

InFocus Document Using Rate Tables



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1 Introduction

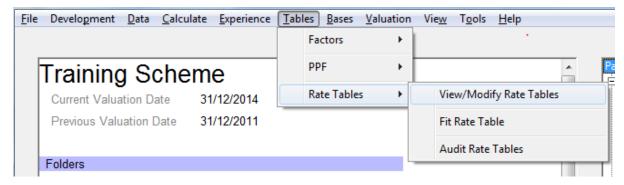
This document is based on V9.25 of SuperVal. Any screenshots from previous versions are not materially different. It is relevant for the actives, deferreds and pensioners modules.

Rate Tables are defined in SuperVal and can either be entered manually or imported from Excel. Rate Tables can also be exported out of SuperVal to either a .csv file or an .xls file. The purpose of this document is to explain how this is done.



2 Setting up Rate Tables

In SuperVal V9.20, the Rate Table functionality is found under: Tables > Rate Tables > View/Modify Rate Tables from the Main Menu.



This will open the Rate Table Browser screen. The top node shows the Decrement File that is being displayed. Each type of Rate Table has a parent node with a description of the Rate Tables below. Rate Tables are displayed in the following order:

- Death Rates
 - Age
 - Age and Service
 - Select
- Mortality Improvement Rates
 - Age and Term from Base Year
- III Health Rates
 - Age
 - Age and Service
- Leaving Service Rates
 - Age
 - Age and Service
- Retirement Rates
 - Age
 - Age and Service
 - Age and Retirement Age



- Promotional Salary Scales
 - Age
 - Service
- Durational Leaving Service Weights
- Proportions Married
- Age Difference (primary-spouse) Tables
- New Entrant Tables
 - Proportions
 - Salaries
- Contributions Salary Bands
 - Duration related
- Death Annuities
- Ill Health Annuities
- Leaving Service Annuities
- Retirement Annuities
- Age Related Miscellaneous Factor tables
- Age Related Factor tables
- Durational Related Miscellaneous Factor tables
- 2-Dimensional Miscellaneous Factor tables.

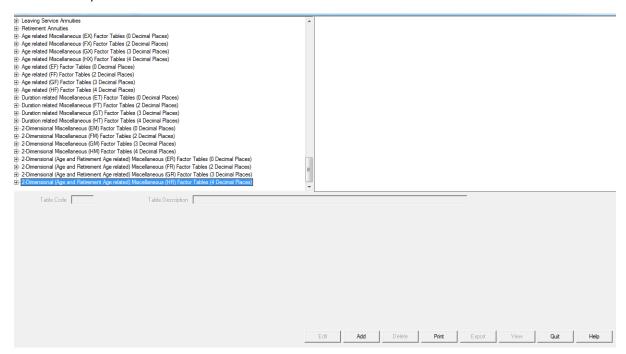


Not all tables are available to all users. Within each type Rate Tables are ordered by Rate Table number.

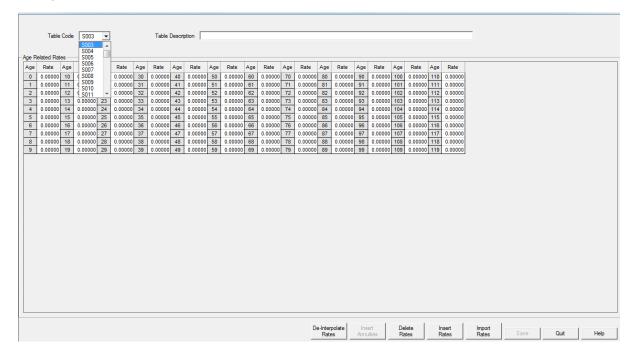


2.1 Add or Edit a Rate Table

Select the class of decrement corresponding to your new table (making sure if importing that the type of table you have selected has a format which will correspond with the format of your saved rates in Excel) and then click the "Add" button towards the bottom of the screen.



This opens the Rate Table screen.



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Using Rate Tables



Select the Table Number that you wish to use from the drop-down list. Note the list will only display numbers that are not already in use. Enter in a description for the table.

The user then has the option of either entering the rates manually or importing the rates from elsewhere.

If entering manually, enter the decrements as required. If using the Import functionality, click the "Import Rates" button. This opens up the Windows file browser. Select the required file in the browser which will be found in the Library folder and click "Open". The imported rates will be shown in red for the user to review. Click "OK" if you do not wish to make any further changes to these rates. Then click "Save" on the Add/Edit Rate Tables screen.

The new table will now be available for use in the valuations.



Format of Excel rate table for importing

If importing a table from Excel, then the Excel rate table should be in a format similar to the table being set up.

