



# Eos Project Analytics

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## User Guide

Date: August 18, 2011

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## Purpose of this guide

This guide provides instructions for working with Eos Project Analytics. It assumes you are familiar with Eos Advisor and Microsoft Excel 2007 or 2010.



**Note.** The budgets and data shown in this guide are samples used only for illustration purposes. The classifications, values, and other data that you will see in EPA will reflect your company's budgets, and configuration and use of Advisor.

## Overview

Eos Project Analytics (EPA) is a configurable plug-in for Advisor. It captures all of the information for the budgets in **Compare Budget** and transfers it to a custom Microsoft Excel application where you can analyze and manipulate your budget data.

Although you can use Advisor's **Send to Excel** feature to transfer information from each page of **Compare Budget** to an Excel workbook, EPA surpasses the capabilities of the **Send to Excel** feature:

- EPA captures all of the information on the **Budget Info**, **Elements**, and **Totals** tab from the budgets shown in **Compare Budget** and transfers it to a single Excel file.  
**Send to Excel** transfers only the information shown on the current tab, which means you would have to run the **Send to Excel** feature several times and work with several Excel files to obtain all of the information that EPA provides.
- EPA picks up *all* the levels of detail for the selected budgets, regardless of the level shown in **Compare Budget** when you launch it.  
**Send to Excel** takes only the level of detail currently shown in **Compare Budget**. For example, if you display the **Elements** tab at the top classification level and select **Send to Excel**, the resulting Excel workbook contains only the **Elements** data for the top classification level. It does not contain the data for the **Budget Info** or **Totals** tab or the data for the subordinate classification levels.
- EPA exports the image, if one is defined, for each budget.  
**Send to Excel** does not export the images specified for the budgets.
- EPA allows you to see multiple comparison columns in a single view.  
**Send To Excel** shows a single comparison column based on the focus in Advisor.
- EPA provides additional features for analyzing and manipulating your budget data, including applying a secondary metric to the budgets, allocating factors or markups, selecting a different metric for the High-Low chart, and applying an alternate base currency to your budget data.

EPA offers several charts, including a High-Low chart, Bar charts for level 1 and 2, and up to four Ratio charts that you define for the project.

# Review the Eos Project Analytics workbook

After you use EPA to transfer the compared budgets from Advisor, you are ready to review the EPA workbook.

	Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek Pro Center	Average (Adjusted)
<b>General</b>					
ID	Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek PC	
Description	Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek Pro Center	
Address 1	8160 Parallel Pkwy	335 Hawthorne Ln	319 W University Blvd	26500 American Dr	
Address 2					
City	Kansas City	Athens	Durant	Southfield	
State	KS	GA	OK	MI	
County	-	-	-		
Country	USA	USA	USA	USA	
Postal Code	66112-2068	30606	74701-3327	48034	
<b>Baseline</b>					
Date	Jan 1, 2002	Jul 19, 2007	Nov 3, 2001	Jun 15, 2001	
Location	KS-Kansas City	GA-Athens	OK-Durant	TX-Austin	
Job Size	81,276	67,264	77,504	68,320	73,591
<b>Budget Attributes</b>					
Domain	Buildings & Structures	Buildings & Structures	Buildings & Structures	Buildings & Structures	
Product Group	Commercial	Commercial	Commercial	Commercial	
Product Type	Office	Office	Office	Office	

The EPA workbook organizes the budget data onto the following sheets:

- **Budget Information**
- **Elements**
- **High-Low Chart - Level 1**
- **Bar Chart - Level 1**
- **Bar Chart - Level 2**
- **Ratios**





The EPA workbook provides an offline, static snapshot of your budget data at the time you create it. You can change the reporting metrics in EPA without having to connect to the Advisor database. Note that if you modify the budgets in Advisor, the workbook is not updated to reflect those changes. You need to create a new EPA workbook after you make changes in Advisor.

## Review the Budget Information sheet



The **Budget Information** sheet is the first sheet in the workbook. It displays the budgets similar to the way they display on the **Budget Info** tab of the Advisor **Compare Budget** page.

	Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek Pro Center	Average (Adjusted)
<b>General</b>					
ID	Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek PC	
Description	Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek Pro Center	
Address 1	8160 Parallel Pkwy	335 Hawthorne Ln	319 W University Blvd	26500 American Dr	
Address 2					
City	Kansas City	Athens	Durant	Southfield	
State	KS	GA	OK	MI	
County	-	-	-		
Country	USA	USA	USA	USA	
Postal Code	66112-2068	30606	74701-3327	48034	
<b>Baseline</b>					
Date	Jan 1, 2002	Jul 19, 2007	Nov 3, 2001	Jun 15, 2001	
Location	KS-Kansas City	GA-Athens	OK-Durant	TX-Austin	
Job Size	81,276 gsf	67,264	77,504	68,320	73,591
<b>Budget Attributes</b>					
Domain	Buildings & Structures	Buildings & Structures	Buildings & Structures	Buildings & Structures	
Product Group	Commercial	Commercial	Commercial	Commercial	
Product Type	Office	Office	Office	Office	

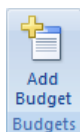
- ◆ To review the Budget Information sheet
  - 1 Expand and collapse the columns that are hidden by default, as needed, to facilitate reviewing the sheet.
    - To expand all the hidden columns, click **2** in the upper left corner of the workbook. To expand one column, click the **+** associated with that column.
    - To collapse all the columns, click **1**. To collapse one column, click the **-** associated with that column.

	H	I	J	L	N	P
16	Eos Project Analytics Budget Information					
21	Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek Pro Center		
22						
23	<b>General</b>					
24	ID	Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek PC	
25	Description	Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek Pro Center	
26	Address 1	8160 Parallel Pkwy	335 Hawthorne Ln	319 W University Blvd	26500 American Dr	
27	Address 2					

The hidden columns provide a place for you to edit the budgets. Although you can change the contents of any budget cell, we encourage you to use the green-shaded cells for this purpose.

