How to Use Custom Formulas in Pulse Dashboard

Pulse Dashboard has many fields available from the Macola database that can be used to create custom reports in Pulse Dashboard and many additional fields not available from Macola that have be calculated and added to the available fields by Leahy Consulting. Each report in Pulse Dashboard has been designed to have available the fields most often needed by companies to monitor their activity on that report. While most needed fields have been added, at times there may be a field that is not available on a report to augment the information already available on a report. If by adding available fields together or adding a set percentage to an existing field to create a new field, the report may give additional insight into the workings of the company that are unique to the operation.

Adding Custom Formula fields to a report is possible in the Column Chooser for the area of a report where a new column is needed. If a report with a Custom Formula field is shared with another User, the new field will "travel" with the report but will not be available on other reports for the other User. If a shared report with a Custom Formula field is copied to create a new report, the Custom Formula field will be available on the new report. A Custom Formula field is associated with the particular instance of the report and does not transfer to other reports. Custom Formulas, once added to a report, may also be used in additional formulas on the report if needed.

In the example below an Inventory Stock Status has been used to show the same report with default columns. A new Custom Formula will be used to create a new column that may be used on the report.

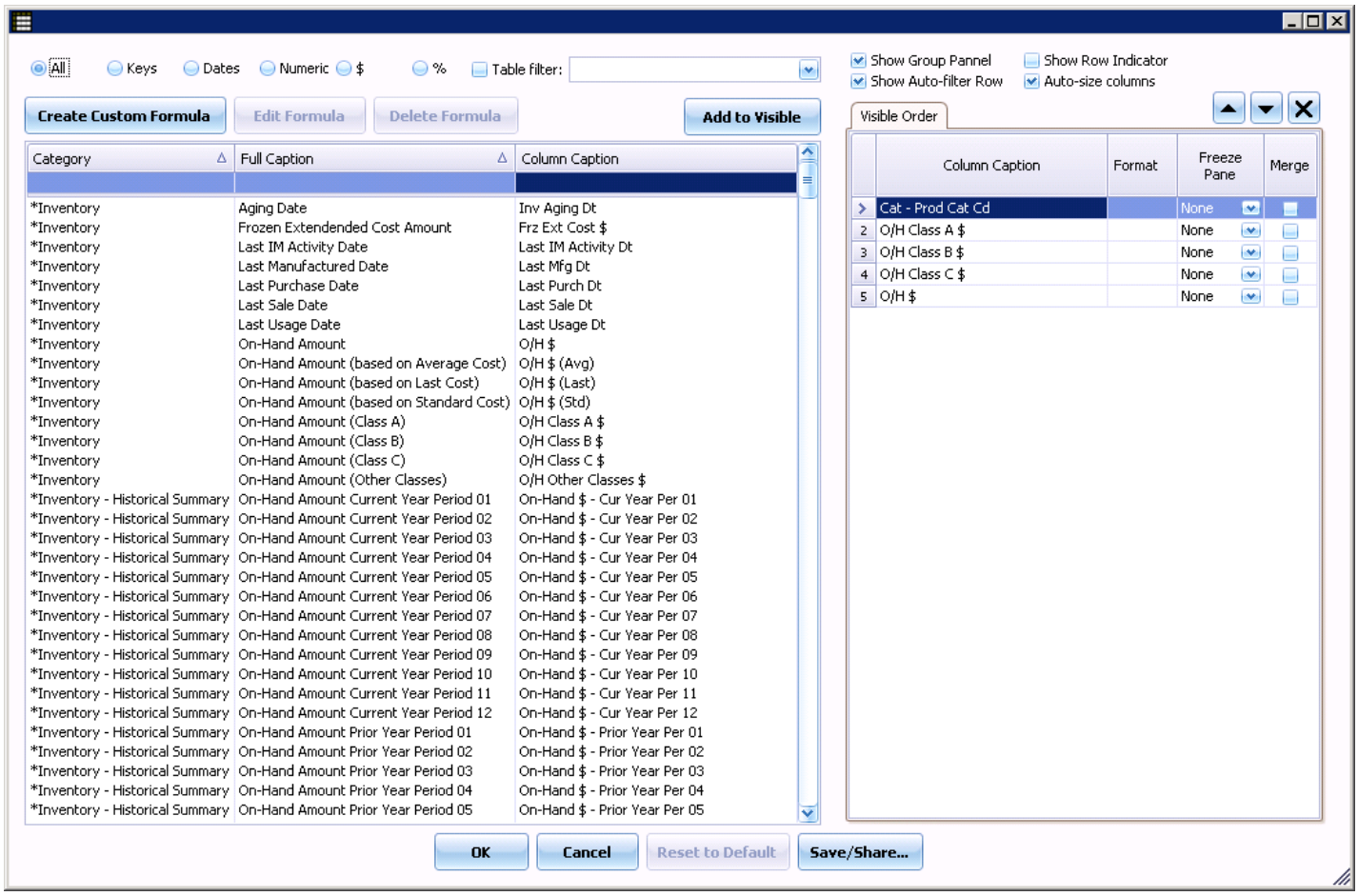
Standard Report:

