Data Grid

DATA GRID OVERVIEW

We will introduce an artificial sample project that will be used to illustrate the Datagrid functionality.

- Alternatives (Alt1, Alt2, and Alt3)
- We named the Objectives based on the Measurement Methods used when evaluating the alternatives with respect to (wrt) those objectives (Pairwise, Rating, Direct, UtilityCurve, StepFunction)

The Datagrid for this example looks like the following:

The Cost and Risk are values used in the Allocate process. The Alternative Attributes, if they exist, are also displayed -- we will ignore them here.

The values in the display are the priorities for the alternatives for All Participants.

Similar Datagrid displays can be produced for any participant or group of participants by selecting the participant or group from the pull-down menu.

You can also select the normalization, either Normalized or Unnormalized;

and then select Ideal or Distributive for Normalized Results.

You can Download the Datagrid as a .xlsx file for one user or group at a time.

You can modify the downloaded file -- such as add, edit, delete Alternatives, enter judgments (for participants Datagrid), and alternative attributes assignments.

DOWNLOAD DATA GRID

The button is used to create a .xlsx file (readable in Excel) with four sections:

- Datagrid
- Calculated
- Instructions
- The Math Explained

Datagrid for All Participants:

The Datagrid for All Participants (see below) contains the:

All Methods						Goal													
All Participants						Pairwise	Rating	Direct	UtilityCurve	StepFunction									
Ideal mode					Local ->	0.203	0.211	0.172	0.185	0.228									
					Global ->	0.203	0.211	0.172	0.185	0.228									
#	AltGUID	Alt Name	% Minimum	% Maximum	Normalized	Total	Pairwise	Ratings	Direct	Utility Curve	Step	Cost	P.Failure	att_stri	att_intege	att_float	att_categon	att_multi	
1.000	aeb1ac73	Alt1	1.000	0.627	0.271	0.358	0.519	0.690	0.300	0.100	0.160	0.000	0.000	xx	10.000	1.110	category1	[category1, category2]
2.000	f4f82708	Alt2	1.096	0.687	0.297	0.392	0.249	0.556	0.500	0.250	0.400	0.000	0.000	yy	20.000	2.220	category2	[category1, category2]
3.000	068ea1b1	Alt3	1.595	1.000	0.432	0.570	1.000	0.259	0.100	0.660	0.760	0.000	0.000	zz	30.000	3.330	category3	[category1, category2]

Datagrid / Calculated / Instructions / The Math Explained

The Calculated sheet is similar to the Datagrid sheet but shows the ratio scale priorities derived from the specific measurement types of Pairwise, Ratings, Utility Curves and Step Functions:

All Methods					Goal													
All Participants					Pairwise	Rating	Direct	UtilityCurve	StepFun									
Ideal mode				Local ->	0.203	0.211	0.172	0.185	0.228									
				Global ->	0.203	0.211	0.172	0.185	0.228									
#	Alt Name	% Minimum	% Maximum	Normalized	Total	Pairwise	Ratings	Direct	Utility Curve	Step	Cost	P.Failure	att_stri	att_intege	att_float	att_categc	att_multi	
1.000	Alt1	1.000	0.627	0.271	0.358	0.519	0.690	0.300	0.100	0.160	0.000	0.000	xx	10.000	1.110	category1	[category1, category2]
2.000	Alt2	1.096	0.687	0.297	0.392	0.249	0.556	0.500	0.250	0.400	0.000	0.000	yy	10.000	1.110	category1	[category1, category2]
3.000	Alt3	1.595	1.000	0.432	0.570	1.000	0.259	0.100	0.660	0.760	0.000	0.000	zz	10.000	1.110	category1	[category1, category2]

Datagrid / Calculated / Instructions / The Math Explained

The Instructions sheet displays instructions you can follow when working with Datagrid:

Instructions

The **Datagrid** tab contains the raw values from your Comparion model for the selected participant or group (displayed in cell B2). These values may be modified and upload back to Comparion to update your online model:

1. You may modify any cell that is that has a DARK GREEN background.
2. You may change the scores and/or attributes for alternatives.
3. If you modify a score that is using a Rating Scale (text based scores) make sure the new score matches a valid rating intensity.