	H	I	J	K	L
16	Eos Project Analytics Budget Information				
21	Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek Pro Center	
22					
23	<b>General</b>				
24	ID	Farmers Insurance	Farmers Insurance	Farmers Insurance	Jamestown Office
25	Description	Farmers Insurance	Farmers Insurance	Farmers Insurance	Jamestown Office
26	Address 1	8160 Parallel Pkwy	8160 Parallel Pkwy	8160 Parallel Pkwy	335 Hawthorne Ln
27	Address 2				
28	City	Kansas City	Kansas City	Kansas City	Athens

You can also use the level controls (1, 2) located in the upper left corner of the sheet, along with the individual level controls (+ and -) located along the left side of the sheet, to expand and collapse the grouping levels to show the desired amount of budget detail.



- To add a budget to the EPA workbook, click **Add Budget** (Excel ribbon > **Eos Project Analytics** tab > **Budgets** group). Complete the information in the **Add Budget** window and click **OK**. For detailed information on how to add a budget, see “Add budgets” on page 15.

[illegible]

**Note.** The **Elements** sheet is designed to compare budgets that use the same coding scheme and level of detail. For example, although you can compare UniFormat budgets to CSI-based budgets in Advisor, if you transfer them to Project Analytics, the resulting workbook will show both UniFormat and CSI overlines (levels), which makes it difficult to analyze the data. For the best results with EPA, be sure to compare budgets that use the same coding scheme and detail level.

- ◆ To review the Elements sheet
  - 1 Click the **Elements** tab at the bottom of the workbook to switch to the **Elements** sheet.
  - 2 Expand and collapse the sections that are hidden by default, as needed, to facilitate reviewing the sheet. This functionality works similarly to the way it works on the **Budget Information** sheet except that the columns are hidden in sections on the **Elements** sheet.



**Note.** The **Base Cost \$** column is hidden by default. This column contains the value from Advisor. After you make changes in the workbook, the values in the **Adjusted Cost \$** column reflect your changes.

- 3 Use the level controls (1 2 3 4) located in the upper left corner of the sheet, along with the individual level controls (+ and -) located along the left side of the sheet, to expand and collapse the grouping levels to show the desired amount of detail.
- 4 To apply a different primary metric, select the desired metric from the **Primary** list (Excel ribbon > **Eos Project Analytics** tab > **Metrics** group). EPA uses **Job Size** as the primary metric by default.
- 5 To apply a secondary metric to the budgets, select the desired metric from the **Secondary** list.

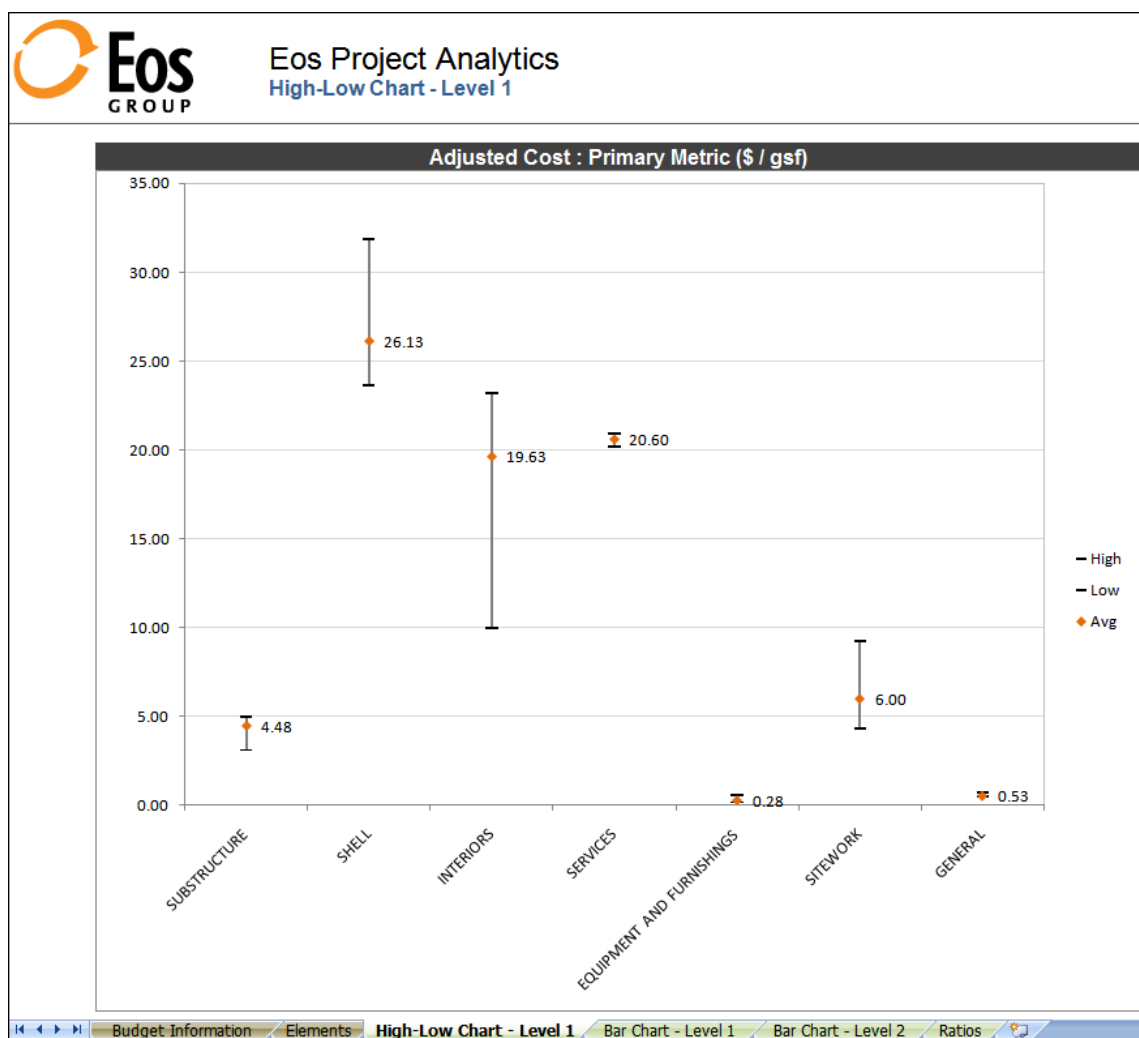
To expand the columns that contain the metrics, click 2.

