

# Computed Fields

(Numeric, Character, and Date Fields)

## Used For

To ask questions of data in a table by adding a new field. The new field is typically derived from calculations on other fields in the table, usually numeric fields.



## When Used

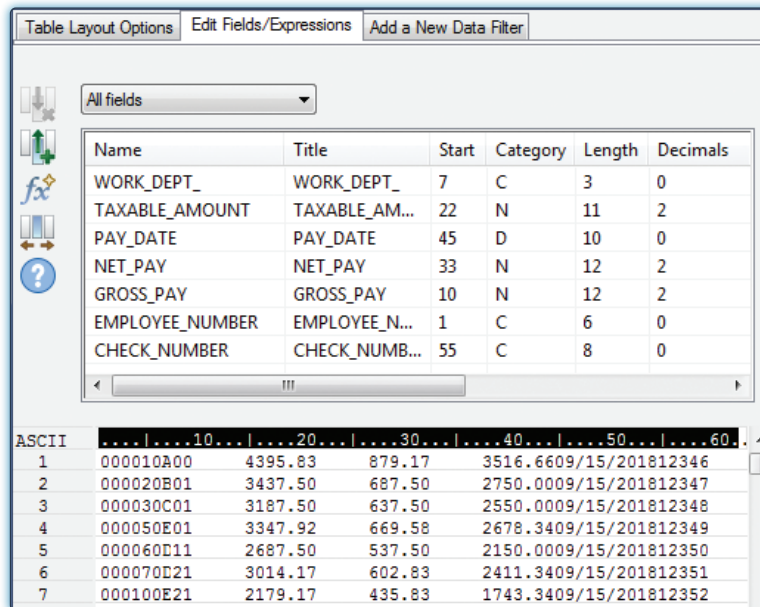
When the auditor wants to perform calculations based on information in a table. The auditor can add a computed field to a table view even though it is not included in the client's data file.


## Examples

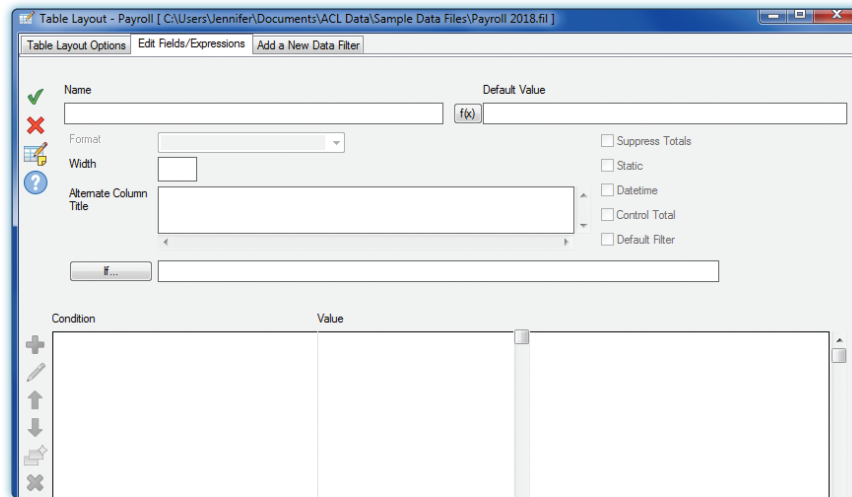
- Add a field of recalculated net pay in a payroll transaction file table based on gross pay and withheld amounts. Compare the computed field with the net pay field in the table to isolate differences.
- Add a field of recalculated inventory value at cost to a year-end inventory table based on units on hand and cost per unit. Compare the computed field with the existing total cost field.

## Steps


-  Open a table in which you want to add a computed field.
-  Click **Edit** → **Table Layout**. The following window appears.

