OrgPublisher Formulas

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Formulas

Formula fields allow you to define and populate a new custom field based on values provided in other fields or by using other criteria. Examples of possible formula fields can be years of employment, days until an appraisal is due, percentage of sales quota met, or new salary based on a percentage increase. Effective with OrgPublisher Premier 11.8, and later, formulas can be used to display the manager name of employees who are part of a multiple reporting structure.

OrgPublisher supports formula fields by using the Microsoft Windows Script Host to process VBScript. Formula fields contain a VBScript function that references values in custom fields.

Formula Processing

Formulas are processed when you open a chart or close the Custom Field Properties dialog. Limitations include:

- Formulas are only processed by the OrgPublisher application or Web Administration

- Formulas are processed when opening a chart or closing the Custom Field Properties dialog; they do not refresh in response to a data edit or structure change

- Formulas are not processed in planning charts

- Formulas are not reprocessed once a chart is published (via PluginX or EChart)

Performance Considerations

A fast computer can process about 5000 formula calculations per second. This means that a chart with 100K records takes about 20 seconds to process for each formula field displayed in the chart

Inserting a Formula

1. Open the Custom Field Properties dialog.

2. **Insert** a new custom field at the end of the list.

3. Type the **Field label** you want to use, the data **Type**, such as numeric or text, and then click **Formula**.
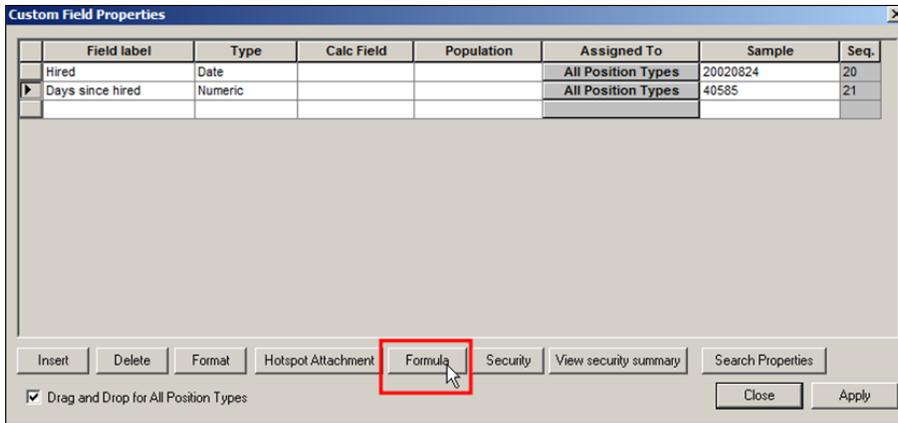
Figure 1.

4. Type the formula directly into the dialog or copy and paste it from a text file.

Figure 2.

5. Click **Test formula on all records**. If the formula works as expected, a "no errors" message appears.
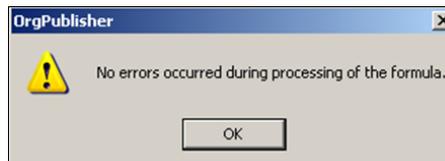
Figure 3.

If errors are found, modify the formula until it works successfully.

Formula Syntax

Formulas are VBScript with text substitution tags. Fields are referenced by putting a dollar sign (**$**) before and after the field name. For example, **$Salary$** references a custom field named Salary.

Sample scripts in the following section are in red.

Concatenation Description and Sample Script.

The highlighted formula field shows the concatenation, or merging, of the data from two fields into one field. A comma (text string) separates the data from the two fields.

Example: You want to show the Gender and Ethnicity fields as one field.

Gender, Ethnicity = F, Caucasian

Return = "$Gender$" + "," + "$Ethnicity$"

Figure 4.

Calculation with Fixed Variable Description and Sample Script

Any numeric field can be used to calculate a new result with a fixed variable.

Example: The salary field for all employees is increased by 5%. The displayed field shows the new salary with the increase.