Stock Status

Drag a column header here to group by that column

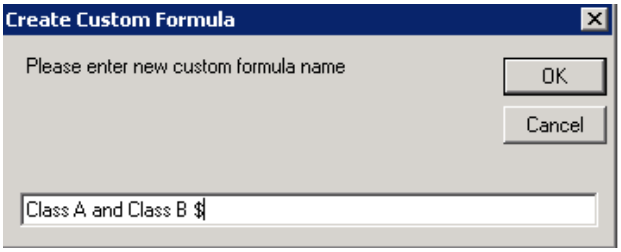
Cat - Prod Cat Cd	O/H Class A $	O/H Class B $	O/H Class C $	O/H $
SP	$3,342,465	$97	$9,203	$3,351,765
ASM	$2,523,619	$0	$0	$2,523,619
MB	$2,237,660	$0	$0	$2,237,660
UB	$2,111,520	$0	$0	$2,111,520
	$14,381,725	$97	$11,393	$14,393,215

Column Chooser:

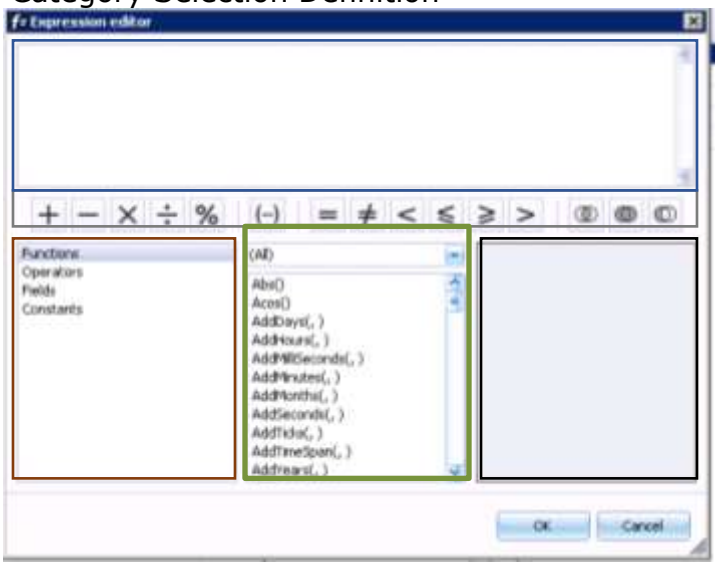


Creating a new Custom Formula Column:

1. Select Create Custom Formula
    a. This window will allow for a New Column Name to be entered

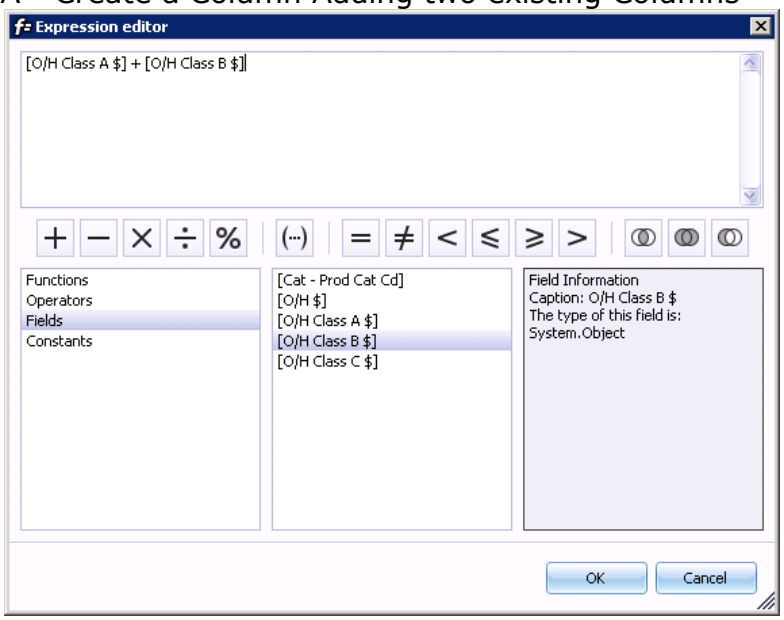


    b. The Expression Editor window will open and is segmented into
        i. Expression area where the formula will be created
        ii. Basic Operator Icons and Listing of All Operators
        iii. Categories
        iv. Detailed Category Selection Definition