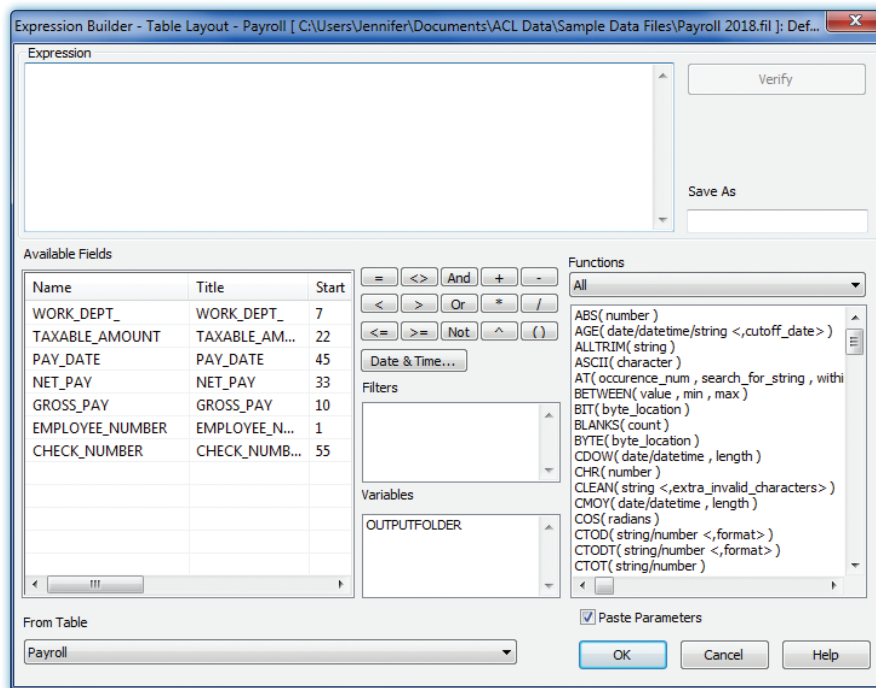


Click the Add a New Expression button , which is the third button down on the left side of the window. The following window opens.



Add a name for the computed field in the Name box. Also add a column title in the Alternative Column Title box. Use names for both that are consistent in style with those already in the Table Layout. When you add the computed field to a table view in the future, the name in the Alternative Column Title box is included in the table.

Click the Expression button , which is located to the right of the Name box. The following Expression window appears.



## COMPUTED FIELDS

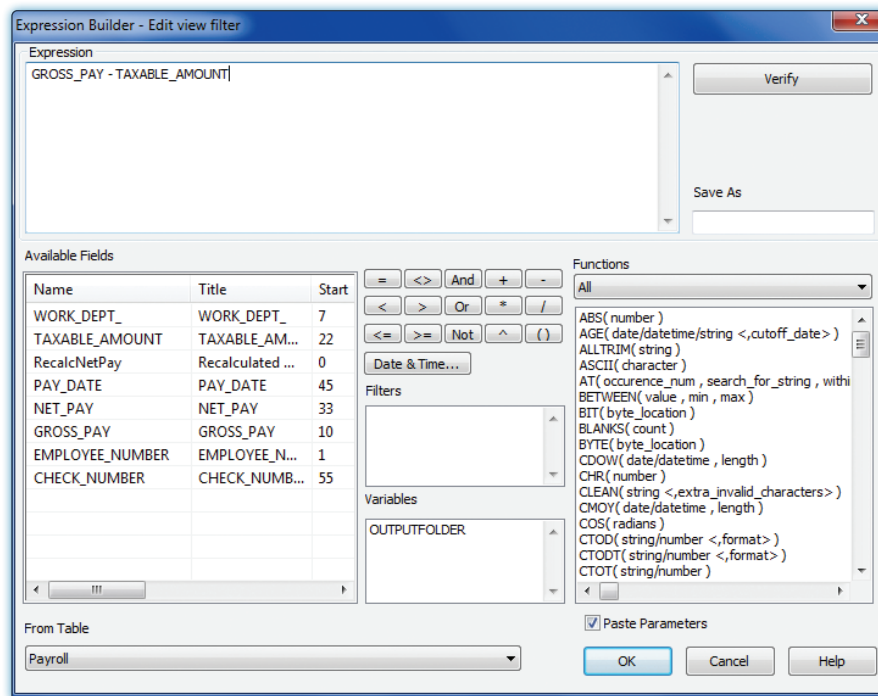
The Expression box is where you build expressions using the available fields in the dialog box, as well as the operators (=, <>, AND, etc.). There are three components to an expression: (1) field, (2) operator and (3) a numeric value, character value, or date.

- ■ ■ *In the Available Fields portion of the dialog box, double-click the name of the field for which you are building an expression. 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 expression.*
- ■ ■ *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.



