

# Filters

(Numeric, Character, and Date Fields)

## Global Filters

### Used For

To ask questions of data in a table without adding a new field.


### When Used




Used extensively to ask a variety of questions before or after a command has been executed.

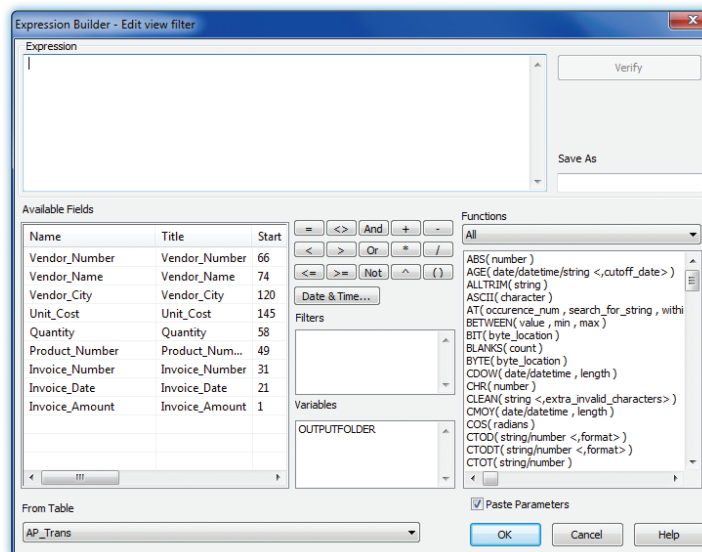
### Examples

- Identify purchases over \$5,000 in an accounts payable transaction table.
- Identify customers with a credit limit over \$10,000 in an accounts receivable master file table.

### Steps

You enter the expression builder either by clicking the Edit View Filter button  in an open table or clicking the If button while working with any ACL command. The illustrations in this section use the Edit view filter window, but the expression builder operates the same in an If window.

-  *Open the table you plan to build a filter for if it is not already open.*
-  *Click the Edit View Filter button  to open the Edit view filter window.*



The Expression box is where you build filters using the available fields in the current table, as well as the operators (=, <, >, AND, etc.). There are three components to a filter: (1) field, (2) operator and (3) a numeric value, character value, or date.

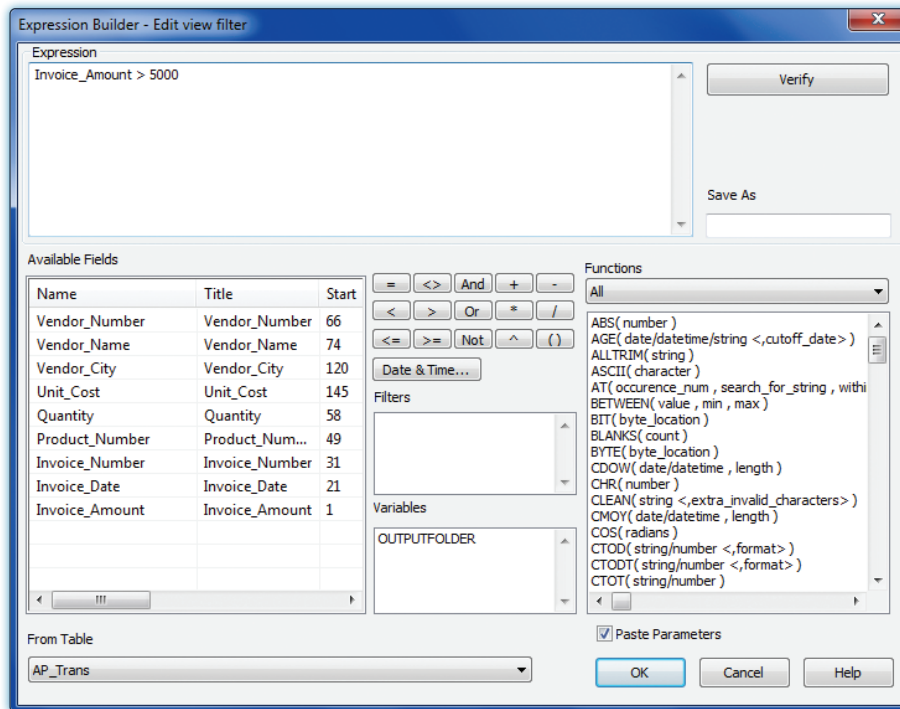
- In the Available Fields portion of the window, double-click the name of the field for which you are building a filter. Notice that the field name is inserted in the Expression box.
- Use the operator buttons (=, +, <, >, etc.) and the numeric keypad on the keyboard to build the filter.
- Enter an appropriate string or value after the operator. Use the following guidelines:
  - Enter numeric values as a number with no commas or dollar signs. For example, to enter \$1,000, type 1000.
  - Enclose character values with one or two quotations. For example, to enter department D10, type "D10" or 'D10'. Be careful to use the same case as is used in the data field.
  - Click on the Date button located just below the mathematical operators to open the Date Selector box. Click the drop-down arrow to enter the monthly calendar box.




