

**OTBI : How to turn a measure
column into a PTD, YTD or ITD
dynamically**

This example is based on the subject area : **Project Billing – Revenue Real Time** but it applies to any other subject area

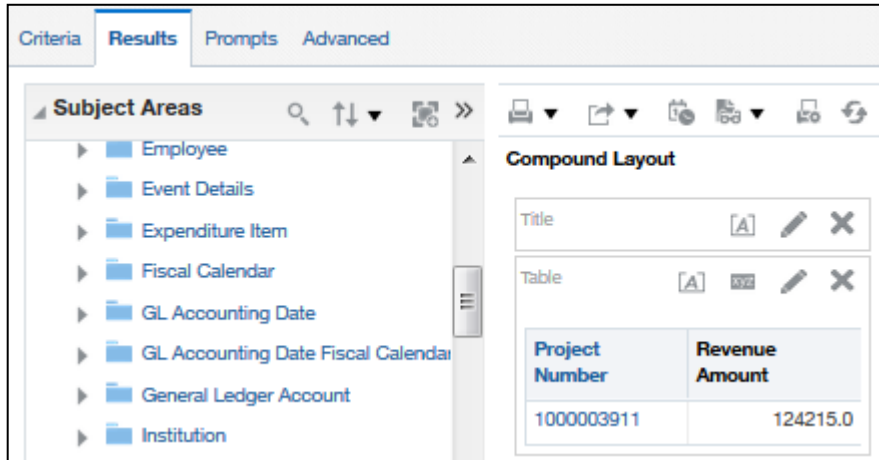
ex : create a new analysis and drop **project number** and **revenue amount** to the selected column area. Also add a filter to one only project number value

The screenshot displays a software interface with the following components:

- Criteria** tab selected, with sub-tabs: Results, Prompts, Advanced.
- Subject Areas** pane on the left, showing a tree structure under "Project Billing - Revenue Real Time":
 - Accounting Class
 - Award
 - Balancing Segment
 - Contract Customer
 - Contract Customer Account
 - Contract and Project Details
 - Cost Center
 - Currency Exchange Details
 - Customer Segment
 - Employee
 - Event Details
 - Expenditure Item
- Selected Columns** pane on the right, containing:
 - Project (with a gear icon)
 - Revenue Transaction Measures (with a gear icon)
 - Project Number (with a gear icon)
 - Revenue Amount (with a gear icon)
- Filters** pane on the right, containing:
 - Project Number is equal to / is in 1000003531 (highlighted with a red box)
- Catalog** pane at the bottom left.

How data is displayed in OTBI ?

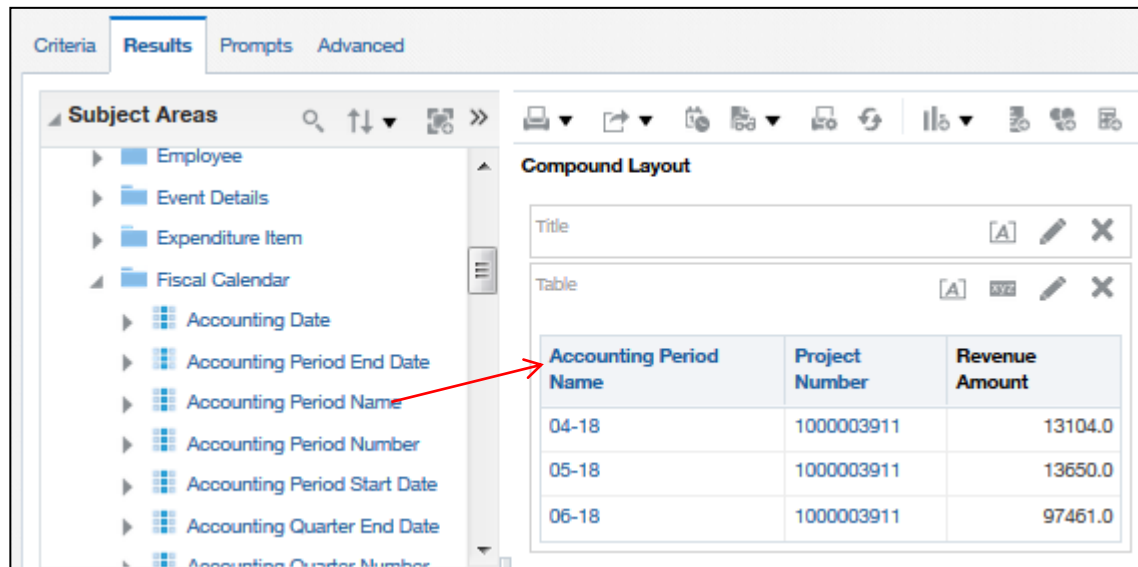
Now run the analysis and check the result