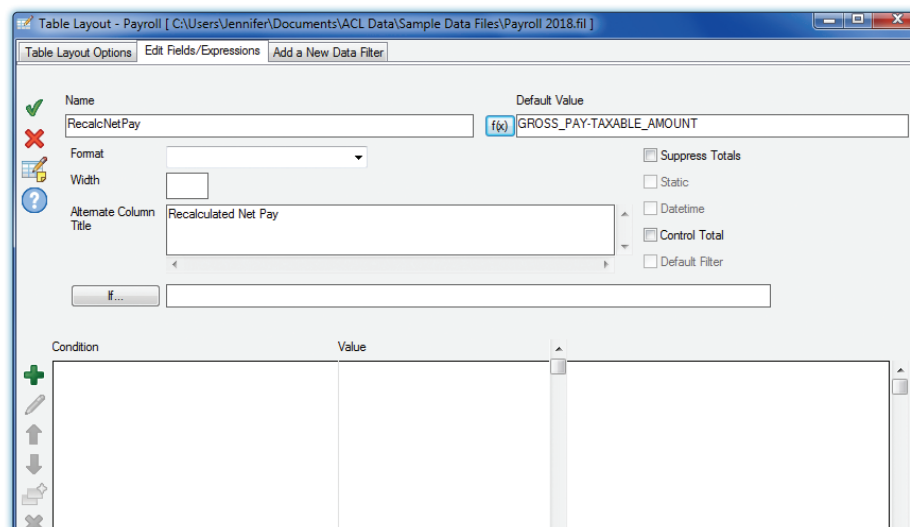
- To select a month, click the right arrow to advance the month, or the left arrow to reverse the month.
- To select the day, click the appropriate day in the calendar.
- To select the year, click the year in the calendar and scroll to the appropriate year.
- Click OK to add the date to the Expression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

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



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

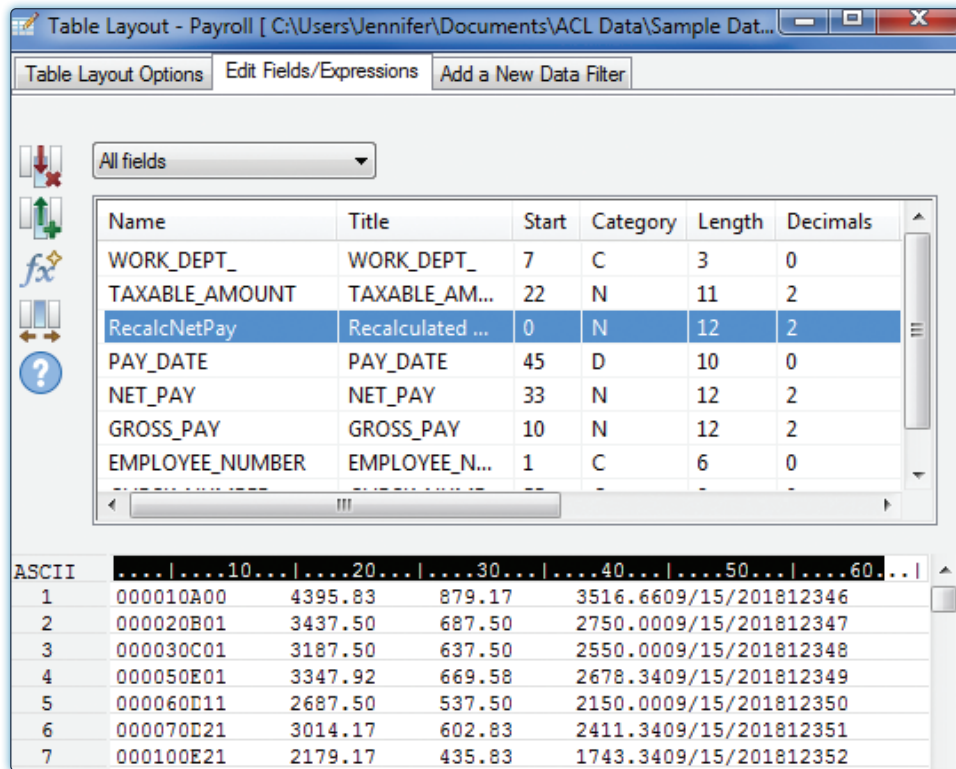
- After building the expression, click OK to return to the previous window. Following is an example of a completed window for a computed field.



- Click the Accept Entry button to save the new computed field.

## Command Result

The new computed field is added to the list of other fields in the Table Layout window but it has not been added to the table view. See RecalcNetPay in the Table Layout window below.



The new field can be added to the table view by completing the following steps.

- ■ ■ Close the Edit Fields/Expressions window if it is still open.
- ■ ■ Right-click the column heading to the right of where you want the new computed field to appear in the table view. Note: Be sure to click the column heading and not just a cell in the table. If you do this correctly, the entire column is highlighted.
- ■ ■ Click Add Columns from the drop-down menu.
- ■ ■ Double-click on the name of the new computed field you just created.
- ■ ■ Click OK. The new computed field should now appear in the table view.
- ■ ■ If you wish to move the new column, left-click and hold the column heading and drag it to the desired location.

Note: You do not need to add the new computed field to the view to run commands on that field.