

Note on importing data from Excel to Visual PROMETHEE

Bertrand Mareschal – July 20, 2018

bmaresc@ulb.ac.be

Current situation (VP 1.x)

Visual PROMETHEE (version 1.x) includes an “Import...” function that is available from the File menu. It allows to import data from Excel to Visual PROMETHEE. This feature is currently limited to a small number of well-defined formats. The following limitations should be considered:

1. The file containing the data should be saved from Excel in either “.csv” or “.txt” format, with a single sheet containing the data to import.
2. It is important to check the delimiter being used and to set it correctly in the Visual PROMETHEE “Import data” dialog. To avoid any problem linked to regional settings of either Excel or Visual PROMETHEE (such as decimal point vs comma...), it is recommended to use the semi-colon (“;”) as separator.
3. It is also important to check that regional settings are consistent: for instance, if the Excel file uses decimal point (respectively comma), decimal point (respectively comma) should be set in the Visual PROMETHEE locale settings.
4. Four (4) different data formats are supported. They are described below. It is very important to fully respect the format (including blank cells and case-sensitive labels).

Examples of XLS files are available in the “.xls” file “Import File Format Examples” that is installed together with Visual PROMETHEE (available in the VP Program Files folder).

Data import formats

1. Full

Evaluation table, names of actions and criteria, as well as preference parameters, are all imported.

- Row 1:
 - Column 1: “dimensions”
 - Column 2: number of actions
 - Column 3: number of criteria
- Row 2:
 - Column 1: blank
 - Column 2: name of criterion 1
 - ...
- Row 3:
 - Column 1: “unit”
 - Column 2: unit for criterion 1
 - ...
- Row 4:
 - Column 1: “min/max”
 - Column 2: “min” or “max” for criterion 1
 - ...
- Row 5:
 - Column 1: “weight”
 - Column 2: weight of criterion 1

- ...
- Row 6:
 - Column 1: “preference function”
 - Column 2: preference function code for criterion 1 (1: Usual, 2: U-shape, 3: V-shape, 4: Level, 5: Linear, 6: Gaussian)
 - ...
- Row 7:
 - Column 1: “thresholds”
 - Column 2: “abs” (absolute value) or “rel” (percent value) for criterion 1
 - ...
- Row 8:
 - Column 1: “q”
 - Column 2: value for q for criterion 1 (this cell should not be empty even if the value is irrelevant for the selected preference function)
 - ...
- Row 9:
 - Column 1: “p”
 - Column 2: value for p for criterion 1 (this cell should not be empty even if the value is irrelevant for the selected preference function)
 - ...
- Row 8:
 - Column 1: “s”
 - Column 2: value for s for criterion 1 (this cell should not be empty even if the value is irrelevant for the selected preference function)
 - ...
- Row 9: Action 1
 - Column 1: name of action 1
 - Column 2: evaluation of action 1 on criterion 1 (numerical)
 - ...
- ...

Example:

dimensions	5	3	
	F1	F2	F3
unit	joules	CV	Euro
min/max	max	max	min
weight	1	3	2
preference function	3	6	5
thresholds	abs	abs	rel
q	1,5	2	3
p	2,5	3	4
s	3,5	4	5
A	1	6	11,5
B	2	7	12,6
C	3	8	13,8
D	4	9	14,9
E	5	10,5	16

2. Table

Evaluation table and the names of actions and criteria are imported.

- Row 1:
 - Column 1: “dimensions”
 - Column 2: number of actions
 - Column 3: number of criteria
- Row 2:
 - Column 1: blank
 - Column 2: name of criterion 1
 - ...
- Row 3: Action 1
 - Column 1: name of action 1
 - Column 2: evaluation of action 1 on criterion 1 (numerical)
 - ...
- ...

Example:

dimensions	5	3	
	F1	F2	F3
A	1	6	11,5
B	2	7	12,6
C	3	8	13,8
D	4	9	14,9
E	5	10,5	16

3. Evaluations

Evaluation table is imported (without names).

- Row 1:
 - Column 1: “dimensions”
 - Column 2: number of actions
 - Column 3: number of criteria
- Row 2: Action 1
 - Column 1: evaluation of action 1 on criterion 1 (numerical)
 - ...
- ...

Example:

dimensions	5	3
1	6	11,5
2	7	12,6
3	8	13,8
4	9	14,9
5	10,5	16

4. Criterion

A single evaluation table column is imported. The name of the corresponding criterion is selected in the “Import data” dialog.

- Row 1:
 - Column 1: “dimensions”
 - Column 2: number of actions
 - Column 3: number of criteria
- Row 2: Action 1
 - Column 1: evaluation of action 1 for the selected criterion (numerical)
- ...

Example:

dimensions	5	3
11,5		
12,6		
13,8		
14,9		
16		

Future (VP 2.x)

The 2.x version of Visual PROMETHEE, that should be released later this year, will include a much-improved integration with Excel, including more flexible import/export capabilities.