The screenshot shows the OTBI interface with the 'Results' tab selected. On the left, the 'Subject Areas' list includes Employee, Event Details, Expenditure Item, Fiscal Calendar, GL Accounting Date, GL Accounting Date Fiscal Calendar, General Ledger Account, and Institution. The 'Compound Layout' on the right contains a table with two columns: 'Project Number' and 'Revenue Amount'. The data row shows '1000003911' for Project Number and '124215.0' for Revenue Amount.

Project Number	Revenue Amount
1000003911	124215.0

by default we don't know what period the revenue amount is linked to, but...



The screenshot shows the OTBI interface with the 'Results' tab selected. The 'Subject Areas' list on the left now includes 'Accounting Date', 'Accounting Period End Date', 'Accounting Period Name', 'Accounting Period Number', 'Accounting Period Start Date', and 'Accounting Quarter End Date'. A red arrow points to 'Accounting Period Name' in the list. The 'Compound Layout' on the right now contains a table with three columns: 'Accounting Period Name', 'Project Number', and 'Revenue Amount'. The data rows show '04-18', '05-18', and '06-18' for Accounting Period Name, with corresponding Project Number '1000003911' and Revenue Amounts '13104.0', '13650.0', and '97461.0'.

Accounting Period Name	Project Number	Revenue Amount
04-18	1000003911	13104.0
05-18	1000003911	13650.0
06-18	1000003911	97461.0

...if we add the Accounting Period column, the analysis breaks the revenue amount per period

Different approach to get a PTD column ?

In order to have revenue displayed for a given period (also referenced as PTD amount) it's quite simple, we just need to add a filter based on the period.

But there is another way to do that : the logic consists in combining a prompt based on the accounting date (and not period) plus a formula applied to the revenue column itself

1. Let's start by adding a filter on Accounting Date

The screenshot displays a software interface for configuring analysis criteria. It features three main panes: 'Subject Areas', 'Selected Columns', and 'Filters'. The 'Subject Areas' pane on the left contains a tree view of categories such as 'Customer Segment', 'Employee', 'Event Details', 'Expenditure Item', 'Fiscal Calendar', 'GL Accounting Date', 'GL Accounting Date Fiscal Calenc', 'General Ledger Account', 'Institution', 'Intercompany and Interproject Del', 'Job', 'Ledger', 'Natural Account', and 'Organizations'. The 'Selected Columns' pane on the right shows a table with two columns: 'Project' and 'Revenue Transaction Measures'. Under 'Project', there is a 'Project Number' column with a gear icon. Under 'Revenue Transaction Measures', there is a 'Revenue Amount' column with a gear icon. The 'Filters' pane at the bottom shows a filter for 'Project Number is equal to / is in 1000003911' and a new filter for 'AND Accounting Date is prompted', which is highlighted with a red rectangular box.

Project	Revenue Transaction Measures
Project Number	Revenue Amount

Filters

Project Number is equal to / is in 1000003911

AND Accounting Date is prompted

Edit the prompt date

Criteria Results **Prompts** Advanced

Definition

Add prompts for users when they run this analysis.