ID	Description	Adjusted Cost \$	Job Size (gsf)	Grand Total Cost (\$)
17 A	SUBSTRUCTURE	252,003	3.10	0.04
30 B	SHELL	2,587,608	31.84	0.39
55 C	INTERIORS	810,707	9.97	0.12
84 D	SERVICES	1,667,009	20.51	0.25
114 E	EQUIPMENT AND FURNISHINGS	45,885	0.56	0.01
120 G	SITWORK	352,066	4.33	0.05
159 Z	GENERAL	55,282	0.68	0.01
169	<b>TOTAL COST</b>	<b>5,770,560</b>	<b>71.00</b>	<b>0.87</b>
171	Design Contingency	14,433	0.18	0.00

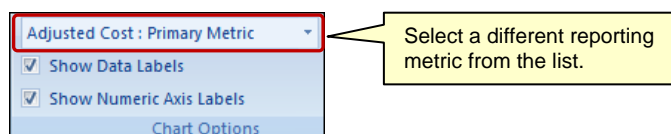


## Review the High-Low Chart - Level 1 sheet

The EPA **High-Low Chart** is similar to the one created by the **Send to Excel** feature, but with the EPA **High-Low Chart** you can select a different reporting metric.

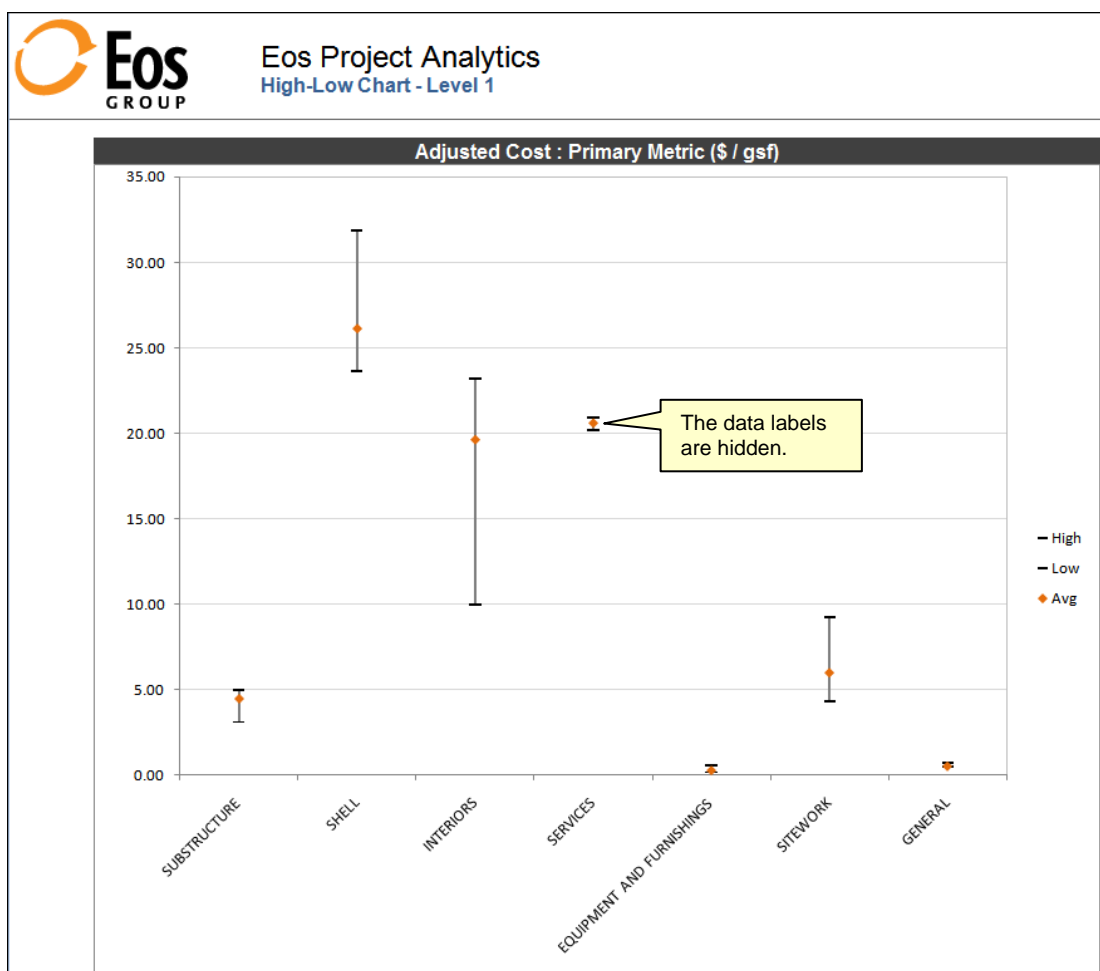
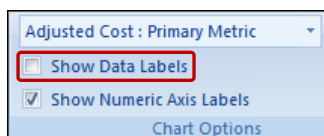


- ◆ To review the High-Low Chart
  - 1 Click the **High-Low Chart - Level 1** tab at the bottom of the workbook to switch to the **High-Low Chart - Level 1** sheet.
  - 2 To change the reporting metric for the chart, select the desired metric from the list (Excel ribbon > **Eos Project Analytics** tab > **Chart Options** group).