For one-dimensional decrement tables, Column 'A' represents age (or duration) and 'B' is the rate applying at each age (or duration).

	Α	В
1	0	0.0000
2	1	0.0001
3	2	0.0002
		•••
120	119	0.7000
121	120	0.9000

If you wish, you may include a descriptive Header as the first record.

Note that these rates have 4 decimal places and therefore you would be able to import them into a SuperVal rate table with format F5.4 or wider. (See the Allowable Tables below for the different formats of SuperVal rate table types.) If you import rates into a table with a format that has less decimal places than the source file, the values will be rounded to fit.

Once the rates are in the correct format then select 'File' then 'Save As'. The file saved must be saved as a file type 'Formatted Text (Space delimited)' or 'Text (Tab delimited)'. Saving as this type of file will automatically give the filename the extension .prn. Once the table has been saved, close and return to SuperVal.

For two-dimensional tables, SuperVal will import directly from Excel (i.e. without saving as a Formatted Text (Space delimited) file) and will assume age goes down the table and duration goes across the table. Where the data in Excel has additional decimal places, SuperVal will round the figure appropriately.

Alternatively you can use the named range functionality in SuperVal.

You may also use the "Import" facility when editing an existing table.

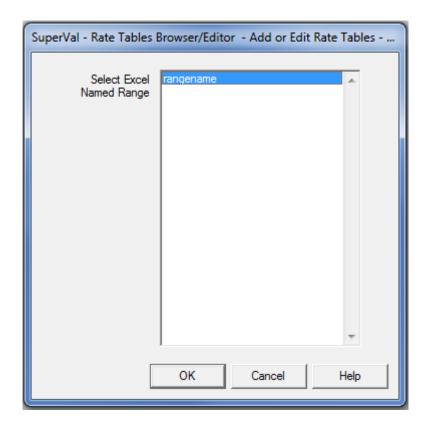
Using a Named Range in Excel

Alternatively you can name the range of cells in the Excel worksheet which correspond to the rate table which is to be imported.

This provides the flexibility to create tables anywhere in the spreadsheet and also to have multiple tables in one spreadsheet. The Excel workbook should be saved in the standard .xls format.



When importing rate tables from an Excel workbook which contains one or more named ranges, SuperVal will prompt the user to select the appropriate range:

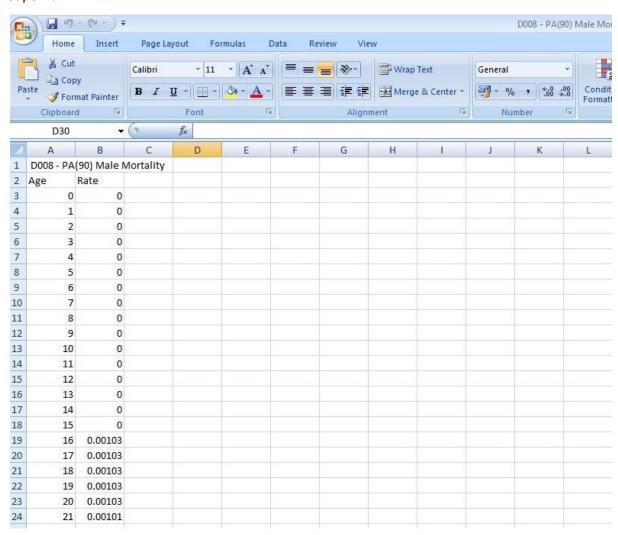




2.2 Exporting Rate Tables

SuperVal V9 was extended to include the ability to export a rate table to Excel.

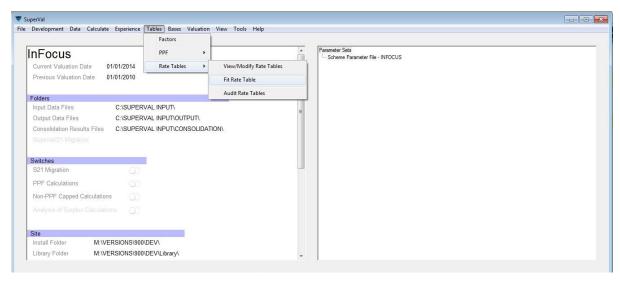
Within the Rate Table menu select the Rate Table you wish to Export and then click "Export". The user should then select whether to export as a .csv file or an .xls file and type in a file name for the exported rate table file and click "OK". The exported Rate Table will be found in the Library folder of SuperVal.





