

Shazam Quick Report Special Features

Quick Report Special Features

There are several additional features not included in the Quick Report Help System:

Sorting of Fields on the Query Tab:

On each table, you can right-click and sort fields alphabetically. You can also return the fields to the original order. The sorting choice is saved with the report.

Exporting Data from the Preview:

When the preview grid is displayed, you can export data to a file or open the table as a spreadsheet from the right-click menu. See [Exporting Screen Tables](#) for details. If the preview is a page layout view, use the toolbar button or the menu to switch to the table grid record view.

Creating PDF Files:

The report writer does not directly create PDF files, but you can easily do this by printing to a PDF driver. For more information on using the supplied PDF driver, see the [PDF Driver](#) topic.

Grouped Queries with Lists:

If you group fields (in the Value Editor under Show), you can use List (along with Count, Max, etc.) for any field. List takes all of the detail values and gives you a string of the values, separated by commas. For example, if you have a query of the Member table and group by Last_Name, but set First_Name to List, you will see a field with all of the first names for each last name: RALPH, NORA, JAMES, ...

Custom Fields and Expressions (Advanced):

In the value editor, you can create a calculated field using a valid SQL expression. This field can be a calculation based on other fields, or a more complex expression. The value editor has an expressions tab to assist you in selecting fields and symbols; the program does not check your SQL expression until you preview or print the report.

It is a good idea to change the header of a custom field to a more useful name. You can also set the data type of the field.

Passing Parameters (Advanced):

You can get the results of user questions and use them in the report layout. To do this, you need to create a custom field. There are two different ways of doing this, to accomplish different purposes

If you want to ask the user a question for a filter, but also get the value for use in the report layout:

- Set up the filter normally on a field to ask any question you like.
- Set up an additional Custom/Expression field. Make sure to set the data type on the value tab.
- For the expression itself, use the name of the parameter (the format is *[Question text]*) from the filter on the first field. There is a choice of Parameters on the Expression tab so you can copy this exactly.
- For example, you can ask the user to filter out payments by giving a start and end date, then put these dates into the report header.

If you want to ask the user a question only to get a value to place in a report layout:

- Set up a additional Custom/Expression field. Make sure to set the data type on the value tab.
- Set up a filter question on this field. The question is used only to get the value from the user; no actual filter is created.
- For the expression itself, use the name of the question parameter (the format is *[Question text]*) from this field. There is a choice of Parameters on the Expression tab so you can copy this exactly.

In the report, you can display the user response in a label by choosing the custom field, just like any other field. Filter questions in either case must be answered or you will get an error. Choose the feature to Hide the Show All choice to make sure that the user answers the question.

Editing Join Conditions (Advanced):

Joins between tables are normally one of two preset types (see [Joined Tables](#)). In special situations, you may need to add SQL code to the Join Condition. To do this, double click on the Join line (or select it and edit the join from the menu), and fill in any desired text in the Added Join Condition field provided. The condition(s) must be preceded by the appropriate AND or OR. The condition must use correct SQL syntax and the correct table aliases.

Example: If you want to show all of the active members, and any charges paid in the current month, you can link the MEMBER and CHARGE tables, and choose to show all Members whether or not charges exist. If you add a filter to restrict the charges to the current month, you will not see any members without current charges. The solution is to put the filter into the join condition by writing in "and CHARGE_1.PAID_THRU_DATE = '12/31/2014'; this joins each member to the list of charges for that month, but the member is still shown even if there are no charges.

If you would like to entirely replace the join condition, check the box No Default Join Condition. The condition will be taken from the text entered in the Added Join Condition field. This condition should not have a preceding AND or OR.

Using Stored Procedures (Advanced):

WSI Support may provide you with special stored procedures to display data. To use these stored procedures, use the Add Table feature and click on the radio button to display any stored procedures. If a stored procedure has parameters, list them by right-clicking on the box that has the stored procedure and choose Set Parameter List. Enter the values exactly as they need to appear, enclosed in parentheses and separated by commas. Text and date values need to be surrounded by single quotes.

The list of stored procedure parameters can contain values taken from user questions. If you set up a parameter (Passing Parameters, above), you can ask the user a question, then insert the answer in the list of parameters for the stored procedure. To do, this, use a colon plus the question prompt. For example, if the user question is *Enter a Date*, then put *:Enter a Date* into the list of stored procedure parameters.