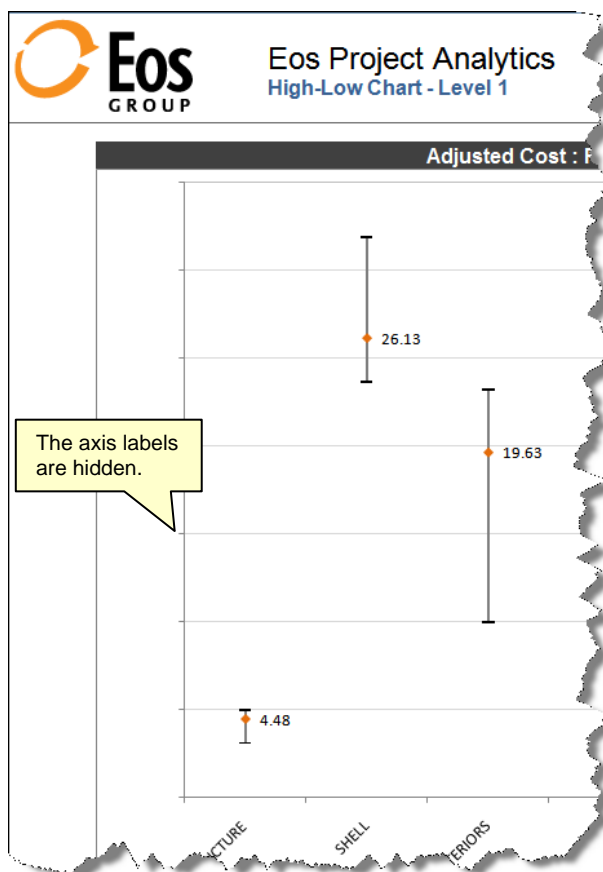
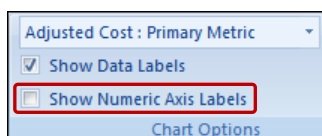


- 3 To hide the data labels on the chart, clear the **Show Data Labels** check box (Excel ribbon > **Eos Project Analytics** tab > **Chart Options** group).



To show the data labels on the chart, select the **Show Data Labels** check box.

- 4 To hide the numeric axis labels on the chart, clear the **Show Numeric Axis Labels** check box (Excel ribbon > **Eos Project Analytics** tab > **Chart Options** group). To show the numeric axis labels, select the **Show Numeric Axis Labels** check box.

