

# Equity 3.4 - CSV Specification

## 1 Introduction

This document provides a written specification of the Equity 3.4 CSV file format, providing information over and above that found in the Equity 3.4 help file.

Example models and CSV files that accompany this document are available on request from Catalyze.

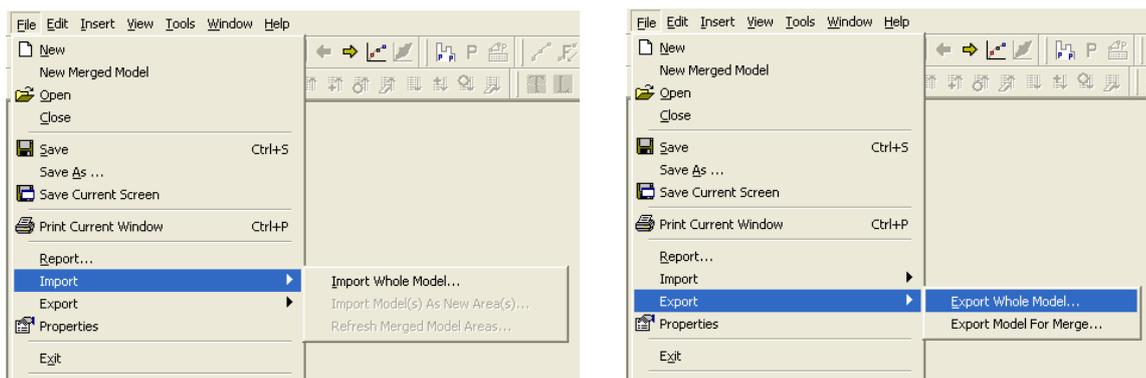
## 2 CSV Import/Export

The Comma Separate Value (CSV) file format is used by Equity 3.4 to allow data to be easily imported to and exported from Equity.

This file format is often used to construct Equity models from existing data sources allowing cost, sales, margin and other associated input data available within an organisation to be incorporated into the Equity model prior to the cost benefit analysis and/or decision conference.

The format is also used to export the Equity model data for updating such data sources or for further analysis.

CSV file import and export is available from the file menu. Here we focus on "Import Whole Model..." and "Export Whole Model..."



## 3 Example model

The most appropriate way to explain the CSV file format is by considering a simple example Equity model.

Homelec Europe, the European subsidiary of Homelec Plc, is currently reviewing its business plan and prioritising its investments for the next year. While looking at investments the board recognises that some savings should be evaluated to see if savings can be made to help fund the growth opportunities. The resulting model consists of 4 investment areas and 1 saving area:

5					Close France
4	2 New Dist				Outsource call centr
3	Full Branch	Med Office	New Assembly Line	Media Team	Stop Microwaves
2	1 New Dist	Small Office	Auto Proto	TV Team	Fridge A&P
1	Current Level	Do Nothing	Prototype	Do Nothing	Take no savings
	Spain	<b>Estonia</b>	Factory	Product Development	Cost Savings
	X ↑ ↓ ↻	C ↑ ↓ ↻	X ↑ ↓ ↻	C ↑ ↓ ↻	S ↑ ↓ ↻

Each of the options is evaluated against the following criteria:

- Costs: 2 year costs (K Euro)
- Sales 01: First year sales (K Euro)
- Sales 02: Second year sales (K Euro)
- Total Costs: Total costs = Sales 01 + Sales 02 (K Euro)
- Profits: (K Euro)
- Products: Relative score describing the extent to which this option helps bring new products to the market