If the selected participant is a **Project Manager**, then you will have additional functionality:

1. You may rename alternatives
2. To delete an alternative, select the entire row by clicking the row number, and then delete the row.
3. You may add alternatives by inserting rows. Make sure the new row(s) are inserted between the dark border lines. Please make sure that new rows have a blank cell for the AltGUID column

About the AltGUID column. This column contains a unique identifier field that is used to map alternatives in an existing Comparion model. The only time you should modify a cell in this column is if you copy an existing row to create a new alternative. If you do this, then you will want to delete the contents of this cell so that Comparion will recognize that it is a new alternative. Otherwise you should **NEVER MODIFY THIS FIELD**. Doing so may yield unpredictable results.

Datagrid / Calculated / **Instructions** / The Math Explained

Datagrid for One of the Participants:

The Datagrid for one of the participants (in this case, the John Doe) is:

Select participant or participants group:	John Doe	Unnormalized	Ideal mode	Download	Upload	Select Columns

Alternatives	Attributes							Total	Goal				
	Cost	P.Failure	att_string	att_integer	att_float	att_category	att_multi		Pairwise PW	Rating R	Direct D	UtilityCurve UC	StepFunction S
1 Alt1	0	0		10	1.11	category1	category1, category2	0.3576865	0.5185038447	Very Good	0.3000000119	0.1000000015	20
2 Alt2	0	0		10	1.11	category1	category1, category2	0.3919403	0.2494629323	Good to Very Good	0.5	0.25	45
3 Alt3	0	0		10	1.11	category1	category1, category2	0.5703913	1	Moderate	0.1000000015	0.6600000262	80

Since John Doe is the only participant with judgments/data, it looks the same as the Datagrid for "All Participants."

However, when we download the Datagrid for the John Doe, we see a difference in the Datagrid tab of the spreadsheet:

						Goal											
All Methods																	
j.doe@eci.com						Pairwise	Rating	Direct	UtilityCurve	StepFunction							
Ideal mode					Local ->	0.203	0.211	0.172	0.185	0.228							
					Global ->	0.203	0.211	0.172	0.185	0.228							
#	AltGUID	Alt Name	% Minimum	% Maximum	Normalized	Total Pairwise	Ratings	Direct	Utility Curve	Step	Cost	P.Failure	att_string	att_intege	att_float	att_catege	att_multi
1.000	aeb1ac73	Alt1	1.000	0.627	0.271	0.358 0.519	Very Good	0.300	0.100	20.000	0.000	0.000	xx	10.000	1.110	category1	gory1, category2]
2.000	f4f82708	Alt2	1.096	0.687	0.297	0.392 0.249	Good to Very Good	0.500	0.250	45.000	0.000	0.000	yy	20.000	2.220	category2	gory1, category2]
3.000	068ea1b1	Alt3	1.595	1.000	0.432	0.570 1.000	Moderate	0.100	0.660	80.000	0.000	0.000	zz	30.000	3.330	category3	gory1, category2]
add new Alternatives above this line																	
Datagrid	Calculated	Instructions	The Math Explained														

The difference is that Ratings are shown as they were input by the participant; in this case, Very Good, Good to Very Good, and Moderate for the three alternatives respectively.

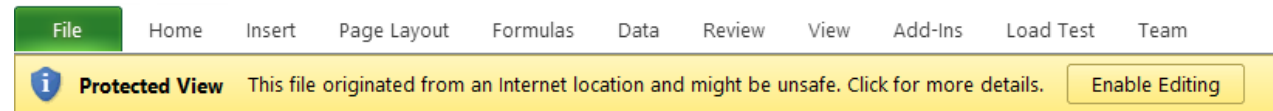The Utility Curve and Step Function data are also displayed instead of the priorities.