Prompt Label	Type	Prompt For	Description	Required	New Column
Page 1	Page				
Accounting Date	Column value	Accounting Date			<input type="checkbox"/>

Edit Prompt:

Prompt For Column "Fiscal Calendar"."Accoun fx

Label Accounting Date

Custom Label

Description

Operator is less than or equal to

User Input Calendar

Options

Require user input

Default selection SQL Results

Enter a SQL statement to generate the list of values.

```
SELECT TIMESTAMPADD( SQL_TSI_DAY , -(1),  
TIMESTAMPADD( SQL_TSI_MONTH , 1, TIMESTAMPADD(  
SQL_TSI_DAY , DAYOFMONTH( CURRENT_DATE) * -(1) +  
1, CURRENT_DATE))) FROM "Project Billing - Revenue  
Real Time"."GL Accounting Date"
```

Change the operator

Use the SQL Default selection

```
SELECT TIMESTAMPADD( SQL_TSI_DAY , -(1),  
TIMESTAMPADD( SQL_TSI_MONTH , 1, TIMESTAMPADD(  
SQL_TSI_DAY , DAYOFMONTH( CURRENT_DATE) * -(1) +  
1, CURRENT_DATE))) FROM "Project Billing - Revenue  
Real Time"."GL Accounting Date"
```

Set a variable ▼

Also define this parameter as a presentation variable so that it can be re-used elsewhere, we will see that later

Display

Page 1:

Accounting Date <=

This way, the Accounting Date parameter will be defaulted with the last day of current month

NB : you can easily find multiple sources on the internet with predefined syntax with TIMESTAMP, here some sites I used : [ITB](#) or [OBIEE](#)

Let's try it

Analysis with PTD YTD ITD columns 2

Accounting Date <=

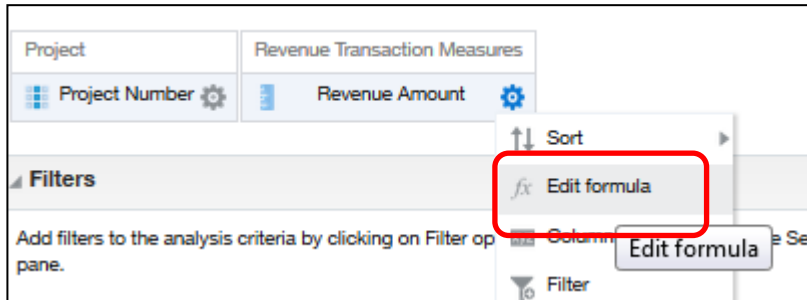
[Edit](#) - [Refresh](#) - [Copy](#)

Project Number	Revenue Amount
1000003911	94185.0

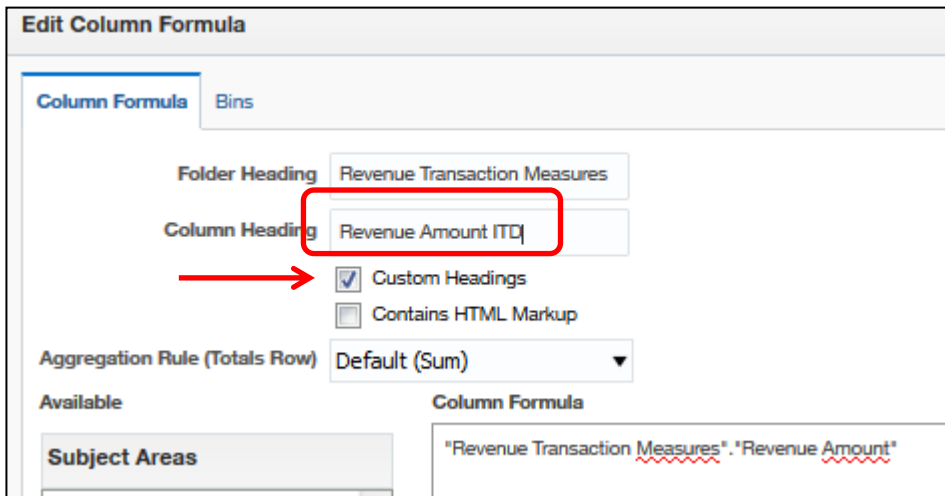
With this very basic approach we have answered the question how to turn a measure column into ITD

