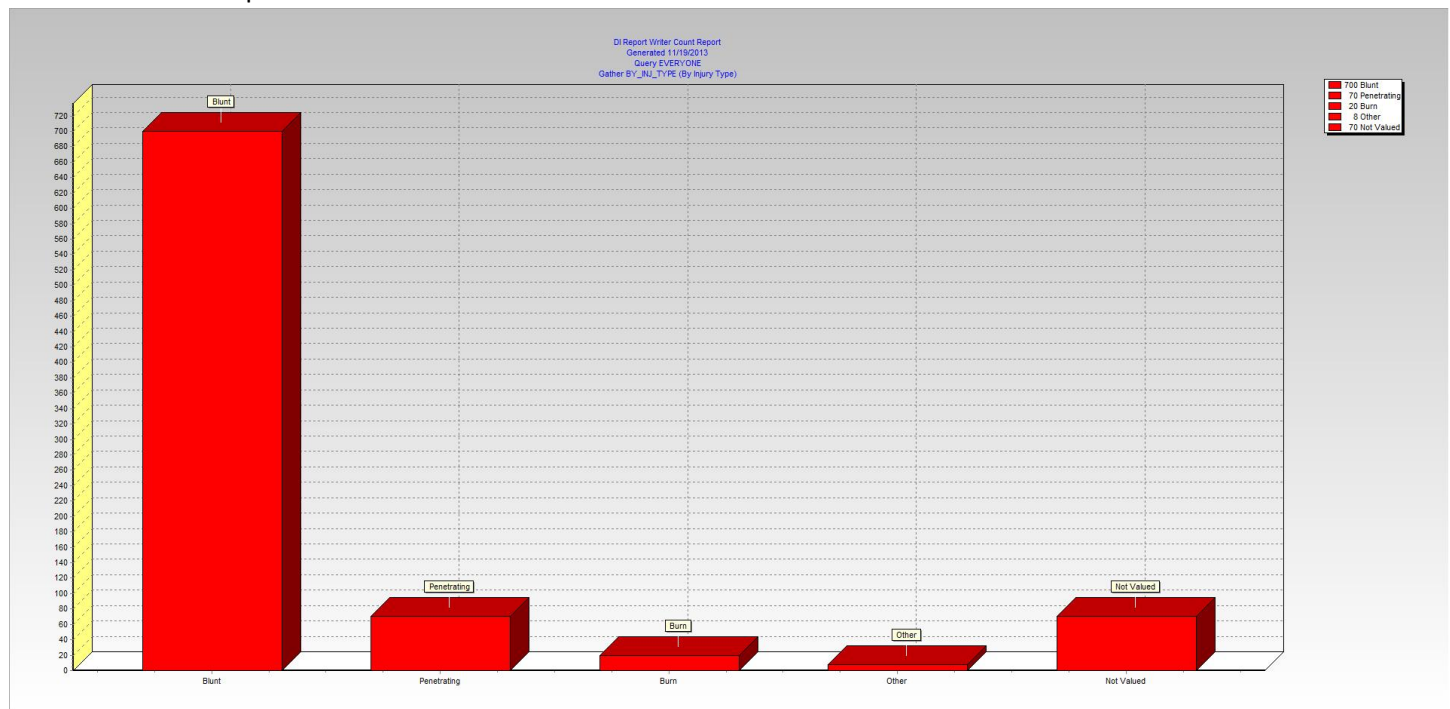
Pie Chart

In this chart, pie slices represent counts or percentages for specified groups. This type of chart is typically used with single series statistical output or Gather counts.