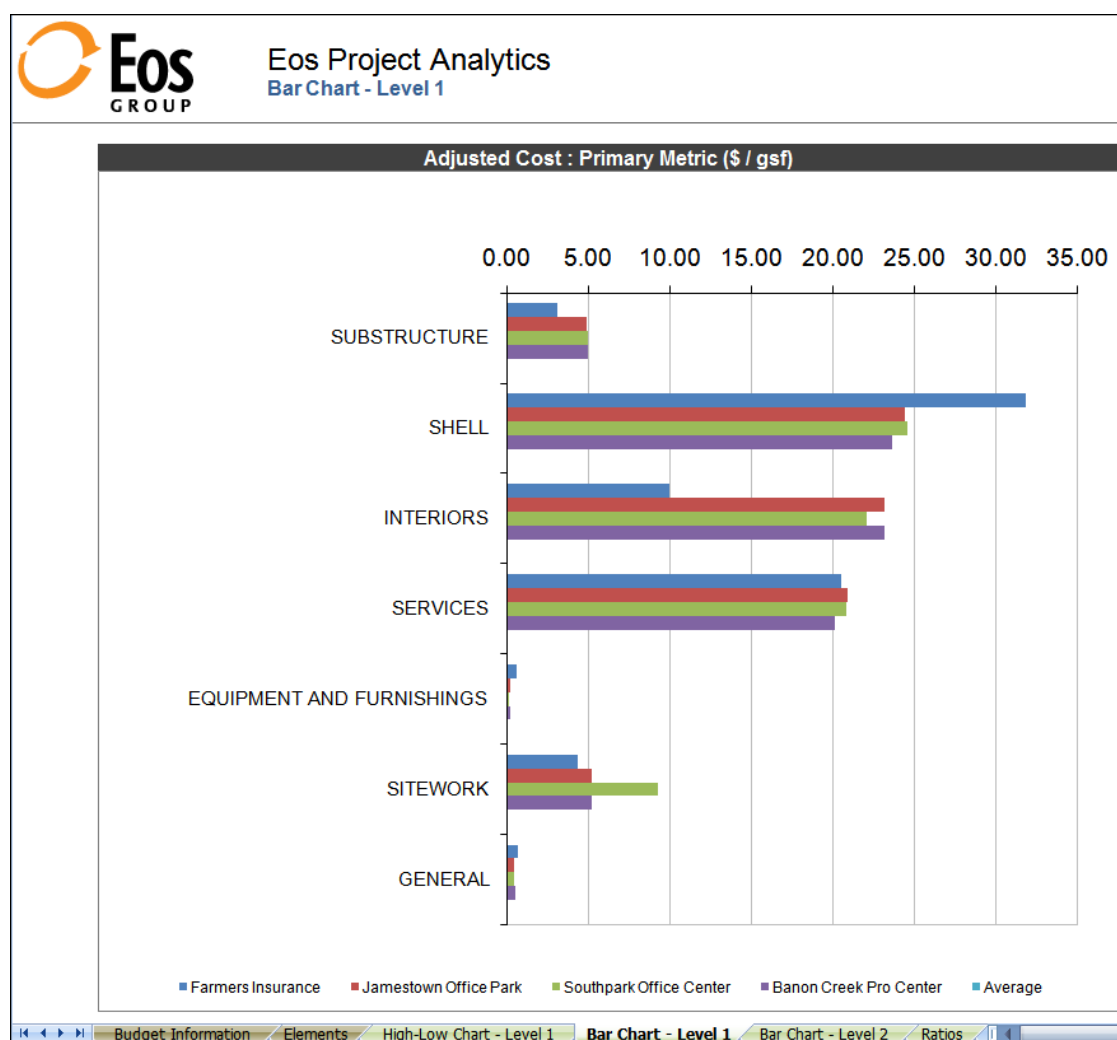


**Note.** The **Chart Options** are available only for the **High-Low Chart** and **Bar Chart** sheets.

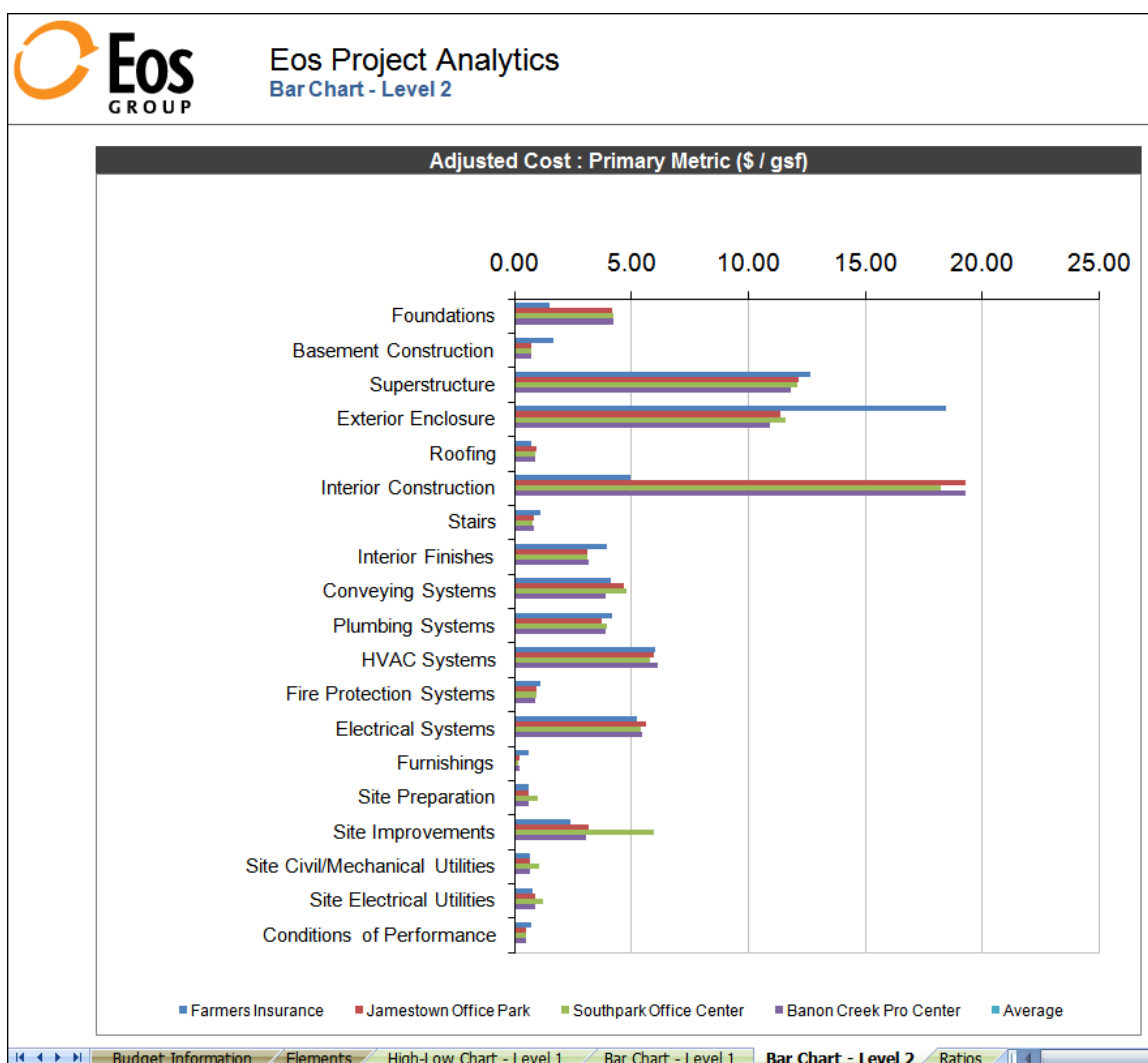
## Review the Bar Chart - Level 1 and Level 2 sheets

The **Bar Charts** are similar to the one created by the **Send to Excel** feature, but with the **Send to Excel** chart, you see only one set of values. With EPA you can see two sets of values:

- **Bar Chart - Level 1** shows the level one element values for the selected metric.
- **Bar Chart - Level 2** shows the level two element values for the selected metric. Note that if the selected budgets use numerous level two element values, the Level 2 chart can become overly busy due to the number of rows presented.



**Bar Chart - Level 1**



## Bar Chart - Level 2

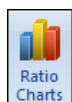
- ◆ To review the Bar Chart sheets
  - 1 Click the **Bar Chart - Level 1** tab at the bottom of the workbook to switch to the **Bar Chart - Level 1** sheet.
  - 2 Click the **Bar Chart - Level 2** tab to switch to the **Bar Chart - Level 2** sheet.
  - 3 Change the options for the bar charts, as needed, using the settings in the **Chart Options** group on the ribbon:
    - To change the reporting metric for the chart, select the desired metric from the list.
    - To hide the data labels on the chart, clear the **Show Data Labels** check box. To show the data labels on the chart, select the **Show Data Labels** check box.
    - To hide the numeric axis labels on the chart, clear the **Show Numeric Axis Labels** check box. To show the axis labels on the chart, select the **Show Numeric Axis Labels** check box.