- To select a month, click the right arrow to advance the month, or the left arrow to reverse the month.
- To select the day, click the appropriate day in the calendar.
- To select the year, click the year in the calendar and scroll to the appropriate year.
- Click OK to add the date to the Expression box.

After you have completed the filter it should appear in the Expression box in the form at the top of the following page.

# FILTERS





For more complex filters, use the AND, OR, or NOT operators and repeat the preceding process for each portion of the filter. After selecting an AND, OR or NOT, it is necessary to repeat all three components of the filter.

 Click OK to complete the filter.

The same table appears in view, but only the filtered records are included. An example follows.



	Invoice_Amount	Invoice_Date	Invoice_Number	Product_Number	Quantity	Vendor_Number	Vendor_Name	Vendor_City	Unit_Cost
2	6705.12	11/17/2018	2275301	070104677	976	13808	NOVATECH Wholesale	Des Moines	6.87
3	7955.46	11/17/2018	6585673	070104657	1158	12433	Koro International	Sheveport	6.87
5	10531.71	11/17/2018	589134	070104377	1533	12130	Stroud & Sons	Minneapolis	6.87
6	5734.00	10/30/2018	49545947	030414313	122	13411	United Equipment	Salt Lake City	47.00
21	7762.04	11/12/2018	2214405	030309373	767	11837	Wholesome Hardware	West Warwick	10.12
23	18883.34	11/12/2018	74841	030302303	458	10134	Stars Trading	Milwaukee	41.23
36	7125.80	10/21/2018	8752512	090584072	41	11475	Triathlon Group	Shakopee	173.80
55	15444.80	09/30/2018	588782	010102840	392	12130	Stroud & Sons	Minneapolis	39.40
56	5961.60	09/30/2018	292710	010135060	216	14438	Bloom County Construction	Orange	27.60
66	16642.56	01/11/2018	982756	052504005	4224	11922	DIDA Limited	Austin	3.94
67	56767.20	01/31/2018	237936	080102618	3379	10025	Mitchell Ent.	Rolling Meadow	16.80
70	20386.19	08/14/2018	8753401	080126008	8459	11475	Triathlon Group	Shakopee	2.41
101	11068.20	10/15/2018	5518912	060102096	286	13440	Great Western Limited	Washington	38.70

 If you want to change the filter, click (fx) again to return to the Edit View Filter window. Make changes in the filter and click OK.

 If you want to save the filtered data to a new table, use the Extract command. See the Extract command guidance. Save the table if you plan significant additional tests on the filtered data.



You can also apply additional commands to a filtered table until you remove the filter.

-  Click the Remove Filter button  after you have completed all additional tests on the filtered table to return to the unfiltered table.

## Command Results



After a filter is applied to a table, only the records that meet the condition specified in the filter appear on the screen. The filtered data can be extracted into a new table or the filter can be removed to return to the original table.

## Quick Filters

Quick filters are a subset of global filters. They are used to ask questions of data in an open table without using the Expression Builder. Quick filters are used extensively to ask a variety of questions when a record in the table can be used as a frame of reference. Examples of quick filters include:

- Identify all sales transactions for a specific customer in a sales transaction table.
- Identify all accounts receivable over an amount selected in a table of accounts receivable.

To create a quick filter, complete the following steps.

-   Open a table in which you want to apply the quick filter (typically a table is already open when you use a quick filter). A table appears, similar to the one that follows.