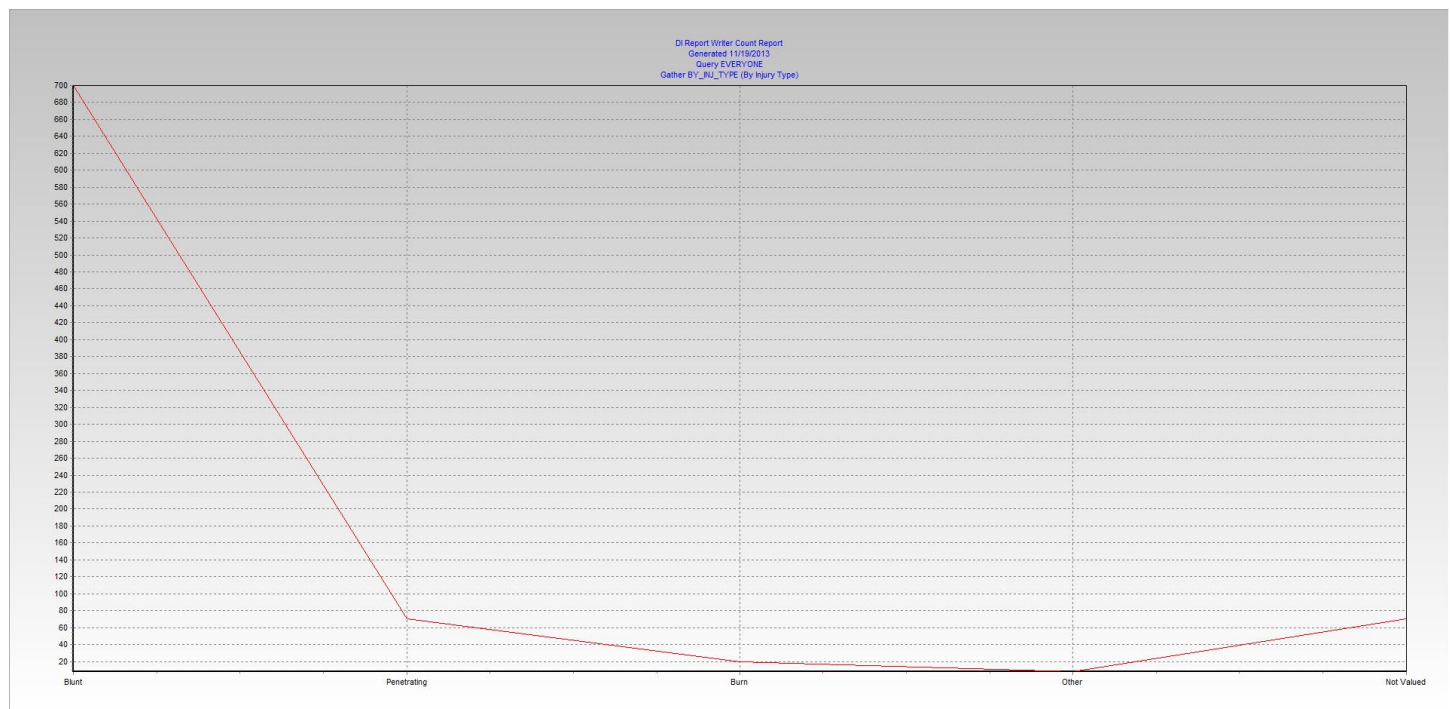
Bar Chart

In this chart, bars represent counts or percentages for specified groups. This type of chart is typically used with single series statistical output or Gather counts.