## Set up Ratio charts on the Ratios sheet

You can set up four different Ratio charts for the EPA workbook. Each time you create an EPA workbook you need to define the desired ratios.

◆ To set up Ratio charts

- 1 Click the **Ratios** tab at the bottom of the workbook to switch to the **Ratios** sheet.
- 2 Click **Ratio Charts** in the **Chart Options** group (Excel ribbon > **Eos Project Analytics** > **Chart Options**) to open the **Ratio Chart Options** window.



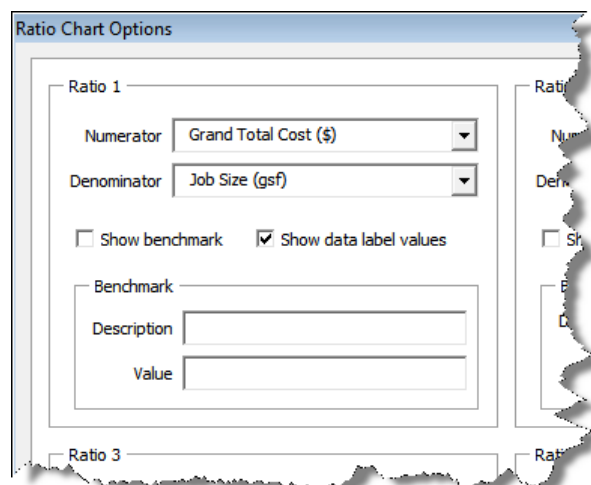
The screenshot shows the 'Ratio Chart Options' dialog box. It is divided into four panels, one for each ratio (Ratio 1, Ratio 2, Ratio 3, and Ratio 4). Each panel contains the following elements:

- Numerator**: A dropdown menu.
- Denominator**: A dropdown menu.
- Show benchmark**: An unchecked checkbox.
- Show data label values**: A checked checkbox.
- Benchmark**: A section containing:
  - Description**: A text box.
  - Value**: A text box.

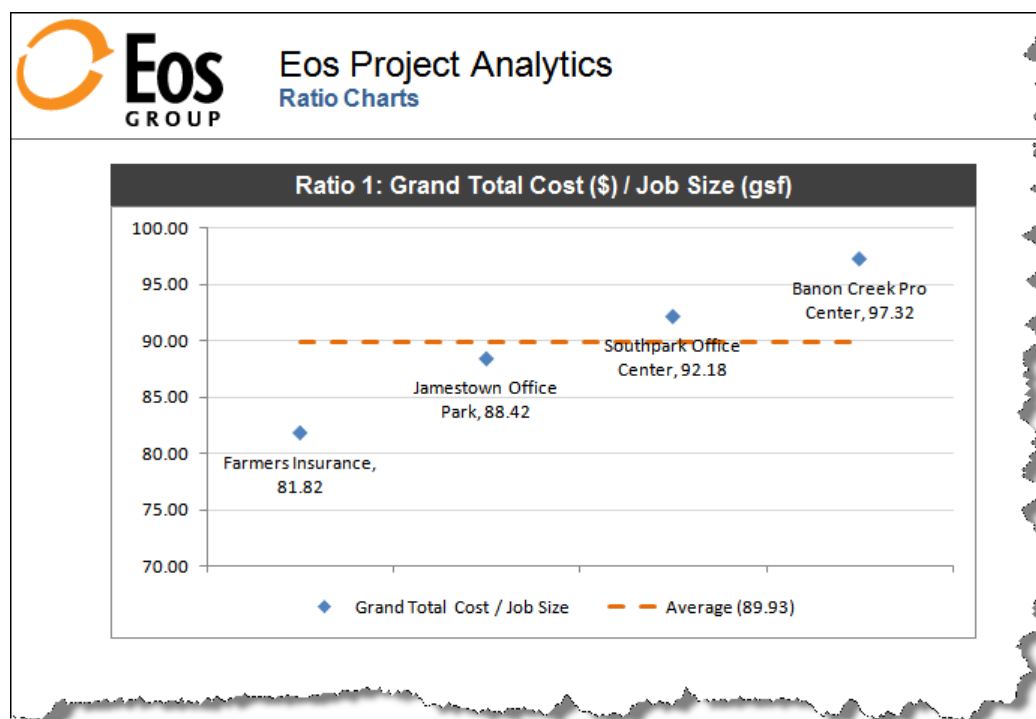
At the bottom of the dialog box are three buttons: **OK**, **Cancel**, and **Apply**.

- 3 Under **Ratio 1**, select the desired **Numerator** for the ratio from the list. Then select the desired **Denominator** for the ratio from the list.
- 4 To show a benchmark on the ratio chart, select the **Show benchmark** check box. Otherwise, leave the check box cleared.  
  
If you choose to show a benchmark, enter a **Description** (up to 60 characters) and **Value** for the benchmark in the **Benchmark** area.
- 5 To show labels for the data values, make sure the **Show data label values** check box is selected. Otherwise, clear this check box.
- 6 To see the effect of your entries on the **Ratios** sheet, you can click **Apply** at any time.

The following shows a ratio example and the resulting Ratio chart.



The image shows the 'Ratio Chart Options' dialog box. It has a title bar 'Ratio Chart Options'. Inside, there are sections for 'Ratio 1', 'Benchmark', and 'Ratio 3'. Under 'Ratio 1', the 'Numerator' is set to 'Grand Total Cost (\$)' and the 'Denominator' is set to 'Job Size (gsf)'. There are checkboxes for 'Show benchmark' (unchecked) and 'Show data label values' (checked). The 'Benchmark' section has fields for 'Description' and 'Value'. The 'Ratio 3' section is partially visible at the bottom.

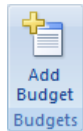


- 7 Set up additional ratios in the **Ratio Chart Options** window as desired.
- 8 When you finish setting up ratio charts, click **OK** to close the **Ratio Chart Options** window.