# FILTERS

	Product_Number	Product_Class	Location	Product_Description	Product_Status	Unit_Cost	Cost_Date	Sales_Price
1	070104347	07	06	LATEX SEMI-GLOSS ORANGE	A	6.87	10/10/2018	9.99
2	070104397	07	06	LATEX SEMI-GLOSS CAMEL	A	6.87	10/10/2018	9.99
3	070104177	07	06	LATEX SEMI-GLOSS LILAC	A	-6.87	10/10/2018	9.99
4	070104677	07	06	LATEX SEMI-GLOSS APRICOT	A	6.87	10/10/2018	9.99
5	070104657	07	06	LATEX SEMI-GLOSS PINK	A	6.87	10/10/2018	9.99
6	070104327	07	06	LATEX SEMI-GLOSS YELLOW	A	6.87	10/10/2018	9.99
7	070104377	07	06	LATEX SEMI-GLOSS GREEN	A	6.87	10/10/2018	9.99
8	030414313	03	03	METRIC TOOL SET 3/8" DR	A	47.00	09/30/2018	59.98
9	030414283	03	03	METRIC SOCKET SET 11 PC	A	18.00	09/30/2018	25.98
10	030412553	03	03	6 PC OPEN END WRENCH SET	A	11.53	09/30/2018	15.98
11	030412753	03	03	6 PC BOX END WRENCH SET	A	12.50	09/30/2018	18.49
12	030412903	03	03	8 PC METRIC HEX KEYS	A	2.48	09/30/2018	3.49
13	034255003	03	03	PARKER PROPANE KIT (7PC)	U	8.40	03/30/2018	14.98
14	030364163	03	03	TAP & DIE SET 41 PIECES	A	49.60	03/30/2018	69.98
15	030321663	03	03	SCREW DRIVER 1/8 X 4 SL	A	0.73	03/30/2018	1.69
16	030321683	03	03	SCREW DRIVER 1/4 X 6 SL	A	1.47	03/30/2018	2.59
17	030322303	03	03	SCREW DRIVER NO.3 PHILL	A	1.22	03/30/2018	2.29
18	030324803	03	03	ARC JOINT PLIERS 6"	A	3.99	03/30/2018	4.69
19	030324883	03	03	ARC JOINT PLIERS 16"	A	9.40	03/30/2018	14.98
20	030030323	03	03	LONG NOSE PLIERS 7"	A	5.00	05/10/2018	6.98
21	030934423	03	04	DIAGONAL CUTTING PLIERS	A	4.98	05/10/2018	7.79
22	030303413	03	03	8 OZ BALL PEIN HAMMER	A	3.90	08/10/2018	4.69
23	030303403	03	03	12 OZ BALL PEIN HAMMER	A	4.12	08/10/2018	5.29
24	030303343	03	03	STRAIGHT CLAW HAMMER	A	8.83	08/10/2018	12.98
25	130305603	13	03	#4 SMOOTH PLANE	A	14.12	10/12/2018	22.98
26	030309373	03	03	HEAVY DUTY BRACE	A	10.12	10/12/2018	16.98
27	030302903	03	03	4 PC CHISEL SET	A	10.12	10/12/2018	16.98
28	030302303	03	03	MITRE BOX 21"	A	41.23	10/12/2018	54.95
29	093788411	09	04	1" GARDEN HOSE	A	1.40	09/30/2018	3.98
30	090506331	09	04	5 PIECE GARDEN TOOL SET	A	-6.80	08/10/2018	10.98
31	090501541	09	04	24" LEAF RAKE	A	3.00	08/10/2018	5.99
32	090501551	09	04	20" LEAF RAKE	A	1.83	08/10/2018	2.99
33	090501051	09	04	11" SPADING FORK	A	4.82	08/10/2018	9.99
34	090504061	09	04	54" EDGING TURF	A	1.37	08/10/2018	2.49

- Left-click then right-click the cell in the table that you want to apply the filter.
- From the shortcut menu, choose Quick Filter, then left-click on the logical operator you want to choose for your filter. The logical operator options are below:

### Date field operators

- On
- Not On
- After
- On or After
- Before
- On or Before

### Numeric and Character field operators

- Equal
- Not Equal
- Greater Than
- Greater Than or Equal To
- Less Than
- Less Than or Equal To

## Command Results

The results will be the same as a filter that has been built with the Expression Builder. An example follows.