## 4 CSV Format

The CSV file produced from the Homelec Europe model is given below.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	C				Cost		Sales 01	Sales 02	Total Sales	Profits	Products	POS		CUMULATIVE
2	D				Capital exp		Year 01	Year 02	Year 01	Profits rela	The exten	y of		
3	W				100		0	0	80	100	70	100		
4	A		Spain	Strategies to grow the Spar	100		0	0	100	100	0	100		1
5	L		Current Level	This represents the budget	150		500	500	1000	250	0	100		1
6	L		1 New Dist		250		1000	1000	2000	550	0	50		1
7	L		Full Branch	Create a full local presence	400		2000	2500	4500	1850	0	25		1
8	L		2 New Dist	Add a new distributor in Spa	400		200	1000	1200	850	0	100		1
9	A		Estonia	To establish a presence in E	100		0	0	50	12.5	0	100		3
10	L		Do Nothing	Do nothing in Estonia to cre	0		0	0	0	0	0	100		1
11	L		Small Office	3 staff in rented office acting	150		100	750	850	100	0	100		3
12	L		Med Office	7 staff in owned office includ	250		300	600	900	100	0	100		3
13	A		Factory	To expand the production pl	100		0	0	0	0	100	100		1
14	L		Prototype	To build a prototyping capab	50		0	0	0	0	15	100		1
15	L		Auto Proto	Acquire a semi-automated p	80		0	0	0	0	24	100		1
16	L		New Assembly Line	Re configure 20% of the ma	500		0	0	0	0	100	100		1
17	A		Product Development	Definition of possible new P	100		0	0	78.57143	40.625	100	100		3
18	L		Do Nothing	No new Product Developme	0		0	0	0	0	0	100		1
19	L		TV Team	Emply 3 people to design T	250		1500	1000	2500	350	10	100		3
20	L		Media Team	Employ 5 people to design	500		100	150	250	300	25	100		3
21	A		Cost Savings	forward by the Homelec	100		0	0	52	3.25	0	100		4
22	L		Take no savings		0		0	0	0	0	0	100		1
23	L		Fridge A&P		-75		-10	-20	-30	-2	0	100		4
24	L		Stop Microwaves		-250		-60	-80	-140	-10	0	100		4
25	L		Outsource call centr		-25		-25	-125	-150	0	0	100		4
26	L		Close France		-150		-1000	-500	-1500	-40	0	100		4
27	S	1	K Euro		100	0	0	0						
28	B	1	K Euro		100	0	0	2	1					
29	B	2	K Euro		100	0	0	2	1					
30	B	3	K Euro		100	0	0	2	3	Sales 01  +  Sales 02				
31	B	4	K Euro		100	0	0	2	1					
32	B	5	Number		100	0	0	2	1					
33	B	6	%		100	0	0	2	4					

The format is effectively split into 3 sections. These are colour-coded for clarity in the above example. The orange region denotes the names and descriptions of the criteria and forms the header for the weights and level score columns. The blue region defines the areas, levels, scores and weights of the equity model. The green region defines the criteria scales, units etc.

The first value (letter) in each line defines what the line represents, these are defined in the following table. The ordering of the CSV file is important.

Id	Description	Format
C	<p>Defines the criteria names.</p> <p>This should be the first line of the file.</p>	<p>C,,,,CostName1, CostName2,..., CostNameN,,BenefitName1,BenefitName2,...,BenefitNameM,,CUMULATIVE</p> <p>For a model with N costs and M benefits.</p> <p>CostNameN is the name of the n<sup>th</sup> cost criterion, maximum 20 characters.</p> <p>BenefitNameM is the name of the m<sup>th</sup> benefit criterion, maximum 20 characters.</p>
D	<p>Defines the criteria descriptions.</p> <p>This should be the second line of the file.</p>	<p>D,,,,CostDescription1, CostDescription2,..., CostDescriptionN,, BenefitDescription1, BenefitDescription1,...,BenefitDescriptionM,,</p> <p>For a model with N costs and M benefits.</p> <p>CostDescriptionN is the description of the n<sup>th</sup> cost criterion</p> <p>BenefitDescriptionM is the description of the m<sup>th</sup> benefit criterion.</p>
W	<p>Defines the across-criteria-weights.</p> <p>This should be the third line of the file.</p>	<p>W,,,,CostACW1, CostACW2,..., CostACWN,,BenefitACW1, BenefitACW2,..., BenefitACWM,,</p> <p>For a model with N costs and M benefits.</p> <p>CostACWN is the across-criteria-weight for the n<sup>th</sup> cost criterion (if unsure set to 0)</p> <p>BenefitACWM is the across-criteria-weight of the m<sup>th</sup> benefit criterion (if unsure set to 0)</p>
A	<p>Define an area and the areas within-criteria-weights.</p> <p>The fourth line in the file should define the first area.</p>	<p>A,,AreaName,AreaDescription,CostWCW1,CostWCW2,..., CostWCWN,,BenefitWCW1, BenefitWCW2,...,BenefitWCWM,,AreaType</p> <p>For a model with N costs and M benefits.</p> <p>AreaName represents the name of the area. If this is &gt; 20 characters it is stored as a "long name" in Equity.</p>