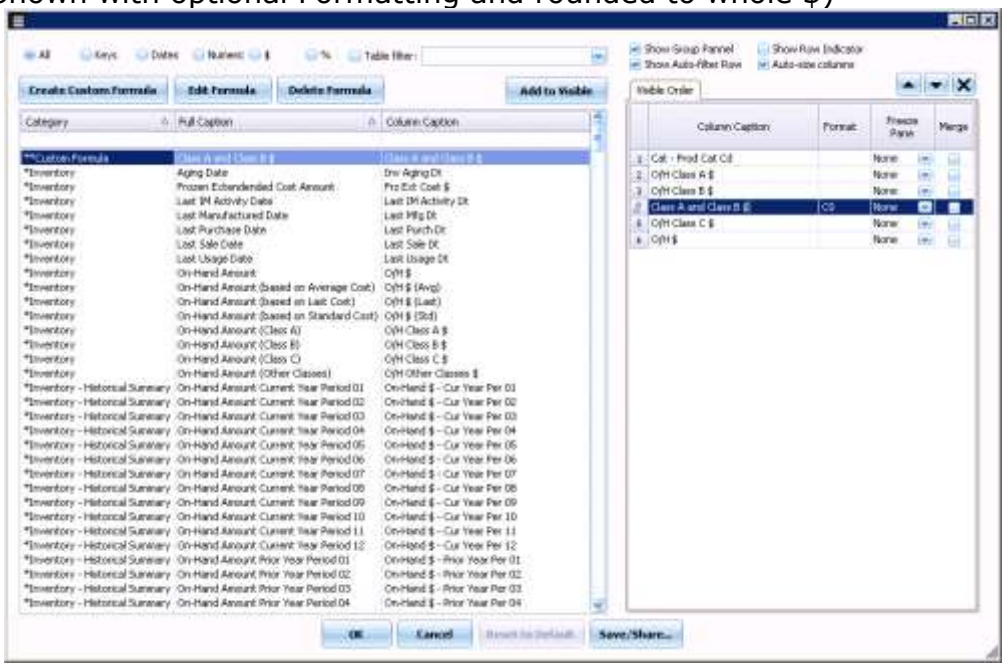


Advanced Mathematical Functions	Mathematical Operators	Fields Currently on the Report	Constants
(All) Abs() Acos() AddDays(,) AddHours(,) AddMilliSeconds(,) AddMinutes(,) AddMonths(,) AddSeconds(,) AddTicks(,) AddTimeSpan(,) AddYears(,)	^ == != < <= >= > In Like Between And Or Not	[Cat - Prod Cat Cd] [O/H $] [O/H Class A $] [O/H Class B $] [O/H Class C $]	True False ?

c. Example A - Create a Column Adding two existing Columns



(Shown with optional Formatting and rounded to whole $)



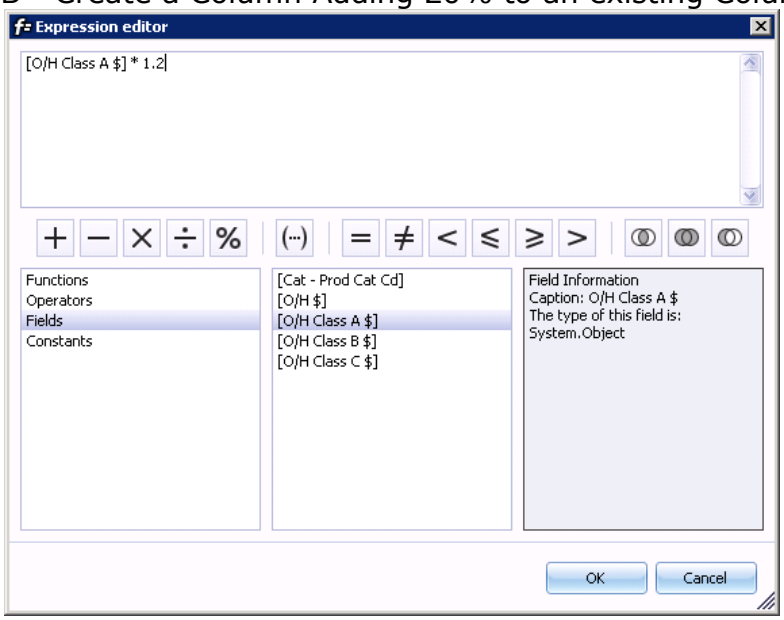
(Shown with optional Total added)