Sample\_Project x Inventory x




Unit\_Cost > 40

	Product_Number	Product_Class	Location	Product_Description	Product_Status	Unit_Cost
8	030414313	03	03	METRIC TOOL SET 3/8" DR	A	47.00
14	030364163	03	03	TAP & DIE SET 41 PIECES	A	49.60
28	030302303	03	03	MITRE BOX 21"	A	41.23
43	090584072	09	04	22" SELF-PROPELLED MOW	A	173.80
44	090585322	09	04	18" REEL MOWER	A	137.80
48	090081001	09	04	SUPER CALLUM LEAF MULCH	A	155.80
70	052720305	05	05	1X8 SHIPLAP PER MFBM	A	41.00
71	052720615	05	05	2X4 RANDOM PER MFBM	A	41.00
97	080935428	08	02	DUAL LEVER FAUCET -SPRAY	A	44.24
98	080435438	08	02	DUAL LEVER FAUCET-NO-SPR	A	40.24
134	060217066	06	02	ALUMINUM DOOR	A	87.40
136	040220074	04	03	3/8" COMPACT DRILL PRESS	A	62.00
140	040243224	04	03	2 SP ROTARY SANDER	A	52.80
141	040232194	04	03	12 SP AUTO SCROLLER SAW	A	59.60
152	040270324	04	03	RADIAL ARM SAW 10" HD	A	381.20

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You can extract or save the information in the same way as for a filter. You can also go directly to the filter in the Expression Builder by clicking on the Edit View Filter button (fx), or you can return to the unfiltered table by clicking the Remove Filter button (x).

Finally, a quick filter can be applied to table data that has already been filtered. To add a quick filter to an existing filtered table, do the following:

-  Left-click then right-click a cell in the table.
-  From the shortcut menu, choose Quick Filter, then click on the operator AND or OR.
-  Left-click on the logical operator you want to choose for your quick filter.

## Command Filters

### Used For

To filter data within an ACL command to restrict which records in a table are analyzed with the command.

### When Used


Used extensively to apply ACL commands to certain records in a table.

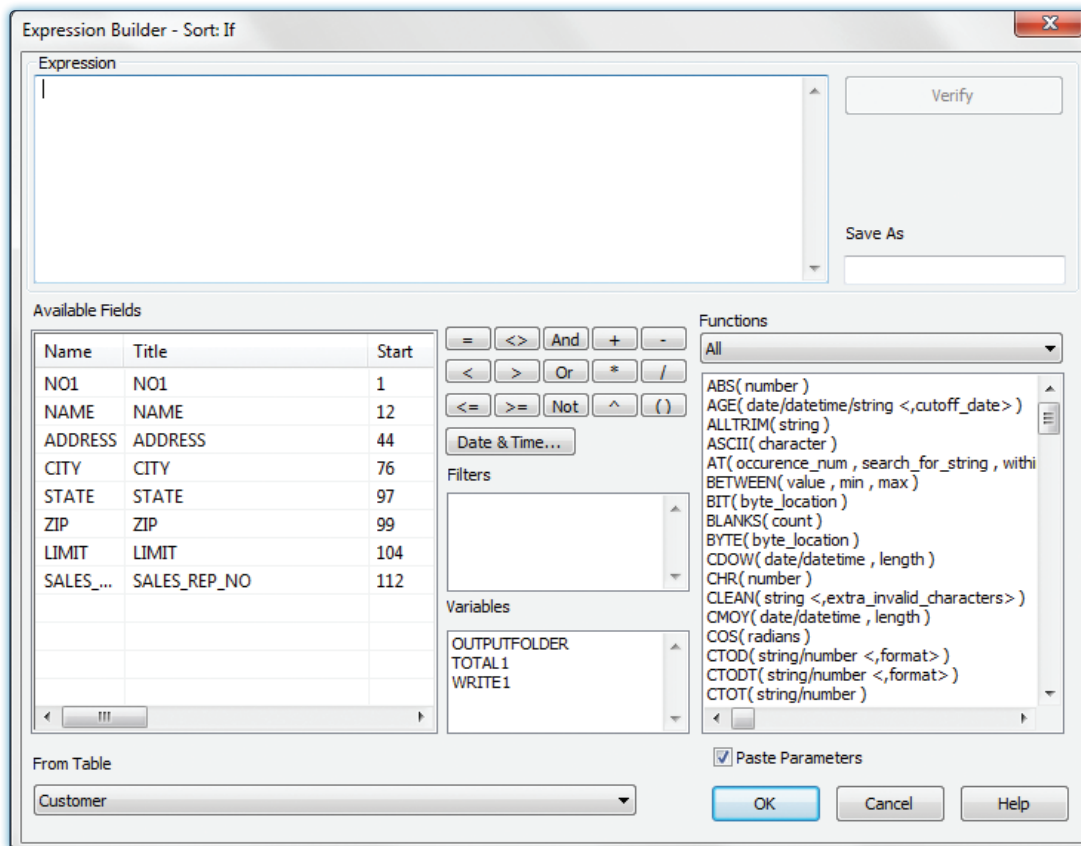
### Examples

- Determine the total customer balances outstanding greater than 90 days.
- Determine the average gross pay of employees in a specific work department.