But to complete this step, we now need to change the column header

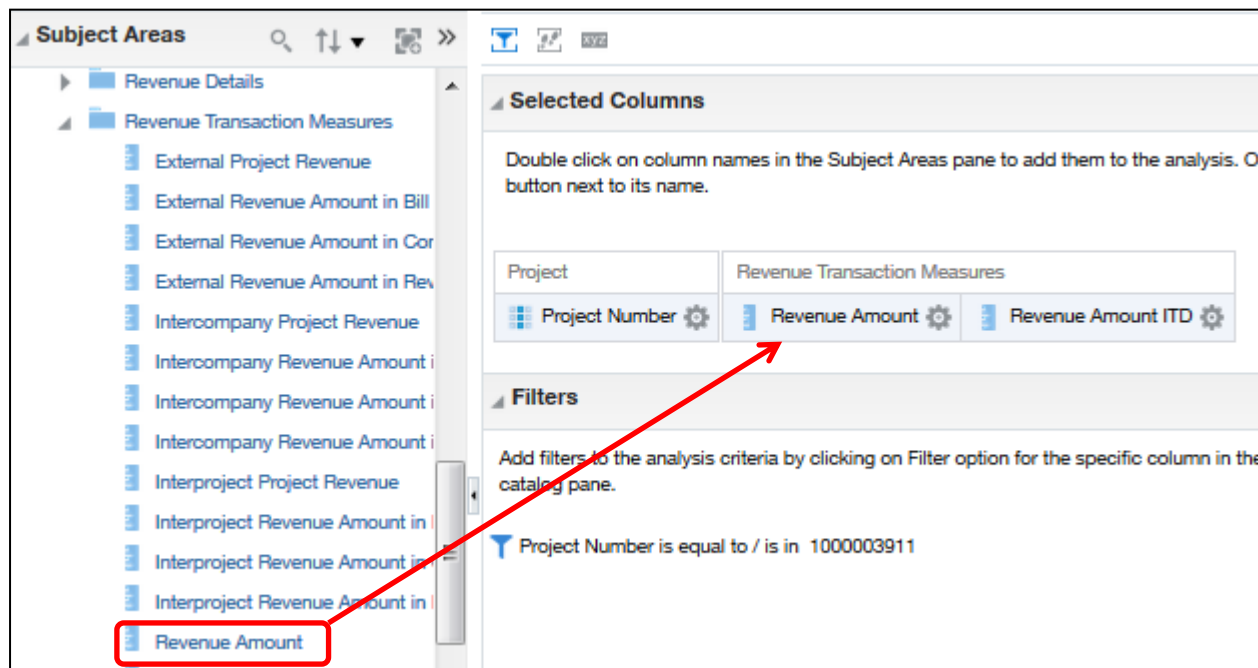
Click Edit Formula for the column



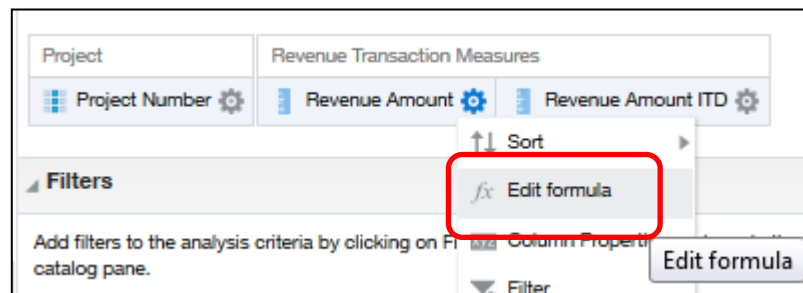
Check « Custom Heading » then add the suffix ITD