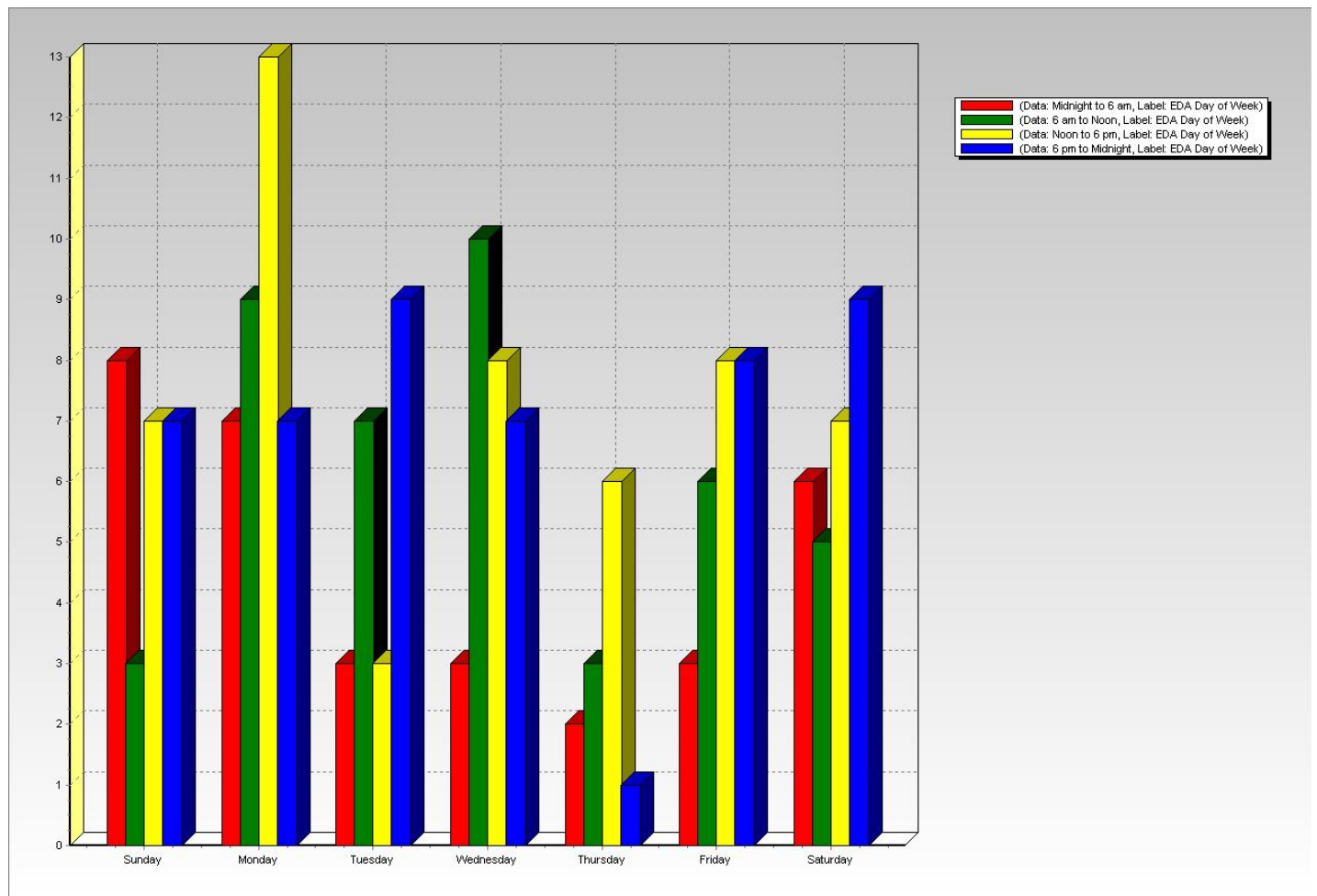
Line Chart

In this chart, information is displayed as a series of data points called 'markers' connected by straight line segments. This type of chart is typically used with single series statistical output or Gather counts.