## Steps

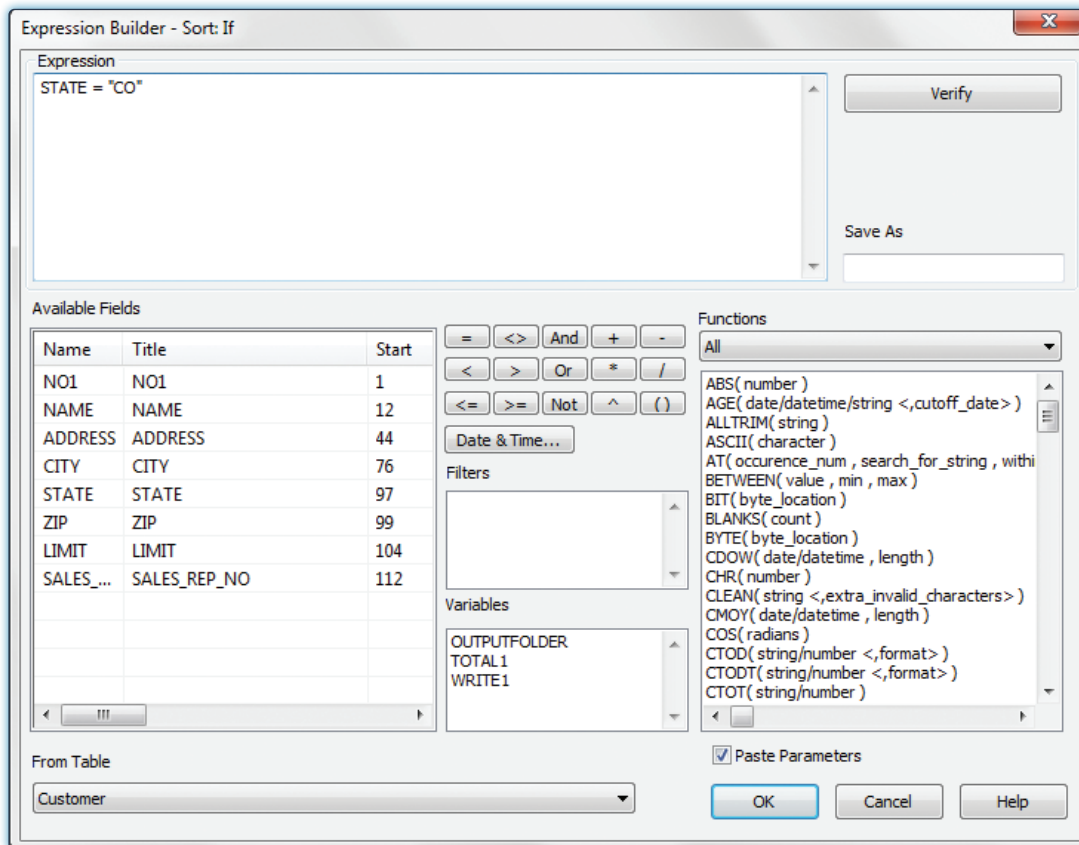
You first initiate the ACL command that you want to run on certain items in an ACL table. You then use a command filter to restrict the application of the chosen command to records that meet the filter criteria.

- ■ ■  Open the table you plan to build a command filter for if it is not already open.
  - ■ ■ Start the process of running an ACL command, such as the Count, Total, or Sort command.
  - ■ ■ Select the field(s) on which you want to run the ACL command.
  - ■ ■ Click the If button to open an Expression Builder window for the chosen ACL command.
- An example of the Expression Builder window for the Sort command follows.



- ■ ■ In the Available Fields portion of the dialog box, double-click on the name of the field for which you are building a filter.
- ■ ■ Use the operator buttons (=, +, <, >, etc.) and the numeric keypad on the keyboard to build the filter.
- ■ ■ Enter the appropriate string or value after the operator, using the same guidelines described in the Global Filters section.

After you have completed the expression, it should appear in the Expression box in a format similar to the following. Note that this illustration is for the Sort command and your window will look different if you are starting with a different ACL command (Total, Count, Statistics, for example).



- Click OK to complete the filter and return to the ACL command window.
- Complete the steps for the ACL command you are performing. The command will now be performed on the filtered data, using the condition(s) in the command filter you created.