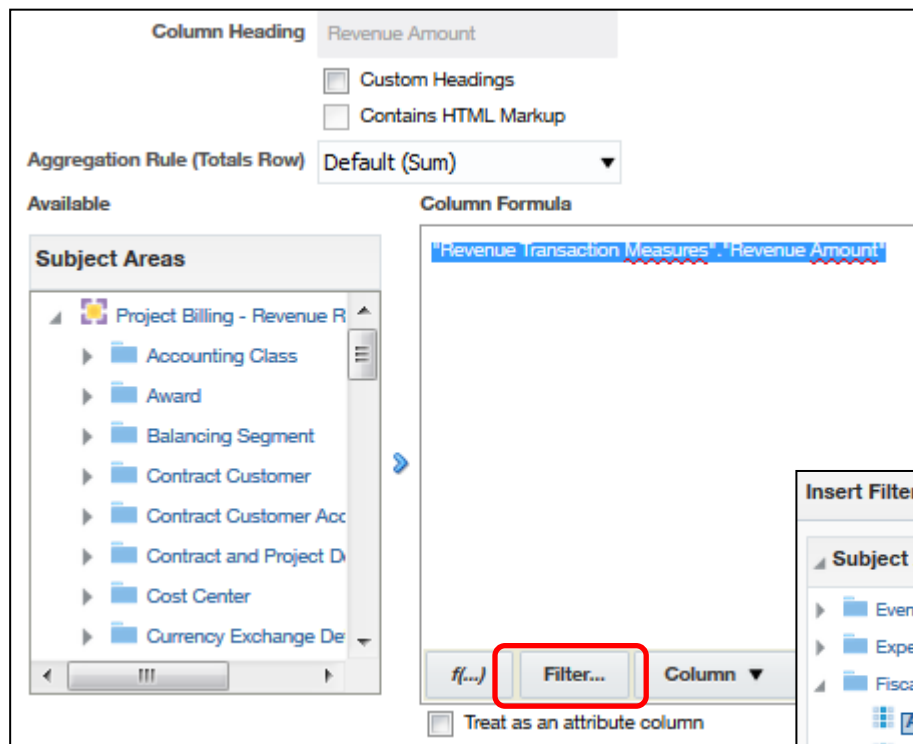
Now let's manage the PTD revenue column, but first off add the Revenue Amount column to the analysis again