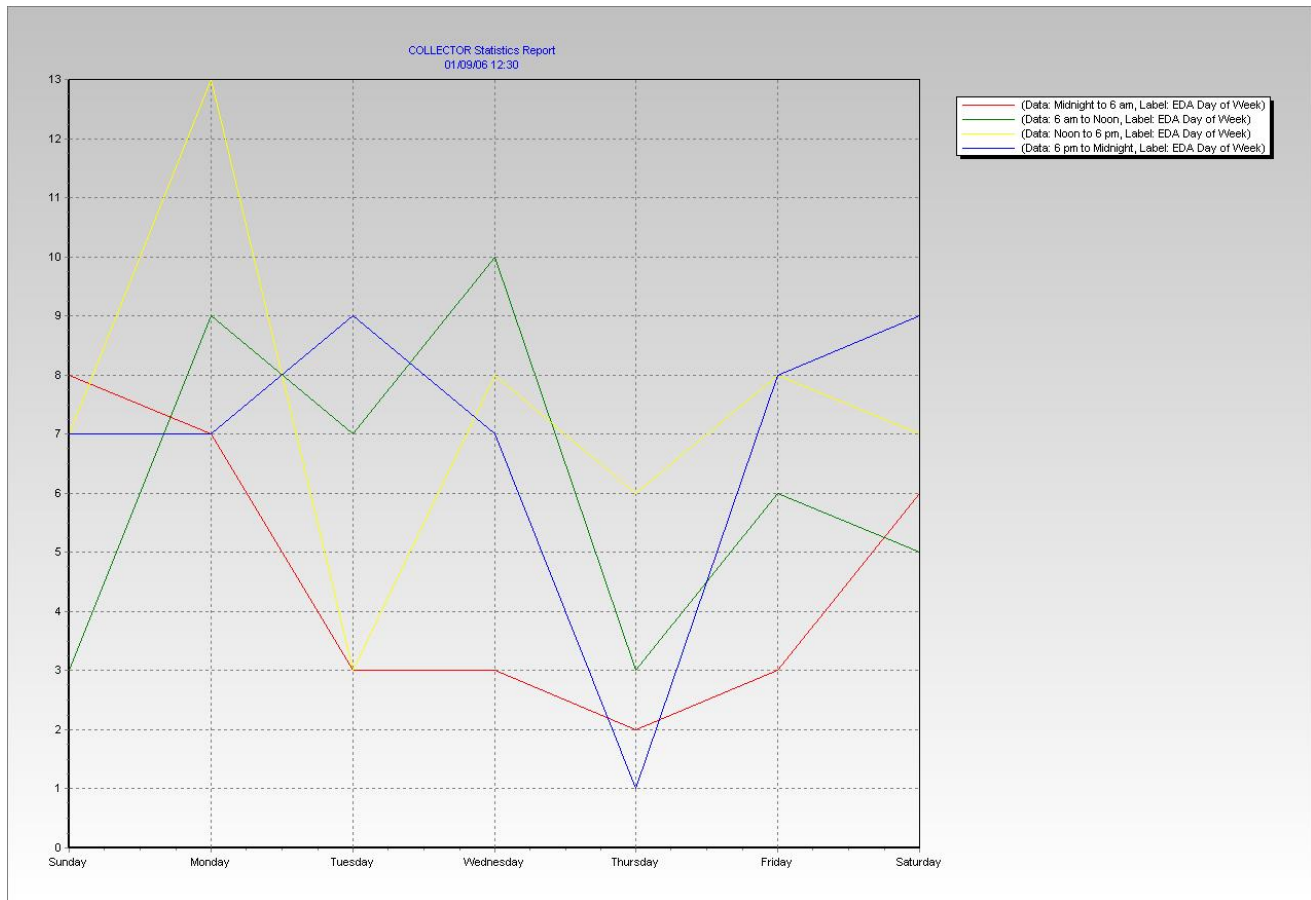
Multi-Bar Charts

In this chart, multiple sets of data are represented with bars side by side in a cluster. This type of chart is typically used with a cross tabular statistical output.



Multi-Line Charts

In this chart, multiple sets of data are represented with lines. This type of chart is typically used with a cross tabular statistical output.



How to Generate Report Output using Collector Charts

1. On the “Run Report” screen, select a Gather or statistical report.

Gather Grouped By: BY_GENDER [Edit] [Clear]