There are additional features of filters not included in the Quick Report Help System:

Displaying Filter Conditions in the Layout:

You may want to display the filter criteria on the report to show which records have been selected. This is especially useful if the filters have user questions and the report is different each time it runs.

To display filter criteria in the layout, place a label or memo in the desired band (usually the Report Header or Page Header), edit the caption, and use the @FilterLabel or @FilterMemo functions:

- @FilterLabel -- Shows the conditions in one line, with the conditions separated by a semicolon. This would normally be using in a label. If the label height is increased, the text will wrap.
- @FilterMemo -- Shows each condition on a separate line. This would work best in a memo control.

As with any function in a label, you can add other text before and after the function.

The conditions shown will use the Header value on the Query tab for each field. This defaults to the database field name; since it often contains underscores, you may want to edit the header for certain fields before you make the layout. For example, the header for "Last_Name_Mixed" could be changed to "Last Name". Field names on the layout tab are the header values enclosed in square brackets; if you change a header on the Query tab *after* you have created a layout, you will need to change the corresponding field name on the layout tab as well.

Advanced Filter Commands

On the Filter tab of the Value Editor, you can choose a Commands to specify the kind of filter. In the drop-down box, there is a line after the "Is Not Between" command; all of the commands below are shown in italics; these are for advanced users.

Finding Data that Partially Matches:

On the Filter tab of the Value Editor, choose the command "Starting With" with to search for values that start with specific text. Choose "Containing" or "Is Like" to search for field values that contain specific text anywhere in the field. "Starting With" and "Is Like" are case sensitive, while "Containing" is not case-sensitive. "Is Not Like" and "Not Containing" will display field values that *do not* contain the filter text.

Simple examples:

- Is Like "SMITH" -- Selects *SMITH*, *SMITHFIELD*, and *BROWN-SMITH*. Does not select Smith, Smithfield, or Brown-Smith.
- Containing "SMITH" -- Selects *SMITH*, *SMITHFIELD*, *BROWN-SMITH*, *Smith*, *Smithfield*, and *Brown-Smith*.
- Is Not Like "SMITH" -- Selects Brown, Hernandez, Smith, Smithfield, and Brown-Smith. Does not select *SMITH*, *SMITHFIELD*, or *BROWN-SMITH*.
- Not Containing "SMITH" -- Selects Brown, Hernandez, Jones. Does not select *SMITH*, *SMITHFIELD*, *BROWN-SMITH*, *Smith*, *Smithfield*, or *Brown-Smith*.
- Starting With "SMITH" -- Selects *SMITH*, *SMITHFIELD*. Does not select Smith, Smithfield, or Brown-Smith.
- Not Starting With "SMITH" -- Selects Brown, Hernandez, Jones, *BROWN-SMITH*. Does not select *SMITH*, *SMITHFIELD*.

"Is Like" and "Is Not Like" allow for wildcard characters that stand for one or more characters: "%" stands for any number of characters and "_" stands for any one character. If you use wildcards, the data must match the pattern as specified; without wildcards, the filter looks for the text anywhere in the field value. "Containing" does not allow for wildcards.

Examples with wildcards:

- Is Like "%MITH" -- Selects *SMITH* and *BROWN-SMITH*. Does not select *SMITHFIELD*, *Smith*, *Smithfield*, or *Brown-Smith*.
- Is Like "%MIT_" -- Selects *SMITH*, *BROWN-SMITH*, and *BRUMMITT*. Does not select *SMITHFIELD*, *Smith*, *Smithfield*, or *Brown-Smith*.

Advanced Filter Matching:

The command "Is Similar To" uses the system of Regular Expressions; you can enter a string of characters to match many different patterns at once. See the topic [Regular Expressions](#) for exact rules.

Comparing Two Fields in a Filter:

If you would like to filter records where one field is compared to another field, you can create a filter in either field. Instead of entering a value in the filter, enter the other field name with the @FIELD function:

@FIELD('Tablename.FieldName')

Use the @FIELD function with the field name in single quotes, within parentheses. The table can be added before the field name (with a period in between) to make sure that the meaning is clear. In each record, the value of the field specified is used in the filter instead of a constant value that you supply. The field for comparison should be chosen in the query tab and showing as a value in a column.