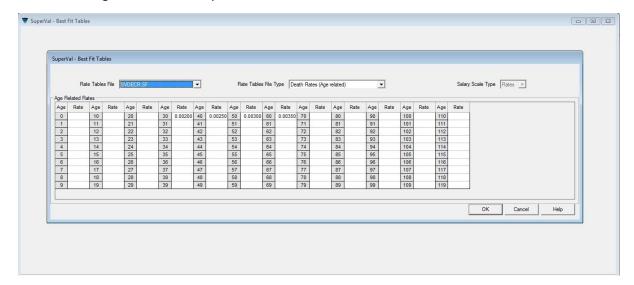
2.3 Fit a Rate Table

V9.00 allows the user to search the existing Rate Tables before entering a new one to see if it already exists. This is accessed from Tables > Rate Tables > Fit Rate Table.



The user should select the type of Rate Table to search i.e. death, retirement and then type a selection of rates into SuperVal and click "OK". The minimum points of reference is 4.

SuperVal will return a list of best fit tables with the required Age Rating and % Rating, along with the rates that using this table would produce.





2.4 Allowable Tables

The formats for the different types of rate tables are set out below. The format is defined as the number of figures followed by the number of figures after the decimal place ie F5.3 format is a five digit number with last three digits being decimals.

Table 1 – Rate Table Formats

Prefix	Description	Format	Range
D	Death decrement rates (age related)	F5.5	0 to 0.99999
DM	Death decrement rates (age and service related)	F5.5	0 to 0.99999
DS	Death decrement rates (select)	F5.5	0 to 0.99999
1	III health decrement rates (age related)	F5.5	0 to 0.99999
IM	III health decrement rates (age and service related)	F5.5	0 to 0.99999
L	Withdrawal decrement rates (age related)	F5.5	0 to 0.99999
LM	Withdrawal decrement rates (age and service related)	F5.5	0 to 0.99999
MM	Mortality Improvement Rates (age and term from base year related)	F10.9	0 to 1.1
R	Retirement decrement rates (age related)	F5.5	0 to 0.99999
RM	Retirement decrement rates (age and service related)	F5.5	0 to 0.99999
RR	Retirement decrement rates (age and retirement age)	F5.5	0 to 0.99999
S	Salary Scale (age related)	F5.5	-0.9 to 0.99999
ST	Salary Scale (service related)	F5.5	-0.9 to 0.99999
Т	Duration weighting	F6.4	0 to 99.9999
Н	Proportion Married	F5.4	0 to 1
AD	Age Difference Tables	F1.0	0.9 to 9
CM	Contributions Salary Bands (Duration related)	F7.0	0 to 9999999
NE	New Entrants Proportions	F6.0	0 to 999,999
NS	New Entrants Salaries	F7.0	0 to 9,999,999
DA	Death Annuities	F5.3	0 to 99.999
IA	III health Annuities	F5.3	0 to 99.999
LA	Leaving Service Annuities	F5.3	0 to 99.999
RA	Retirement Annuities	F5.3	0 to 99.999



There are miscellaneous tables as follows:

Table 2 – Miscellaneous Rate Table Formats

Prefix	Description	Format	Range
EX	Age related miscellaneous tables 0 dp	F7.0	0 to 9,999,999
FX	Age related miscellaneous tables 2 dp	F9.2	0 to 9,999,999.99
GX	Age related miscellaneous tables 3 dp	F10.3	0 to 9,999,999.999
НХ	Age related miscellaneous tables 4 dp	F11.4	0 to 9,999,999.9999
EF	Age related tables 0 dp	F7.0	0 to 9,999,999
FF	Age related tables 2 dp	F9.2	0 to 9,999,999.99
GF	Age related tables 3 dp	F10.3	0 to 9,999,999.999
HF	Age related tables 4 dp	F11.4	0 to 9,999,999.9999
EM	2 Dimensional tables 0 dp	F7.0	0 to 9,999,999
FM	2 Dimensional tables 2 dp	F9.2	0 to 9,999,999.99
GM	2 Dimensional tables 3 dp	F10.3	0 to 9,999,999.999
НМ	2 Dimensional tables 4 dp	F11.4	0 to 9,999,999.9999
ET	Duration related tables 0dp	F7.0	0 to 9,999,999
FT	Duration related tables 2 dp	F9.2	0 to 9,999,999.99
GT	Duration related tables 3 dp	F10.3	0 to 9,999,999.999
HT	Duration related tables 4 dp	F11.4	0 to 9,999,999.9999

The miscellaneous tables can be used for any purpose. However, SuperVal will require the use of a certain type of rate table in two areas. These are on the Slices > Tiers and relate to:

- Accelerated Service tables must be an 'ET' type rate table.
- Service Related Accrual must be a 'ET', 'FT', 'GT' or 'HT' type rate table.