2. Select the **[Advanced Outputs]** option.

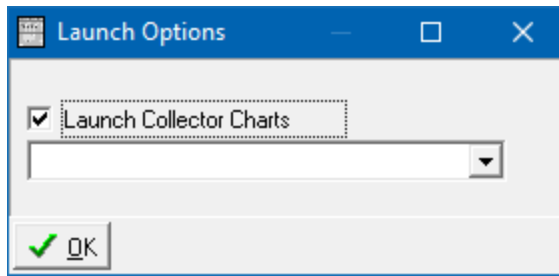
Output

☒ Screen ☐ Printer ☐ File

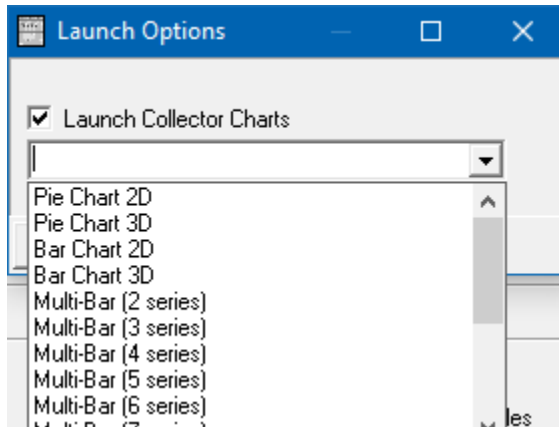
[Print Setup] [Page Setup] ☐ Output Printer Codes

Advanced Outputs

3. Select **[Launch Collector Charts]** from the “Launch Options” screen.



4. Select a chart type.



Report Jobs

Report Jobs allow a user to configure frequently used reporting combinations as a Report Job. Report Jobs are saved and run from a “Report Job Manager”.

Example: If a user frequently runs this combination:

- Demographics Report
- With a Query based on deceased patients
- With a Gather by gender.

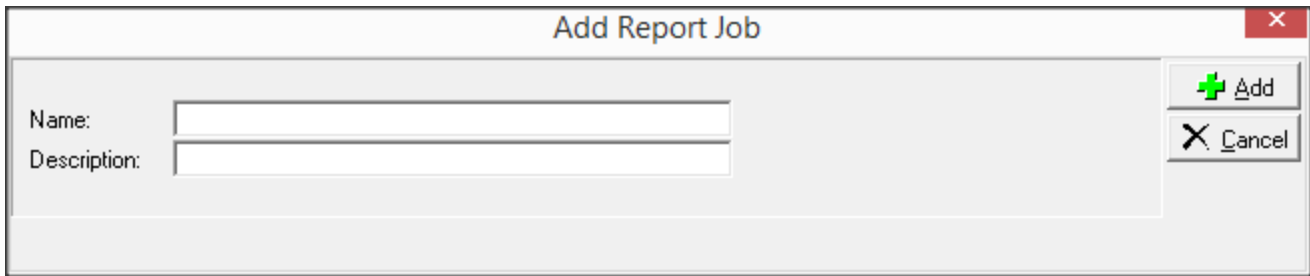
Then this reporting combination is configured and saved as a Report Job. The user runs the Report Job from the “Report Job Manager”.