# Add budgets

You can add a budget to the Eos Project Analytics workbook from any sheet.

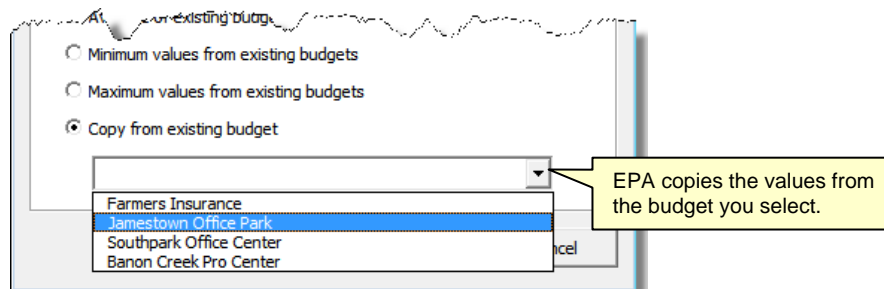
- ◆ To add a budget



- 1 Click **Add Budget** (Excel ribbon > **Eos Project Analytics** tab > **Budgets** group). The **Add Budget** window opens.

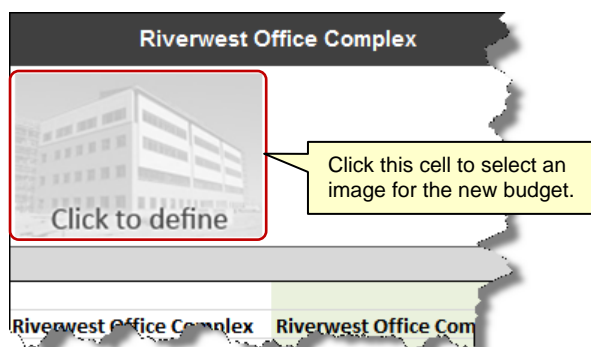
 A screenshot of the 'Add Budget' dialog box. It has a title bar 'Add Budget'. Inside, there is a 'Budget Id' text box. Below it are five radio button options: 'Blank' (selected), 'Average of existing budgets', 'Minimum values from existing budgets', 'Maximum values from existing budgets', and 'Copy from existing budget'. Below these options is a dropdown menu. At the bottom are 'OK' and 'Cancel' buttons.

- 2 In the **Budget Id** box, enter a short description (up to 50 characters) for the new budget.
- 3 Select an option to specify how EPA will calculate or supply the values for the new budget:
  - **Blank:** EPA leaves all the values blank for the new budget so you can enter them manually in the workbook.
  - **Average of existing budgets:** EPA uses the average of the existing budgets in the workbook as the values for the new budget.
  - **Minimum values from existing budgets:** EPA uses the lowest (minimum) values from the existing budgets in the workbook as the values for the new budget.
  - **Maximum values from existing budgets:** EPA uses the highest (maximum) values from the existing budgets in the workbook as the values for the new budget.
  - **Copy from existing budget:** EPA copies the values from an existing budget in the workbook and uses them for the new budget. If you choose this option, select the desired budget from the list.






- 4 Click **OK** to add the budget. EPA adds the budget to the right of the last budget column on the **Budget Information** sheet.
- 5 To add an image for the new budget, click the cell below the column heading of the new budget, as shown below.




- When the **Load Picture** window opens, locate the desired image for the budget. EPA supports any of the standard picture formats, including .jpg, .gif, .bmp, .png, and more.
- 6 Review the new budget on the **Budget Info** sheet and modify or complete the values as needed.

- ◆ To allocate factors

	1										
	2										
	3										
	4										
1	2	3	4	5	N	O	P	V			
	6	 <b>Eos Project Analytics</b> Elements									
	7						Farmers Insurance	Jamestown Office Park			
	8						Adjusted Cost \$	Adjusted Cost \$			
	9						(with factors)	(with factors)			
	10	ID	Description								
	11										
	12										
	13										
	14										
	15										
+	17	A	SUBSTRUCTURE				317,047	450,918			
+	30	B	SHELL				3,255,490	2,243,755			
+	55	C	INTERIORS				1,019,956	2,129,237			
+	84	D	SERVICES				2,097,278	1,918,242			
+	114	E	EQUIPMENT AND FURNISHINGS				57,728	18,932			
+	120	G	SITework				442,937	479,128			
+	159	Z	GENERAL				69,550	42,956			
	169	<b>TOTAL COST</b>						<b>7,259,987</b>	<b>7,283,168</b>		
	171	Design Contingency						18,158	18,208		
	172	Sales Tax						3,205			
	173	Escalation Contingency						36,316	24,253		
	174	Construction Contingency									
	175	Construction Contingency						72,632	54,624		
	176	General Conditions						591,224	184,506		
	177	Insurance						62,818	88,563		
	178	Construction Fee						321,774	459,199		
	179	Fee									
	180	Colorado Sales Tax									
	182	<b>TOTAL MARKUPS</b>						<b>1,106,125</b>	<b>829,353</b>		
	183	<b>GRAND TOTAL COST</b>						<b>8,366,113</b>	<b>8,112,521</b>		
	185	Target Date (Jan 1, 2012 - Dec 31, 2012)									
	186	Target Location (CA-San Diego)									
	187	Contingency Factor									
	188	Target Job Size									
	189	Currency Factor									
	191	<b>GRAND TOTAL COST (FACTORED)</b>						<b>8,366,113</b>	<b>8,112,521</b>		