For example, if you wanted a list of all of the records in the member table where the initiation date was after the hire date:

- Add both fields to the query.
- Set up a filter under the initiation date, set to Greater Than.
- Enter a value of @FIELD('MEMBER_1.HIRE_DATE')

It is usually easier to use the Filter Dialog (below) where you can choose from a list of available fields.

Searching for Null and Blank Values:

In an SQL database table, fields may have no value; this value is referred to as "NULL". Text fields may also have a value of an empty string -- there is a value, but it is empty. Unfortunately, the database treats these two values -- NULL and an empty string -- as different values, and if you request one in a report you will not get the other.

In most forms, if a database text field has never been filled in, it will be a NULL . If it has had a value, and the user clears it on the screen , it may be an empty string.

When creating a filter in a report, you have to use special words to request these values:

- BLANK, or @BLANK_OR_NULL -- When using Is Equal to, you will get both blank and null values. When using Not Equal to, you will get everything but blank or null values. Both are interpreted in the same way
- @BLANK -- A blank or empty string
- @NULL -- A null value

In almost every situation, use BLANK to find records that appear blank on the screen.

You can enter these special functions in the Query tab in the Value editor / Filter tab by entering special text or using the Edit Filter Dialog (below).

You can only use these special values for Is Equal To and Is Not Equal To. For Like or Not Like, the expression will be interpreted as Equal or Not Equal. All other filter commands will give an error if used with these special values.

If your database is Firebird 1.5, when using filters like Is Not Equal To, NULL records will not be returned. When asking for values in a specific field, NULL records will only be returned if asked for explicitly. For example, a Filter for the Middle Initial field of Is Not Equal To 'M' will give records not 'M' that have a blank or a value in that field, but not records that are NULL. To get NULLs as well, you will have add a Filter 2 that asks for records Is Equal To @NULL.

In Firebird databases beginning in version 2.0, the report writer handles this automatically, so you will get the NULL values.

Filters with Quotes or Apostrophes:

If you are entering a value in a filter that has a quote or an apostrophe -- O'CONNOR, for example -- this requires special treatment. Because the database filters consider characters inside of quotes specially, one single apostrophe or quote causes an error. To enter values like this simply enter two instead of one -- O"CONNOR.

Special Date Filter Values:

In a filter for a date field, you can use the following special values to represent a relative date:

- NOW -- This is a date and time.
- TODAY
- TOMORROW
- YESTERDAY

These values are evaluated to a date each time the report is run.

Including Questions for Users:

When you enter a filter, you can create selection questions (parameters) for the user; when the report is previewed or printed, the user is asked one or more questions in order to filter the records; the report gives different results each time, based on the answers.

Questions may have a default answer that is supplied by the person who created the report. Once a report is run and questions are answered, the answers are used as the defaults for that user when the report runs the next time.

In this way, you can make one report format with different selection possibilities, eliminating many similar reports. A more experienced user can construct the report, but less experienced users can run it.

The user will see a dialog with a grid of questions. Each question is on one row, and there are three columns for each question:

- A prompt that describes what needs to be filtered.
- An edit box, combo box, date picker, or period control to hold the user's answer.
- A Show All checkbox -- The user can check this to indicate that all values of the field should be shown and no filter should be applied. This allows you to specify many possible filters, even if some are not used every time. You can specify that the checkbox is checked by default (this filter will not normally be in use) or that the checkbox is disabled.

- "Between" conditions -- Enter a clear prompt, one for each condition (start and end). The user will see two entry boxes. The Show All checkbox will appear to the user for each condition. If checked on the start value, it means that only a maximum will be used (as if you had used "Less than or equal to"). If checked on the end value, only a minimum will be used (as if you had chosen "Greater than or equal to").

There are several features to assist the user and make the dialog more flexible:

- Defaults -- The report can have default values for each question.
- Saved values -- Each time a user runs the report, the answers are saved for the next time.
- Loading and clearing values -- The dialog also has buttons to reset the values to defaults, load the last saved values, and clear all values.

When you create a report, you can set up these questions in the Query tab in the Value editor / Filter tab by using the Edit Filter Dialog (see below) or by entering special text (advanced users only, see below).

Edit Filter Dialog:

To create or edit a user question or enter a special filter value, go to the Query tab Value Editor / Filter tab, highlight the desired filter value, and click the Edit button. You will see a dialog that is used to set up the filter.