How to Create a Report Job

1. From the “Define” menu, select “Report Job”. Then select “Add”.

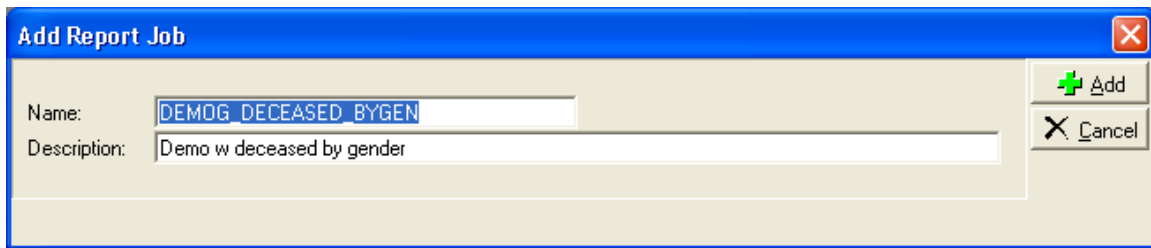


2. The “Add Report Job” screen opens.



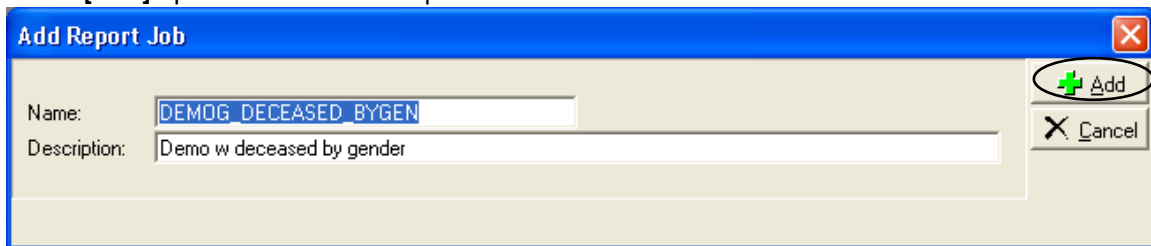
The "Add Report Job" dialog box has a title bar with a close button (X). It contains two input fields: "Name:" and "Description:". To the right of these fields are two buttons: a green plus icon labeled "Add" and a red X icon labeled "Cancel".

3. Enter a "Name" for the report job. The "Name" is used to uniquely identify the report job. The "Name" field allows up to 20 alphanumeric characters and underscores. This field does not accept spaces. It must also start with an Alpha. No special characters (other than underscore) are allowed.
4. Enter a "Description" for the report job. The "Description" field provides additional information to help identify the report job. This field allows up to 27 characters (including spaces).



The "Add Report Job" dialog box is shown with data entered. The "Name:" field contains "DEMOG DECEASED BYGEN" and the "Description:" field contains "Demo w deceased by gender". The "Add" and "Cancel" buttons are still present on the right.

5. Select the **[Add]** option on the "Add Report Job" screen.



The "Add Report Job" dialog box is shown with the same data as the previous screenshot. The "Add" button, which has a green plus icon, is circled with a black oval to indicate it should be selected.

6. The "Report Job Editor" screen opens.

Report Job Editor

Name:

Description:

Report ☒ Standard ☐ User

Clear

Query For:

Clear

Gather Grouped By:

Clear

Output

☒ Screen ☐ Printer ☐ File

Print Setup Page Setup ☐ Output Printer Codes

Advanced Outputs

Save Save As ☒ Report Options Run Close

- Follow the instructions in the 'Run Report' section of the user guide to select the appropriate Report Writer tools from the **[Report]**, **[Query]**, and **[Gather]** options.

Report Job Editor

Name:

Description:

Report ☒ Standard ☐ User

Clear

Query For:

Clear

Gather Grouped By:

Clear

Save Save As ☒ Report Options Run Close

- Follow the instructions in the 'Run Report' section of the user guide to select the output: **[Screen]**, **[Printer]**, or **[File]**.

9. Select the **[Report Options]**. The “Run Report” screen opens. Enter default run report criteria and save. This run report criteria is saved as a part of the report job.

10. On the “Report Job Editor” screen:

Report Job Editor

Name:

Description:

Report ☒ Standard ☐ User

Clear

Query For: Clear

Gather Grouped By: Clear

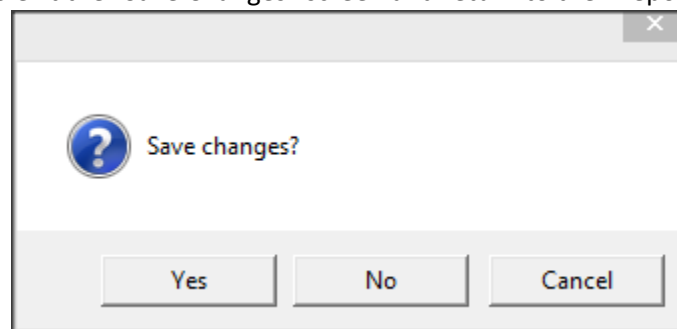
Output

☐ Screen ☐ Printer ☐ File

Print Setup Page Setup ☐ Output Printer Codes Advanced Outputs

Save Save As ☒ Report Options Run Close

- Select **[Save]** to save the report job.
- Select **[Save As]** to save the report job, with a different name.
- Select **[Run]** to run the report job.
- Select **[Close]**.
 - Select **[Yes]** to save changes.
 - Select **[No]** to discard changes.
 - Select **[Cancel]** to exit the “Save Changes” screen and return to the “Report Job Editor” screen.