Stock Status

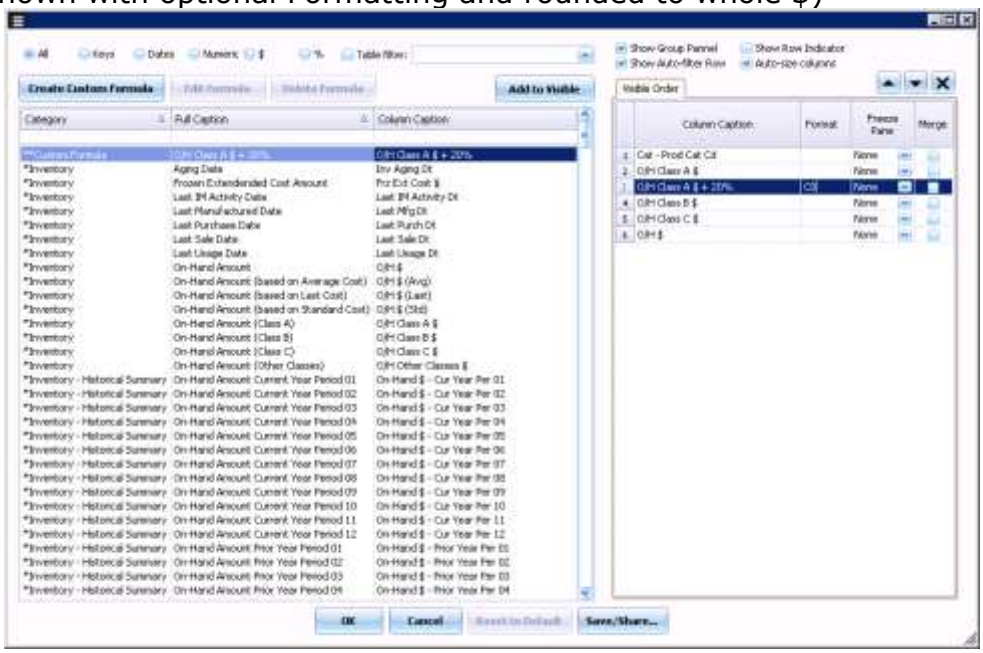
Drag a column header here to group by that column

Cat - Prod Cat Cd	O/H Class A $	O/H Class B $	Class A and Class B $	O/H Class C $	O/H $
SP	$3,342,465	$97	$3,342,563	$9,203	$3,351,765
ASM	$2,523,619	$0	$2,523,619	$0	$2,523,619
MB	$2,237,660	$0	$2,237,660	$0	$2,237,660
UB	$2,111,520	$0	$2,111,520	$0	$2,111,520
	$14,381,725	$97	SUM=$14,381,822	$11,393	$14,393,215

d. Example B - Create a Column Adding 20% to an existing Column



(Shown with optional Formatting and rounded to whole $)



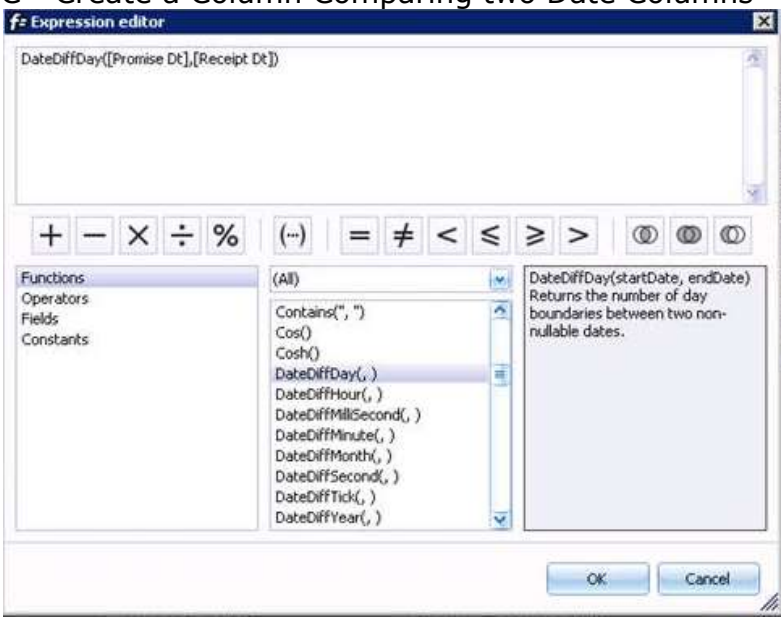
(Shown with optional Total added)