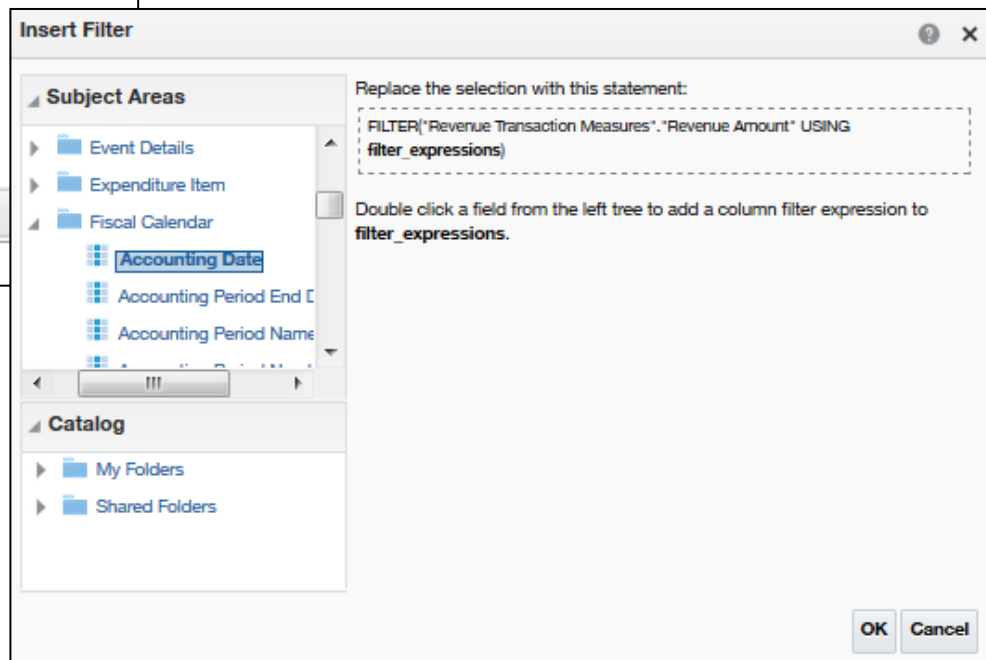
Then click Edit Formula



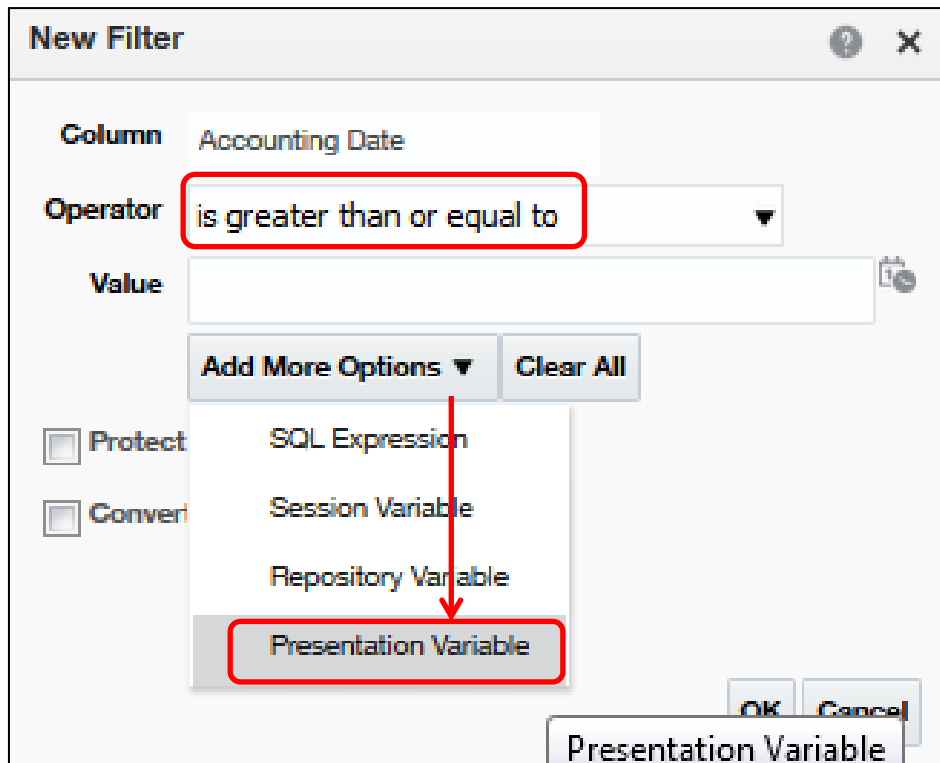
The idea here is to add a « accounting date from » dynamic parameter. By default the accounting date setup in the prompt is the « accounting date to » :



First off click Filter



Then select the Accounting Date and double click on it

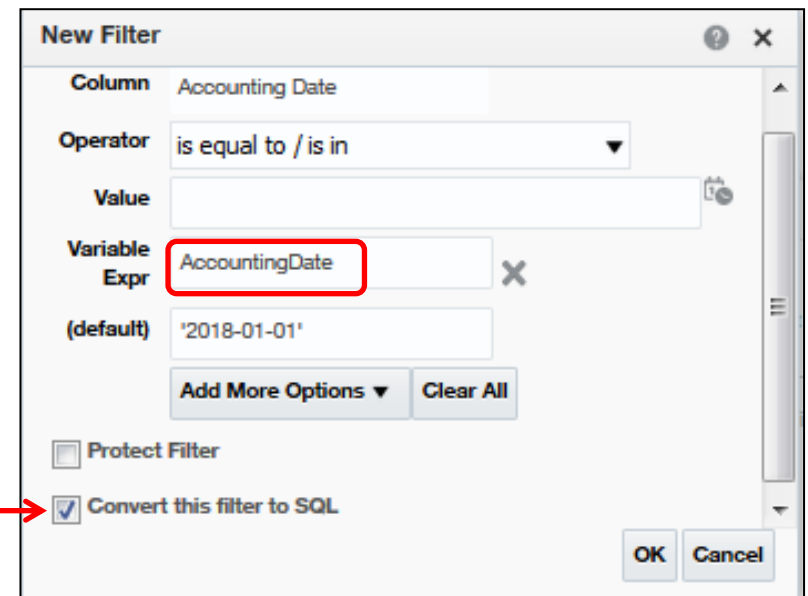


Change the Operator to « is greater than or equal to » then click Add More Options and choose « Presentation Variable »