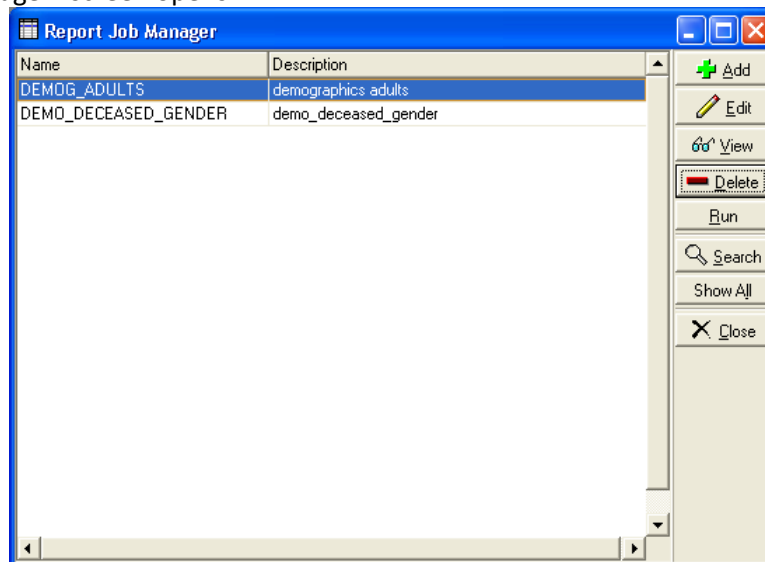
How to Run a Previously Saved Report Job

To run a previously saved report job, follow the steps below.

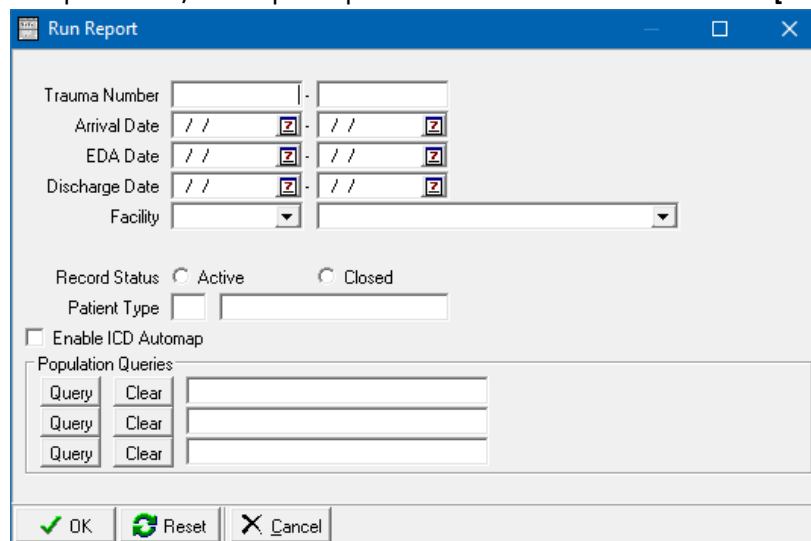
1. From the “Define” menu, select “Report Job”. Then select “Manage”



2. The “Report Job Manager” screen opens.



3. To run a previously saved report job, select the report job from the “Report Job Manager” screen. Then select **[Run]**.
4. The “Run Report” screen opens. Add/edit report options on this screen and select the **[Run]** option.

The image shows the 'Run Report' window. It contains several input fields and options: 'Trauma Number' (text box), 'Arrival Date' (date picker), 'EDA Date' (date picker), 'Discharge Date' (date picker), 'Facility' (dropdown menu), 'Record Status' (radio buttons for 'Active' and 'Closed'), 'Patient Type' (text box), 'Enable ICD Automap' (checkbox), and 'Population Queries' (three rows of 'Query' text boxes with 'Clear' buttons). At the bottom, there are 'OK', 'Reset', and 'Cancel' buttons.