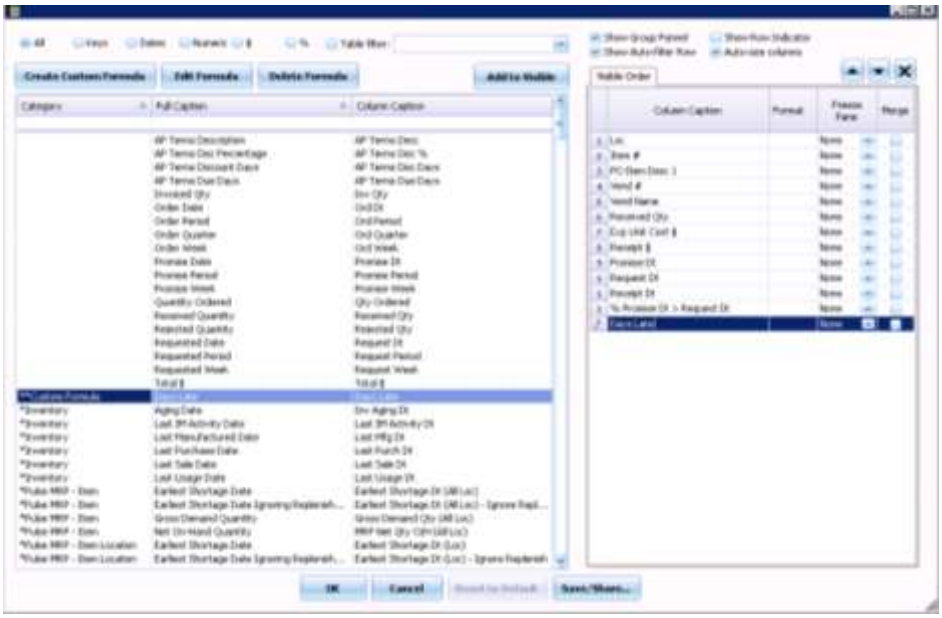
Stock Status

Drag a column header here to group by that column

Cat - Prod Cat Cd	O/H Class A $	O/H Class A $ + 20%	O/H Class B $	O/H Class C $	O/H $
SP	$3,342,465	$4,010,958	$97	$9,203	$3,351,765
ASM	$2,523,619	$3,028,343	$0	$0	$2,523,619
MB	$2,237,660	$2,685,192	$0	$0	$2,237,660
UB	$2,111,520	$2,533,824	$0	$0	$2,111,520
	$14,381,725	SUM=$17,258,070	$97	$11,393	$14,393,215

e. Example C - Create a Column Comparing two Date Columns





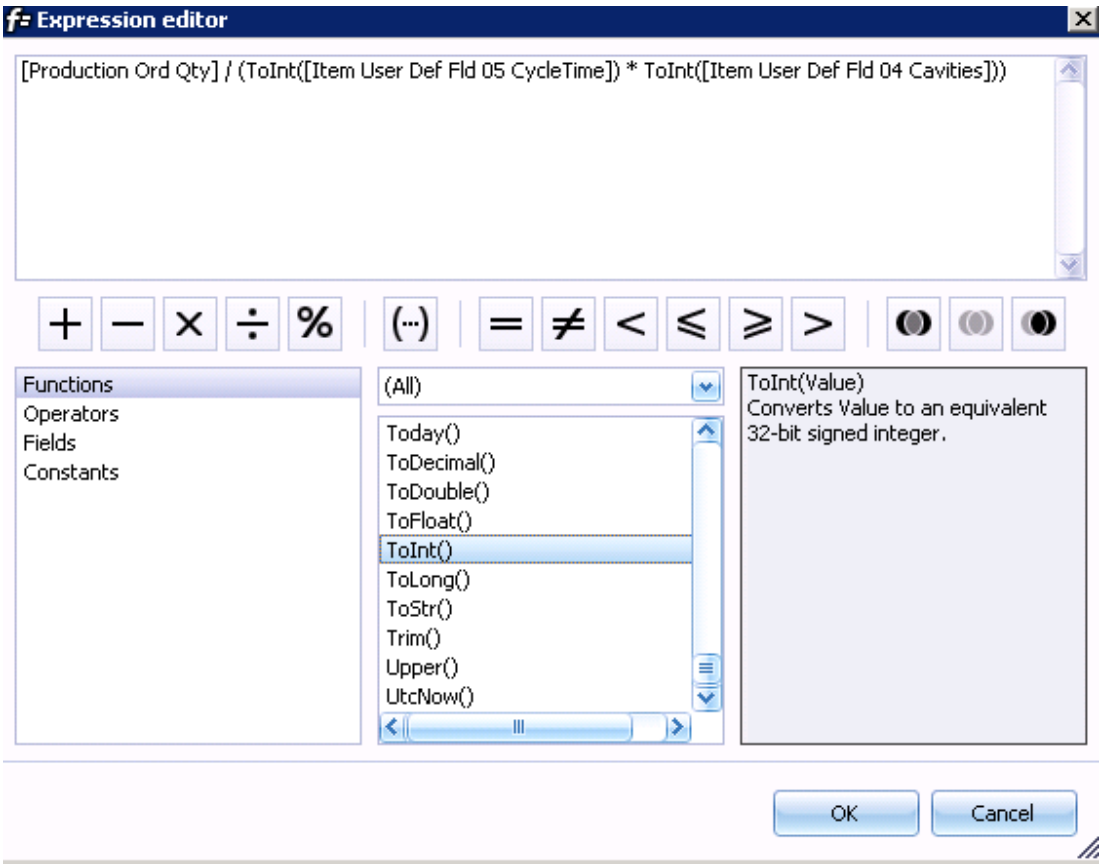
How To Use Custom Formulas to Convert Alphanumeric Values to Numeric

Many Macola tables have User Defined (or similar) fields in them that are stored in the database as alphanumeric character fields and not as numeric values that sometimes are used to store numbers. These "numeric" values sometimes are needed in calculations within Pulse Dashboard and alphanumeric values cannot be used in numeric formulas to add, subtract, multiply etc.