UPLOAD DATA GRID

After Downloading the Datagrid file of one of the participants, you can change data on the downloaded .xlsx file and upload it back to Comparion.

> Note: We recommend utilizing the Datagrid upload functionality primarily for uploading Alternative scores or judgments. Adding Alternatives and their attributes can be conveniently accomplished from the Define Model > Alternatives page.

Entering or Changing Data for Uploading: Any of the cells in **green** can be changed either manually by pasting from the clipboard, or by using an Excel macro.

In order to edit the Datagrid, you need to click the Enable Editing button found at the top:

File	Home	Insert	Page Layout	Formulas	Data	Review	View	Add-Ins	Load Test	Team

ℹ **Protected View**   This file originated from an Internet location and might be unsafe. Click for more details.   [Enable Editing]

From our example, John Doe has the following data:

						Goal											
All Methods																	
j.doe@eci.com						Pairwise	Rating	Direct	UtilityCurve	StepFunction							
Ideal mode					Local ->	0.203	0.211	0.172	0.185	0.228							
					Global ->	0.203	0.211	0.172	0.185	0.228							
#	AltGUID	Alt Name	% Minimum	% Maximum	Normalized	Total Pairwise	Ratings	Direct	Utility Curve	Step	Cost	P.Failure	att_string	att_intege	att_float	att_catege	att_multi
1.000	aeb1ac73	Alt1	1.000	0.627	0.271	0.358 0.519	Very Good	0.300	0.100	20.000	0.000	0.000	xx	10.000	1.110	category1	gory1, category2]
2.000	f4f82708	Alt2	1.096	0.687	0.297	0.392 0.249	Good to Very Good	0.500	0.250	45.000	0.000	0.000	yy	20.000	2.220	category2	gory1, category2]
3.000	068ea1b1	Alt3	1.595	1.000	0.432	0.570 1.000	Moderate	0.100	0.660	80.000	0.000	0.000	zz	30.000	3.330	category3	gory1, category2]
add new Alternatives above this line																	
Datagrid	Calculated	Instructions	The Math Explained														

We will edit the DataGrid of John Doe as follows:

- Rename Alt1 to Alt1_rename.
- Delete Alt_3.
- Add values for Costs (100, 200, 300).
- Change the Ratings (Good, Outstanding) for the two alternatives.
- Update the alternative attribute alt_string (aaa, bbb) and alt_categorical (category3,category4).
  - Note:
    - For non-categorical attributes, the values should satisfy the attribute type (string, integer, float, boolean), or

- else it will be ignored during upload.
  - For categorical attributes, if the category entered is not an existing category of the given attribute, the category will be added as a new category (in our example, category4 will be added as a new category).
  - For multi-categorical attributes, any changes will be ignored.
- Add new alternative'Alt4_new" and add 0.2 rating, 0.7 direct priority, 0.5 Utility Curve and 60 Step Function data.

The Datagrid after the changes will look like below:

							Goal												
All Methods																			
j.doe@eci.com						Pairwise		Rating	Direct	UtilityCurv	StepFunction								
Ideal mode																			
					Local ->	0.203		0.211	0.172	0.185	0.228								
					Global ->	0.203		0.211	0.172	0.185	0.228								
#	AltGUID	Alt Name	% Minimum	% Maximum	Normalized	Total	Pairwise	Ratings	Direct	Utility Curve	Step	Cost	P.Failur	att_string	att_intege	att_float	att_category	att_multi
1.000	aeb1ac73	Alt1_rena	1.000	0.913	0.477	0.358	0.519	Good	0.300	0.100	20.000	100.000	0.000	aaa	10.000	1.110	category3	:ategory2]
2.000	f4f82708	Alt2	1.096	1.000	0.523	0.392	0.249	Outstanding	0.500	0.250	45.000	200.000	0.000	bbb	20.000	2.220	category4	:ategory2]
		Alt4_new							0.200	0.700	0.500	60.000						
add new Alternatives above this line																		