Types of Filters -- Choose from 4 types:

- *Filter value* -- Use this choice to enter a simple filter value; the dialog is not required for this choice.
- *Special Value* -- If you would like to indicate a null or blank value, choose it from the drop-down list.
- *A Field (Advanced)* -- The value of the field in each record is used for the filter. You can choose from a supplied list of fields in the query. The fields are shown in the format of *TableName.FieldName*.
- *User Question* -- Questions require a prompt for the user; you must enter text (step 2). Questions can be for a text field, date field, a month (or other period), a pick list of values, or a lookup list from a table:

1. Text Box -- This gives the user a text box for their response. You can also enter an optional default answer; this default will be automatically shown as the response unless the user changes it.

2. Date Picker -- The user will enter a date into the standard calendar date-picker control. You have three choices to specify a default answer:

No Default -- The date will appear blank and the user will enter a date.

One Date -- You choose a specific date that will be the default.

Special Date -- If you want the default to change relative to the actual date that the user runs the report, you can specify today, or the beginning/end of the Month, Quarter, or Year. The default is calculated when the report runs. See "Default date and period values" below.

3. Periods -- You can also choose to have the user enter the response in a period spin control for a Month, Year, Quarter, Season, Biweekly period, Semimonthly period, or Fiscal Year. You can choose to enter a default:

No Default -- The period will appear blank and the user will enter a period .

One period -- You choose a specific period that will be the default.

Special Date -- If you want the default to change relative to the actual period when the user runs the report, you can specify This Period. The default is calculated when the report runs. See "Default date and period values" below.

4. Pick List -- If you want to give the user a list of valid answers, enter them in the grid supplied. Put each answer on a separate line. Add lines with the down arrow or CTRL INS, and delete lines with CTRL DEL. The first answer becomes the default.

5. Lookup List from Table -- This choice allows you to supply the user with a list of answers that are records in a database table. Many important fields have a lookup table that lists the valid values. To set up the lookup list:

Lookup Table -- Choose the table that contains the values.

Filter Field -- Choose the field in the table that corresponds to the filter field in your query.

Description Field -- Many lookup tables have codes that are unfamiliar to the users. If the table has a description field, choose it here; the user will see the description as well as the code.

Lookup Filter (Advanced) -- If you wish to restrict the user to only certain records in the lookup table, you can enter a valid SQL statement here (this is a where clause, but do not include WHERE). Only records that correspond to the filter will be shown as choices.

Field Order (Advanced) -- If you wish to control the order of the list (default is by the description field), you can enter a list of sort field names. This must be a valid SQL Order By clause (without ORDER BY) and can contain ASC, ASCENDING, DESC, or DESCENDING after each field to indicate sort direction.

Allow Multiple Choices -- Check this to give the user a dialog listing all the choices. The user can then select one or more values for the filter.

- *A Literal (Advanced)* -- Text entered here is repeated exactly when the filter is created. This allows advanced users to go beyond a comparison value and include functions, subqueries, and anything else. The text must conform to the rules of SQL.

Initial defaults are determined by the settings above. After a user runs a report, those settings are saved for that user and are filled in as the new defaults. Each user has their own defaults.

Other Options:

- **Hide Show All Choice** -- The user normally can choose Show All (see above). Checking this box disables this choice and forces the user to choose an answer.
- **Show All defaults to True** -- Check this if you want the Show All box to normally be true. This is appropriate if the filter is not commonly used in the report.

When you click OK in the dialog, you will be required to fill in certain fields, depending on your choices. The dialog will fill in the filter box with a coded formula; do not change it unless you understand the section below.

Entering Filter Strings (Advanced):

Most users should use the Filter Dialog above. Advanced users can create report filters by entering special text in the Query tab in the Value editor / Filter tab, instead of just a filter value. You can enter the prompt and suggested values. You can also indicate what type of control should be used to hold the user's answer.