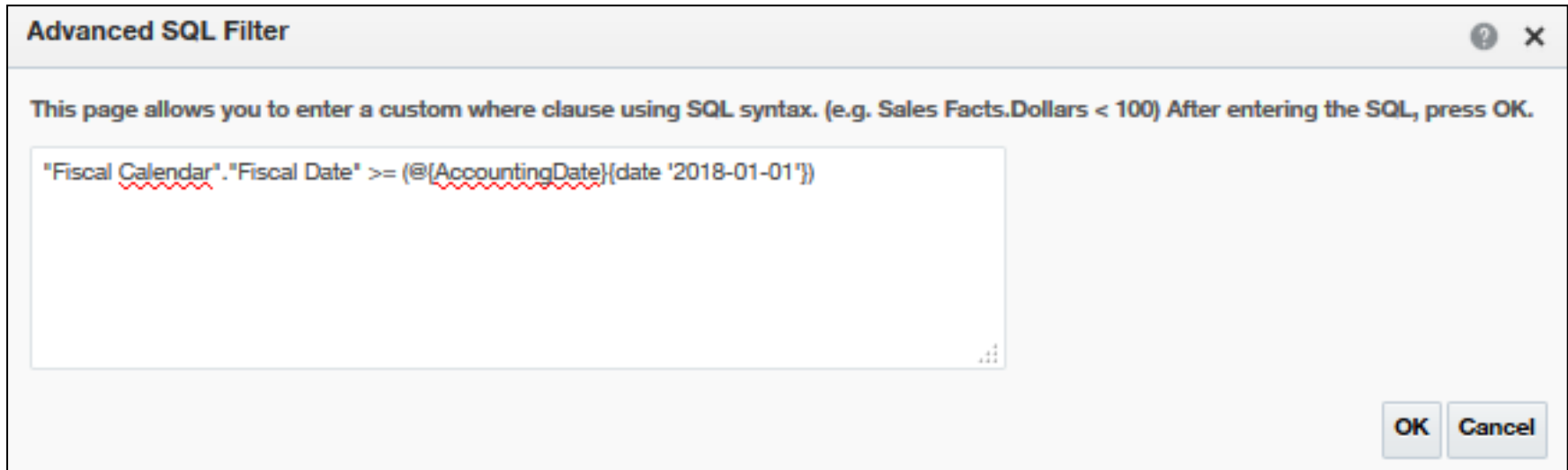
In the Variable Expr field, enter the presentation variable value setup earlier

Also enter a default value for it

Then click on « Convert this Filter to SQL »