Note: Only the Project Managers can manage the alternatives (add, rename, delete) and update the Costs, Risks, and alternative attributes. For Participants, only changes for the judgments can be uploaded; any other changes will be ignored during the upload. In our example, John Doe is a Project Manager of the model.
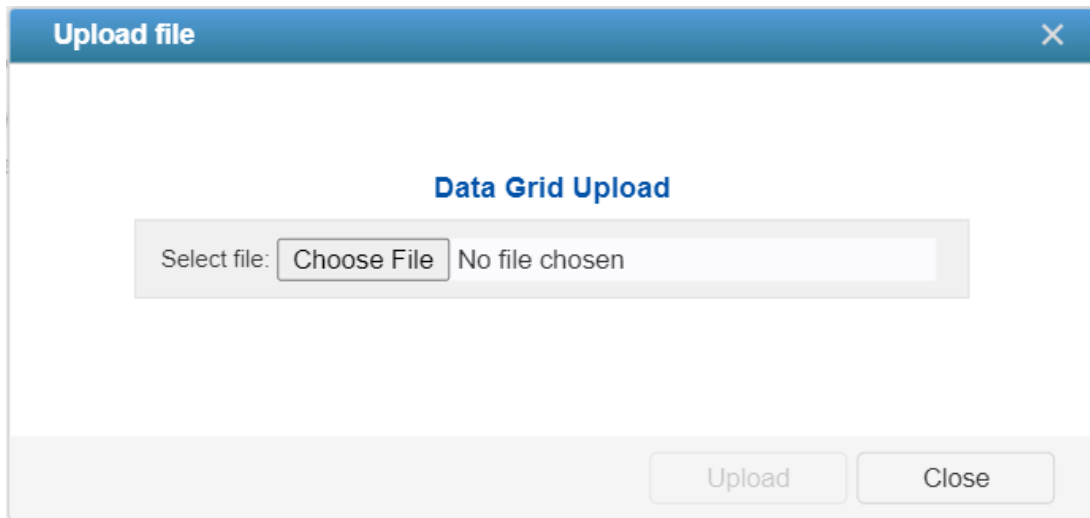
After updating the Datagrid, simply save the file and upload it back in Comparion.

To upload, select John Doe and then click upload.

Select participant or participants group: [John Doe ▾] [Unnormalized ▾] [Ideal mode ▾] [Download] [Upload] [Select Columns]

Note: Upload Datagrid only works for Participants. You cannot upload Datagrid for groups.

A model to browse for the file to upload will be displayed as shown below; click Choose File and browse for the DataGrid file, and then click the Upload button.

Upload file ✕

Data Grid Upload

Select file: [Choose File] No file chosen

[Upload] [Close]

The resulting Datagrid is shown below:

Select participant or participants group: John Doe ▼ | Unnormalized ▼ | Ideal mode ▼ | Download | Upload | Select Columns

| Alternatives | Attributes | | | | | | | Total | Goal | | | | |
	Cost	P.Failure	att_string	att_integer	att_float	att_category	att_multi		Pairwise PW	Rating R	Direct D	UtilityCurve UC	StepFunction S
1 Alt1_rename	100	0	aaa	10	1.11	category3	category1, category2	0.2055	0	Good	0.3000000119	0.1000000015	20
2 Alt2	200	0	bbb	20	2.22	category4	category1, category2	0.43523	0	Outstanding	0.5	0.25	45
3 Alt4_new	0	0		0	0	category1	category1, category2	0.3812054	0		0.200000003	0.6999999881	0.5	60

Note: The categories are populated for the newly added alternative "Alt4_new" even if they were not added by uploading the .xlsx file; this is because these are defaults for the alternative attributes, which were specified from the Alternatives page.