When entering a filter value, you have several choices for creating a question:

- A simple question:

[Enter a type:]

- A question with a calendar date control (Date fields will do this automatically):

[Enter a date:]=1/21/2012

- A question with a default value:

[Enter a type:]=Active

- A question with a drop-down list of acceptable answers:

[Choose a type:]={Member,Non-member,Associate}

- A question with a drop-down lookup list from a table in the database:

[Choose an employer code:]={~Employer, Employer_Code}

- A question with a drop-down lookup list containing a code and a description field from a table in the database:

[Choose an employer:]={~Employer, Employer_Code, Employer_Name}

- A question with a lookup dialog containing codes and description fields from a table in the database. The user can select multiple values:

[Choose an employer:]={~Employer, Employer_Code, Employer_Name}/M

- A question with a drop-down lookup list containing a code and a description field from only some records in a table in the database:
- [Choose an employer:]={~Employer, Employer_Code, Employer_Name, Inactive_Record = 'F'}
- A question with a drop-down lookup list containing a code and a description field with a sort order:

[Choose an employer:]={~Employer, Employer_Code, Employer_Name, ;;Employer_Name, Employer_Code}

- A question that requires a period date (month, year, quarter, etc.):

[Choose a report period:]=1/31/2012 \M

Here are the rules:

- The parameters have a prompt enclosed in square brackets.
- An equal sign after the prompt is used to specify values.
- Curly brackets enclose a list of specified values.
- Curly brackets with a tilde(~) are used to specify a lookup list from a table. Give the table name and the field from that table that will be used in the filter. If you give a second description field from the lookup table, this will be displayed, but the first field will still be used in the filter. If you specify an additional parameter, this will be used to filter out records from the table (this must be a legal SQL Where clause, without WHERE). If you specify another parameter beginning with ,;; this will be used as a list of sort fields (this must be a legal SQL Order By clause and can include desc, asc keywords).
- A backslash and a period character indicate that the user should get a period entry control. The type of period should be placed after the equals sign:

\M -- Monthly period

\Y -- Yearly period

\Q -- Quarterly period

\4 -- Quarterly seasonal period (Spring, Fall, etc.)

\F -- Fiscal Year

\W -- Weekly period

\B -- Biweekly period

\S -- Semi-monthly period

\C -- Count

- Default date and period values can use special symbols that refer to dates relative to today (the day the report is run):

@TODAY -- Today's date

@MONTHBEGIN -- First day of this month

@MONTHEND -- Last day of this month

@QUARTERBEGIN -- First day of this quarter

@QUARTEREND -- Last day of this quarter

@YEARBEGIN -- First day of this year

@YEAREND -- Last day of this year

@THISPERIOD -- For Period controls, this month/quarter/year

You can add _PLUS or _MINUS along with a number to indicate a certain number of days or months before or after the chosen date. Some examples:

@TODAY_PLUS_5 -- Five days after today

@MONTHEND_MINUS_1 -- The day before the last day of the month

- Show All settings:

/A -- Check the Show All box by default. Use if this filter will seldom be used.

/H -- Disable the Show All checkbox so this option is not available for this filter.

These special default date values and Show All settings are used along with the other options:

[Choose a report period:]=@MONTHEND \M /A

Here is the syntax:

User enters value -- [Prompt]

with default -- [Prompt]=DefaultValue

Drop down list -- [Prompt]={Value1, Value2, Value3, ..}

Lookup list from table -- [Prompt]={~TableName, FilterField}

with description -- [Prompt]={~TableName, FilterField, DescriptionField, WhereClause}

Lookup Dialog from table -- [Prompt]={~TableName, FilterField}

with description -- [Prompt]={~TableName, FilterField, DescriptionField, WhereClause, ;;OrderByClause}/M

Period value -- [Prompt] \PeriodType

with description -- [Prompt]=DefaultDate \PeriodType

(See period types and default dates above)

You can also enter special functions (see above):

- A Field Name -- @FIELD(TableName.FieldName)

- Literal Text -- @LITERAL('Text goes here')

You can use the @ functions for default date values as a normal filter value in a date field when there is no user question. The functions behave as above including the PLUS and MINUS options; @THISPERIOD evaluates to the end of the current month. Just enter them into the filter instead of a date. Do not use any of the other codes or switches.

Custom Filters (Advanced):

If you are proficient in SQL, you can create filters beyond the normal capabilities of the user interface. On the filter screen, Choose the command Custom instead of one the usual operators like Is Equal To. This uses the contents of the filter Value 1 blank as the entire condition, without modification or comparison. You can write anything you want, including multiple conditions with AND or OR, Exists (select ...), Not Exists(), etc.

You can also include the results of a different question within any other filter by entering a colon and the question prompt. When the report runs, this will be replaced by the value that the user enters.