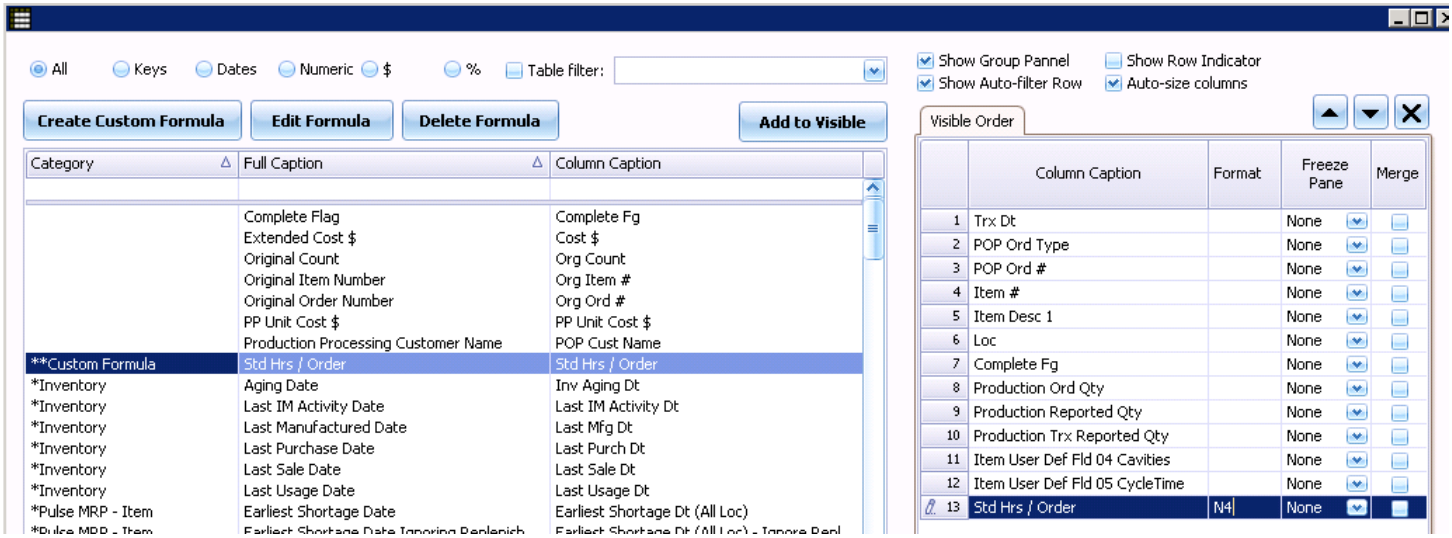
Creating a Custom Formula in the Pulse Dashboard Column Chooser it is possible to convert these alphanumeric "numbers" stored in the User Defined fields to numeric values in order to use them in arithmetic calculations.

In this example, (using the Reported Production Report) the Item User Defined Field 04 and Item User Defined Field 05 from the Item Master File are used to store "numbers" although these fields are defined as alphanumeric in the database. Numeric values are stored in these 30-character fields and will be used to multiply the two values then divide another value by the product of the User Defined 4 and 5 fields.

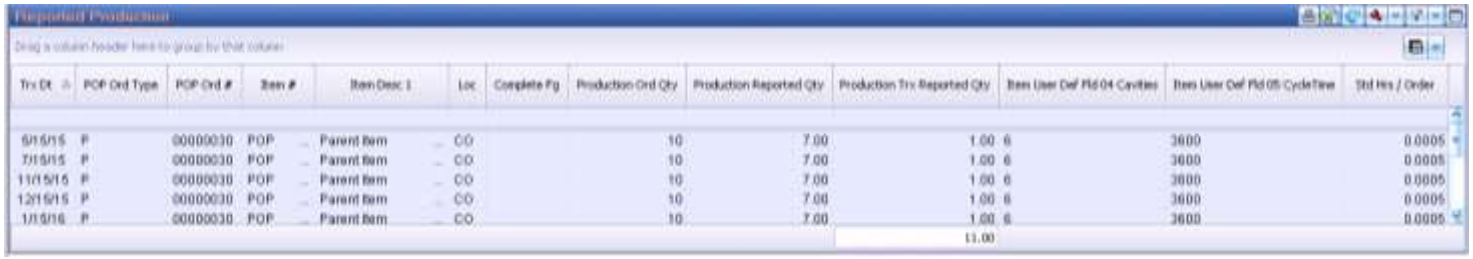
1. In the Column Chooser add the Item User Def Fld 04 and Item User Def Fld 05 to the report.
2. Create a Custom Formula and name it Std/Hrs Order.
3. Add the formula shown below where the Production Order Qty is divided by the product of UDF4 x UDF5 after they were converted to Integers.