- ◆ To allocate markups

	1								
	2								
	3								
	4								
1	2	3	4	N	O	P	V		
	6	 Eos Project Analytics GROUP Elements							
	7	ID	Description	Farmers Insurance	Jamestown Office Park	So			
	8								
	9								
	10								
	11								
	12								
	13								
	14			Adjusted Cost \$ <i>(with markups)</i>	Adjusted Cost \$ <i>(with markups)</i>				
	15								
+	17	A	SUBSTRUCTURE	290,398	368,216				
+	30	B	SHELL	2,981,854	1,832,234				
+	55	C	INTERIORS	934,225	1,738,720				
+	84	D	SERVICES	1,920,993	1,566,422				
+	114	E	EQUIPMENT AND FURNISHINGS	52,876	15,459				
+	120	G	SITEWORK	405,706	391,253				
+	159	Z	GENERAL	63,705	35,078				
	169		TOTAL COST	6,649,757	5,947,381				
	171		Design Contingency						
	172		Sales Tax						
	173		Escalation Contingency						
	174		Construction Contingency						
	175		Construction Contingency						
	176		General Conditions						
	177		Insurance						
	178		Construction Fee						
	179		Fee						
	180		Colorado Sales Tax						
	182		TOTAL MARKUPS						
	183		GRAND TOTAL COST	6,649,757	5,947,381				

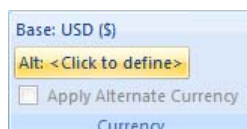
20 of 24

[illegible]

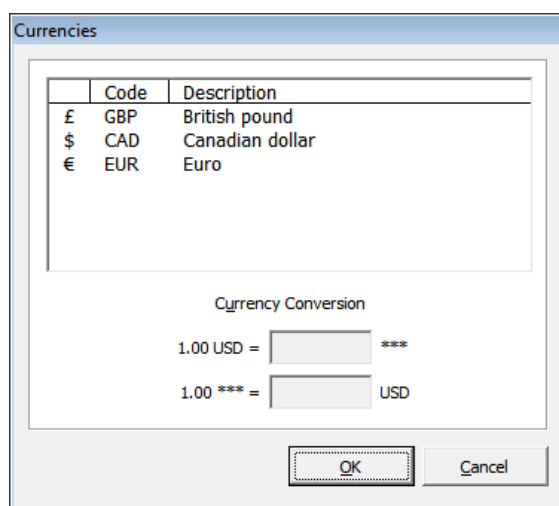
## Define and apply an alternate base currency

Perform the following procedure to apply an alternate base currency to the budgets in the EPA workbook

- ◆ To define and apply an alternate base currency to the budgets
  - 1 In the **Currency** group (Excel ribbon > **Eos Project Analytics** tab), click **Alt: <Click to define>**.



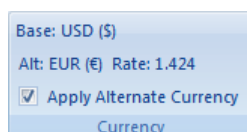
The **Currencies** window opens.



- 2 Select the desired currency in the list.
- 3 Enter the conversion rate and click **OK**.

You can enter the conversion rate in either conversion box and the corresponding conversion automatically appears in the other box.

- 4 To apply the alternate currency to the budgets in the workbook, select the **Apply Alternate Currency** check box.



## Modify the headings

Perform the following procedure to modify the headings that appear on the workbook sheets when you print them.

- ◆ To modify the headings








- 1 Click **Headings** (Excel ribbon > **Eos Project Analytics** tab > **Options** group). The **Headings** window opens.

The **Headings** dialog box contains two sections: **Left Heading** and **Right Heading**. Each section has a **Caption** text box and a **Description** text box. At the bottom right are **OK** and **Cancel** buttons.

- 2 Enter the desired information for the left and right headings:
  - **Caption:** The caption appears in **bold** and precedes the description.
  - **Description:** The description appears after the caption in the regular font style.

The printed output shows the headings and a table of project data. The left heading is "Left caption Left description" and the right heading is "Right caption Right description". The table includes the Eos Group logo, the text "Eos Project Analytics Budget Information", and a table with columns for project names and an average value.

Left caption	Left description	Right caption	Right description
 <b>Eos</b> Project Analytics Budget Information			
Farmers Insurance	Jamestown Office Park	Southpark Office Center	Banon Creek Pro Center
			Average (Adjusted)
   			

- 3 Click **OK**.



## Appendix: FAQ

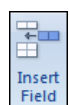
This appendix contains answers to frequently asked questions about EPA.

### Can I change the grouping and order of the budget information in EPA?

Yes. Your system administrator can configure the grouping and order of the budget information for EPA. Contact your Eos consultant for assistance configuring and customizing EPA.

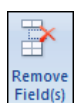
### How do I insert and remove rows in the EPA workbook?

#### ◆ To insert a row



- 1 Locate the row that you want the new row to appear above and select a cell in that row.
- 2 In the **Budget Information** group, click **Insert Field** (Excel ribbon > **Eos Project Analytics** tab).
- 3 In the **Insert Field** window, enter a brief description for the row in the **Description** box.
- 4 From the **Data type** list, select the type of information that the row will contain: **Currency**, **Numeric**, **Date**, or **Text**.
- 5 Click **OK**. The new row appears in the workbook.

#### ◆ To remove a row



- 1 Click a cell in the row you want to remove.
- 2 In the **Budget Information** group, click **Remove Field** (Excel ribbon > **Eos Project Analytics** tab).
- 3 When prompted, click **Yes** to confirm the deletion. You cannot undo a row deletion.

### How do I add images to my budgets in Advisor?

Although you can add images to your budgets in EPA, you may want your budgets to come into EPA with images already attached to them. You can do this by attaching an image to the budget in Advisor. Note that Advisor supports only .jpg files.

#### ◆ To add an image to a budget in Advisor

- 1 From **Pending Budgets** or **Manage Budgets**, click the **Attachments** tab.
- 2 Click **Add Attachment**.
- 3 Under **Add**, browse to the location of the .jpg file and select it. The file name appears in the **Filename** box.
- 4 Select the **Thumbnail** check box.

**5** For **Description**, enter rptpic.

**6** Click **Save & Close**.

## Can I export budget data from EPA to DProfiler?

Yes. Contact your Eos consultant for information about exporting your budget data from EPA to DProfiler.