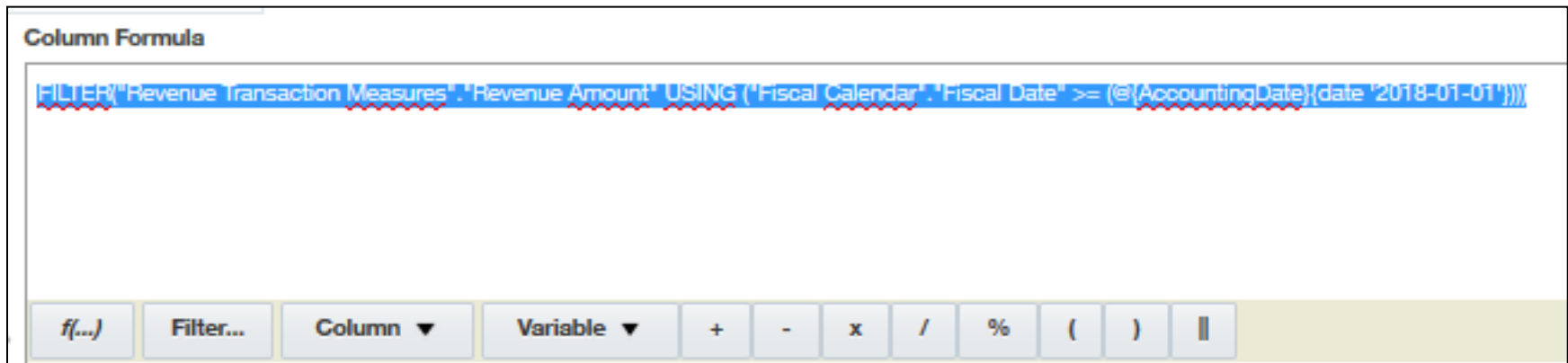


A new window should appear with the following syntax



"Fiscal Calendar"."Fiscal Date" >= (@{AccountingDate}{date '2018-01-01'})

Click OK twice, we will see the following syntax



FILTER("Revenue Transaction Measures"."Revenue Amount" USING ("Fiscal Calendar"."Fiscal Date" >= (@{AccountingDate}{date '2018-01-01'})))

What do we intend to do ? we do intend to set up a default from Accounting date value.

And we are going to use the presentation variable date to dynamically derive the first day of its period.

So we have to transform the FILTER syntax. Again we are using the TIMESTAMPADD function :

FILTER("Revenue Transaction Measures"."Revenue Amount" USING ("Fiscal Calendar"."Fiscal Date" >= TIMESTAMPADD(SQL_TSI_DAY, - DAYOFMONTH((@{AccountingDate}{date '2018-01-01'})) + 1 , (@{AccountingDate}{date '2018-01-01'}))))

Copy/Paste this new formula to the column formula area

FILTER("Revenue Transaction Measures"."Revenue Amount" USING ("Fiscal Calendar"."Fiscal Date" >= (@{AccountingDate}{date '2018-01-01'})))

Column Formula

```
FILTER("Revenue Transaction Measures"."Revenue Amount" USING ("Fiscal Calendar"."Fiscal Date" >= TIMESTAMPADD(SQL_TSI_DAY, DAYOFMONTH((@{AccountingDate}{date '2018-01-01'}) + 1, (@{AccountingDate}{date '2018-01-01'}))))
```

f(...) Filter... Column ▼ Variable ▼ + - x / % () ||

Check the Custom Headings and add the suffix PTD

Column Formula Bins

Folder Heading Revenue Transaction Measures


Column Heading Revenue Amount PTD

Custom Headings

Contains HTML Markup

Eventually click OK

Now let's try the analysis with the 30th of June

Accounting Date ← 06/30/2018 

OK Reset ▼

Edit - Refresh - [Copy](#)


Project Number	Revenue Amount PTD	Revenue Amount ITD
1000003911	97461.0	124215.0

Edit - Refresh - Print - Export - Add to Briefing Book - [Copy](#)

The same logic can be use to add a Revenue Amount YTD column

Column Formula


```
FILTER("Revenue Transaction Measures"."Revenue Amount" USING ("Fiscal Calendar"."Fiscal Date" >= TIMESTAMPADD(SQL_TSI_DAY, EXTRACT(DAY_OF_YEAR FROM (@{AccountingDate}{date '2018-01-01'}) * -(1) + 1, (@{AccountingDate}{date '2018-01-01'}))))
```



f(...) Filter... Column ▼ Variable ▼ + - x / % () ||

*FILTER("Revenue Transaction Measures"."Revenue Amount" USING ("Fiscal Calendar"."Fiscal Date" >= TIMESTAMPADD(SQL_TSI_DAY , EXTRACT(DAY_OF_YEAR FROM (@{AccountingDate}{date '2018-01-01'}) * -(1) + 1, (@{AccountingDate}{date '2018-01-01'}))))*

Let's try it again

Accounting Date <= 06/30/2018 

OK Reset ▼

[Edit](#) - [Refresh](#) - [Copy](#)

Project Number	Revenue Amount PTD	Revenue Amount YTD	Revenue Amount ITD
1000003911	97461.0	124215.0	124215.0

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In this example, the project has been created in 2018, so results are the same for YTD and ITD