4. Add the new Column to the report.
5. To show the new value as a 4-place decimal on the report use the Format setting in the Column Chooser to show the value as (N)umeric followed by the number of decimal places (4) – N4 in this case.



Finished Report



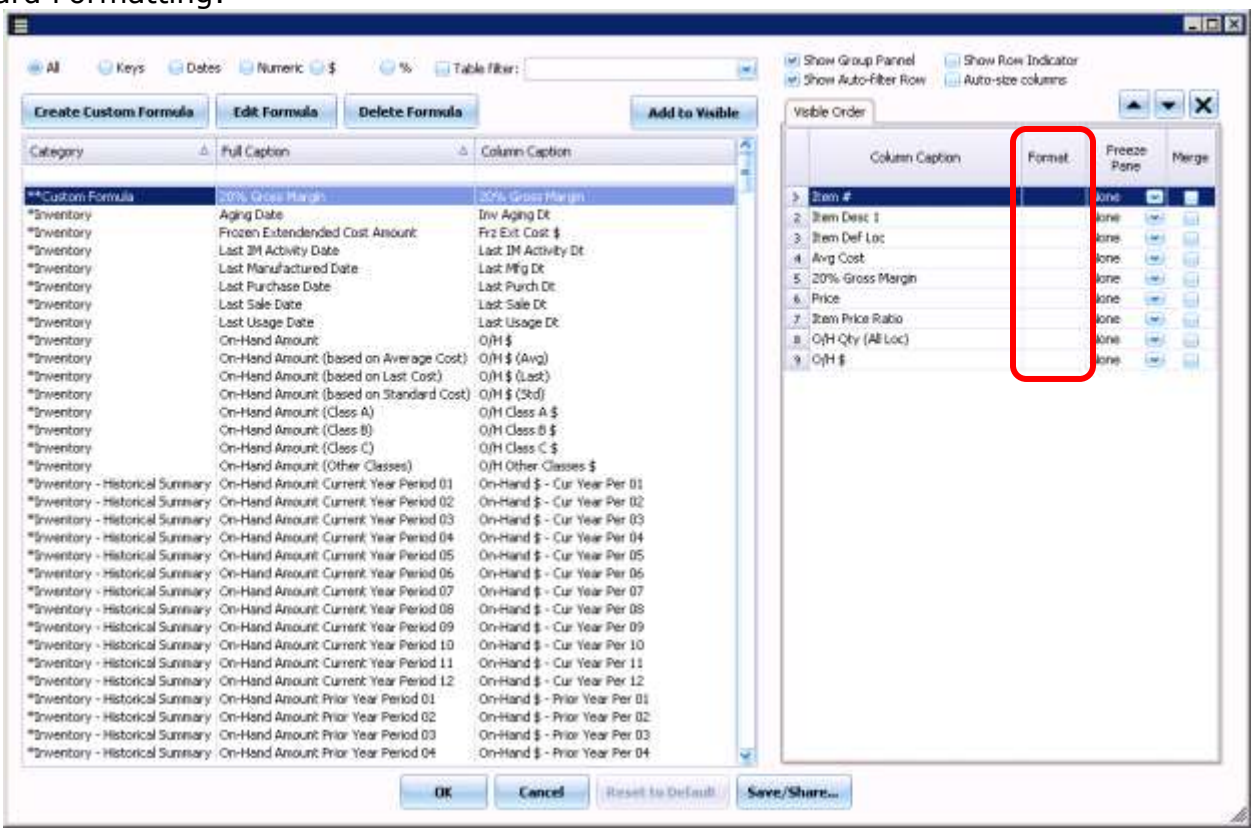
How to Use the Format Option in Pulse Dashboard

Numeric columns in Pulse Dashboard can be formatted to include the number of decimal places shown, percent signs and currency values. This can be for existing fields listed in the Column Chooser or new fields created by defined using a custom formula. This can be setup by any User in Pulse Dashboard.