	<p>The level lines following an area line define the levels belonging to that area. Once all the levels are defined a new Area can be defined, followed by its levels.</p>	<p>AreaDescription is the description of the area.</p> <p>CostWCWN is the within-criteria-weight for the n<sup>th</sup> cost criterion for this area (if unsure set to 0)</p> <p>BenefitWCWM is the within-criteria-weight for the m<sup>th</sup> cost criterion for this area (if unsure set to 0)</p> <p>AreaType sets the type of the area:</p> <ul style="list-style-type: none"> <li>• 1 = Mutually Exclusive</li> <li>• 2 = Mixed</li> <li>• 3 = Cumulative</li> <li>• 4 = Saving</li> </ul>
L	<p>Defines a level and level scores.</p> <p>All the levels lines following an area definition represent the levels in that area.</p>	<p>L,,LevelName,LevelDescription,Cost1,Cost2,...,CostN,,Benefit1,Benefit2,...,BenefitM,,LevelType</p> <p>For a model with N costs and M benefits.</p> <p>LevelName represents the name of the level. If this is &gt; 20 characters it is stored as a "long name" in Equity.</p> <p>LevelDescription is the description of the level.</p> <p>CostN is the cost/score for the n<sup>th</sup> cost criterion for this level (if unsure set to 0)</p> <p>BenefitM is cost/score for the m<sup>th</sup> cost criterion for this area (if unsure set to 0)</p> <p>LevelType sets the type of the area:</p> <ul style="list-style-type: none"> <li>• 1 = Exclusive</li> <li>• 3 = Cumulative</li> <li>• 4 = Saving</li> </ul> <p>The first level in a Cumulative or Saving area must be an Exclusive level, these represent the do nothing position. In these towers all other levels must be Cumulative or Saving, respectively.</p> <p>For Exclusive levels the data represents Input Data, that's the total cost/benefit from doing this option while for Cumulative and Saving it is the incremental cost/benefit.</p> <p>Saving levels/options typically have negative costs and deliver negative benefits i.e. the save money but deliver a disbenefit.</p>

S	<p>Defines a cost criterion</p> <p>There is one of these lines for each cost criterion</p>	<p>S,N,Unit,Highest,Lowest,Decimal,ScaleType,...,</p> <p>N represents the index number of the cost, this refers to the Nth cost defined in the first line of the file.</p> <p>Unit is the unit type or measurement for the criterion (eg. £, Miles)</p> <p>Highest is the highest value for relative and fixed linear scales. This are ignored for identity scales.</p> <p>Lowest is the lowest value for relative and fixed linear scales. This are ignored for identity scales.</p> <p>Decimal is the number of decimal places displayed of this criterion.</p> <p>ScaleType is the type of scale</p> <ul style="list-style-type: none"> <li>• 0 = Identity</li> <li>• 1 = Fixed Linear</li> <li>• 2 = Relative</li> </ul> <p>Costs are typically defined as identity scales.</p> <p>Each of the cost criteria should be defined in turn followed by the benefits.</p>
B	<p>Defines a benefit criterion.</p> <p>There is one of these lines for each benefit criterion</p>	<p>B,N,Unit,Highest,Lowest,Decimal,ScaleType,CriterionType,Formula,...,</p> <p>This is the same as the definition of the cost except for the additional CriterionType and Formula values.</p> <p>N represents the index number of the cost, this refers to the Nth cost defined in the first line of the file.</p> <p>Unit is the unit type or measurement for the criterion (eg. £, Miles)</p> <p>Highest is the highest value for relative and fixed linear scales. These are ignored for identity scales.</p> <p>Lowest is the lowest value for relative and fixed linear scales. These are ignored for identity scales.</p> <p>Decimal is the number of decimal places displayed for this criterion.</p> <p>ScaleType is the type of scale</p> <ul style="list-style-type: none"> <li>• 0 = Identity</li> <li>• 1 = Fixed Linear</li> <li>• 2 = Relative (if in doubt use Relative)</li> </ul>

		<p>CriterionType is the type of criterion</p> <ul style="list-style-type: none"><li>• 1 = Manual (if in doubt use Manual)</li><li>• 2 = Risk Adjusted (Negative Benefit)</li><li>• 3 = Formula</li><li>• 4 = Risk Adjusted (Multiplicative)</li></ul> <p>Formula defines a formula, which can be calculated from a combination of costs and sales criteria scores. Basic operators are allowed and the Cost and Benefits are defined by their names and delimited by the   (pipe) character. For example</p> <p> BenefitName1 + BenefitName2 </p> <p>(10* BenefitName1 )/( CostName1 *1000)</p>
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