CurrentSalary * 1.05 to show 5% increase

Sample Script: Salary + 5% Increase

Return = 0 ' Set to Zero if Salary field is non numeric or blank

If IsNumeric ("$Salary$") then

Return = "$Salary$" * 1.05

End If

Figure 5.

If, Then, Else Result Description and Sample Script

The example analyzes a field of data. A 0 (zero) is returned if the field contains no value. If the field contains a value, then a calculation is performed and a result returned.

Example: If there is no hire date, then return 0 for days since hired. If there is a hire date (Else), then calculate the number of days since the person was hired.

Sample Script: Days since hired

If "$Hired$" = "" then

Return = 0

Else

sYear = Mid("$Hired$", 1, 4)

sMonth = Mid("$Hired$", 5, 2)

sDay = Mid("$Hired$", 7, 2)

sDate = sDay + "/" + sMonth + "/" + sYear

stDate – Cdate(sDate)

return = DateDiff("d", dtDate, Now)

End If
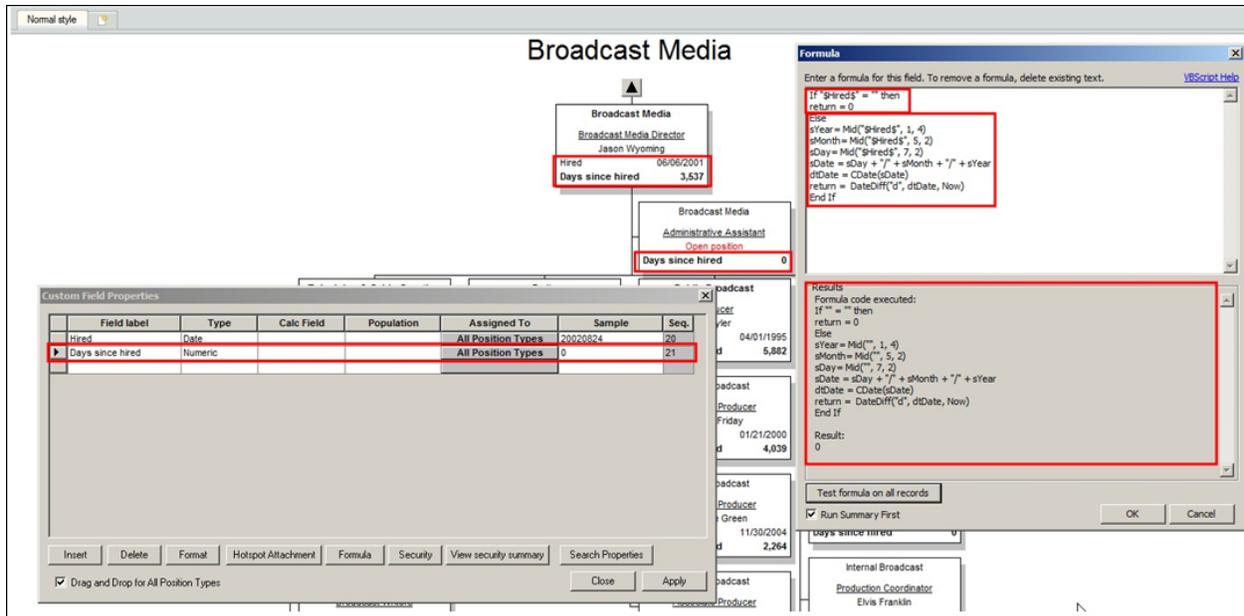
Figure 6.

Calculations - Difference Description and Sample Script

The outlined field in the chart box shows the variance between goal (Budget) and Actual.

Example: The difference is calculated using subtraction: goal – Actual values.

return = 0 ' Set to Zero if Mgmt Headcount and Hourly Headcount fields are non numeric or blank

If IsNumeric ($Total Salary$)and IsNumeric ("$Salary Goal (Box)$") then

return = CDbl($Salary Goal (Box)$) – CDbl($Total Salary$)

End If

Figure 7.