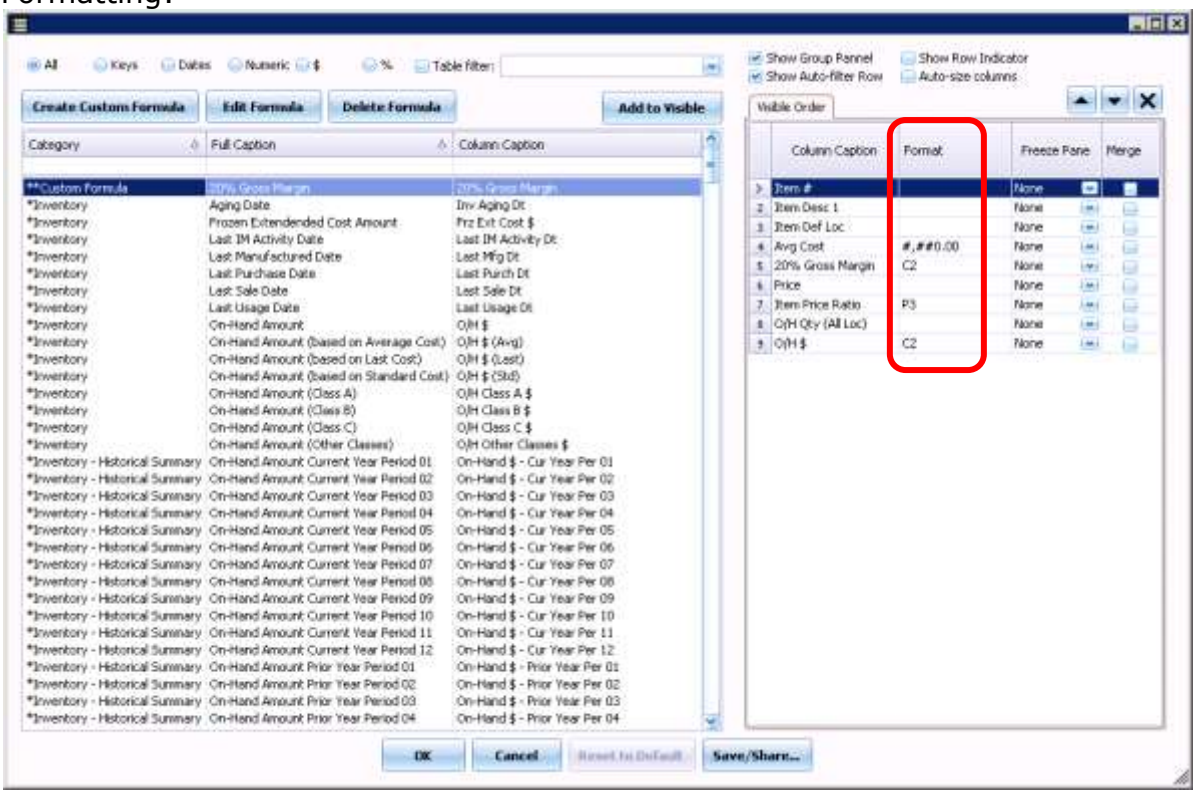
In the Column Chooser any numeric or currency value field may be displayed as a currency value, a numeric value or as a percentage. Each of these may also be formatted to use the maximum decimal places as defined by Macola in the database.

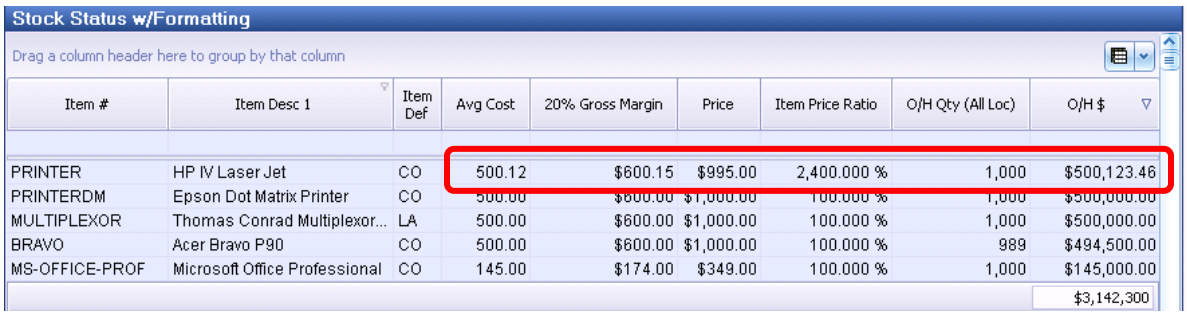
In the examples below an Inventory Stock Status has been used to show the same report with standard formatting and with custom formatting. Values entered in the Format column in the Column Chooser control the display of the values on the report for that column.

Standard Formatting:



Custom Formatting:





Accepted Example Values for use in the Format Column of the Column Chooser:

Format Type	Decimal Precision	Format Entry Value	Example Data Value	Example Displayed Value
Currency	0	C0	512.1	$512
	1	C1	512.1	$512.1
	2	C2	512.1	$512.10
Numeric	0	N0 (or #,##0)	512.1	512
	1	N1 (or #,##0.0)	512.1	512.1
	2	N2 (or #,##0.00)	512.1	512.10
Percentage	0	P0	0.25	25%
	1	P1	0.25	25.0%
	2	P2	0.25	25.00%

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