



InFocus Document

Importing Data into SuperVal



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# 1 Introduction

This document covers importing data into SuperVal for all modules.

This document explains how to import data into SuperVal from Excel or csv files and points out some of the potential issues that may arise during this process.

This document is based on Version 9.30 of SuperVal. Any screenshots included from previous versions of SuperVal are not materially different from those in V9.30.

## 2 Data

Data can be imported into SuperVal either via an Excel file or in a CSV (comma delimited) format.

There is flexibility in naming the Standard data fields in the data files (Excel or CSV). SuperVal will attempt to map these names to the Standard pre-defined names.

SuperVal does have pre-defined names if the User wishes to use these.

In addition, the User can (not essential) insert the type of format for each column in Row 2 – the available format types are:

- Character: C
- Total Numeric: N (i.e. the sum if grouped e.g. salaries, contribution accounts)
- Average Numeric: n (i.e. the average if grouped e.g. Contribution Rate or Accrual Rate or Reversion %)
- Total Numeric Averaged: A (i.e. the value is an average and needs to be multiplied by NOM for a Total Numeric)
- Date: dd/mm/yyyy; ddmmyyyy; mm/dd/yyyy; mmdyyyyy

Examples of how data can be imported into SuperVal, either in an Excel format or a CSV format:

### 1) Data with no format types in row 2

	A	B	C	D	E	G	H	I	J	K	N	O
1	Name	Sex	Date of Birth	Date joined company	Date joined Scheme	Salary	Previous salary	FPS_2014	ACW	Category	Pre 88 GMP	Post 88 GMP
2	Member 1	F	01/01/1955	01/01/1980	01/01/1980	95,000	50,000	82,500	50,000	Staff	2500	3000
3	Member 2	M	01/01/1955	01/01/1980	01/01/1980	95,000	50,000	82,500	50,000	Staff	2500	3000
4	Member 3	F	01/07/1960	01/03/1985	01/03/1985	80,000	50,000	75,000	30,000	Staff	1500	2000
5	Member 4	M	01/07/1960	01/03/1985	01/03/1985	80,000	50,000	75,000	30,000	Staff	1500	2000
6	Member 5	F	01/01/1965	01/06/1990	01/06/1990	75,000	50,000	71,250	20,000	Staff	0	1000
7	Member 6	M	01/01/1965	01/06/1990	01/06/1990	75,000	50,000	71,250	20,000	Staff	0	1000
8	Member 7	F	01/07/1970	01/09/1995	01/09/1995	92,500	50,000	87,640	18,000	Staff	0	750
9	Member 8	M	01/07/1970	01/09/1995	01/09/1995	92,500	50,000	87,640	18,000	Staff	0	750

### 2) Data using pre-defined names and format types

	A	B	C	D	E	F	G	H	I	J	N	O	P	Q	R
1	Name	Sex	DOB	DJS	DJF	Cat	Sal	PSAL	FPS_2014	ACW	GMP0	GMPE0	CARE_Pre97	CARE_Post97	
2	c	c	dd/mm/yyyy	dd/mm/yyyy	dd/mm/yyyy	c	N	N	N	N	N	N	N	N	
3	Member 1	F	01/01/1955	01/01/1980	01/01/1980	A	95,000	50,000	82,500	50,000	2500	3000	0	0	z
4	Member 1	M	01/01/1955	01/01/1980	01/01/1980	A	95,000	50,000	82,500	50,000	2500	3000	0	0	z
5	Member 2	F	01/07/1960	01/03/1985	01/03/1985	B	80,000	50,000	75,000	30,000	1500	2000	0	0	z
6	Member 2	M	01/07/1960	01/03/1985	01/03/1985	B	80,000	50,000	75,000	30,000	1500	2000	0	0	z
7	Member 3	F	01/01/1965	01/06/1990	01/06/1990	C	75,000	50,000	71,250	20,000	0	1000	0	0	z
8	Member 3	M	01/01/1965	01/06/1990	01/06/1990	C	75,000	50,000	71,250	20,000	0	1000	0	0	z
9	Member 4	F	01/07/1970	01/09/1995	01/09/1995	D	92,500	50,000	87,640	18,000	0	750	0	0	z
10	Member 4	M	01/07/1970	01/09/1995	01/09/1995	D	92,500	50,000	87,640	18,000	0	750	0	0	z

Notes:

- SuperVal will require: NAME, SEX, Category (or CAT) and Date of Birth (or DOB) - in Row 1 data file for the Data Build to work.

- The pre-defined names are listed in the table below.
- These names can be inserted in Row 1 in any order.
- A name that is not found in the list above will be automatically prefixed with the letter 'q' and be treated as a user defined variable.
- If a Standard Data Variable name is found within a type of membership where that variable does not apply, e.g. 'SAL' found in a Deferreds Data Build, it will be prefixed with a 'q' and treated as a user defined variable.
- The above list does not include static variables such as salary frequency etc. The default value(s) will be retained – if these require changing, edit the data format by **Data > Format**. Note: such changes will be lost if Data build is redone.

## 2.1 SuperVal Standard Data Variable Names

Actives	Deferreds	Pensioners	Type	Description
NOM	NOM	-	N	Number of members to be used if there is grouped data
NAME	NAME	NAME	C	Name of each member (numbers can be used)
SEX	SEX	SEX	C	Sex of the member, must be "M" or "F"
CAT	CAT	CAT	C	Category of membership specified. Can be defined using up to 16 characters e.g. Staff, A1 etc
DOB	DOB	DOB	D	Date of Birth
DJS	-	-	D	Date Joined Company i.e. date joined for company
DJF	-	-	D	Date Joined Scheme i.e. date joined for pensionable
MOE	MOE	-	C	Mode Of Exit from statuses e.g. death, retirement
DOE	DOE	-	D	Date Of Exit (actives)
BOE*	BOE*		N	Lump Sum Benefit on Exit
PSAL	-	-	N	Previous Salary
SAL	-	-	N	Current Salary

ACW	ACW	-	N	Accrued Contributions (actives) or Underpin (deferreds)
ACWO*	-	-	N	Accrued Contributions without Interest
EACWO*	-	-	N	Accrued Employer Contributions without Interest
GMPO	GMPO	GMPO	N	Pre 1988 GMP as at the Valuation Date
GMPEO	GMPEO	GMPEO	N	Post 1988 GMP as at the Valuation Date
-	-	SDOB	D	Spouse's Date of Birth
-	LD	LD	D	Leaving Service Date
-	-	DPC	D	Date First Pension Commenced e.g. retirement date
-	-	DOT	D	Date Pension Ceased i.e. exit date from deferred or pensioner status
		MOT	C	Mode Ceased Pension
	TOP	TOP	C	Type of PUP
		BOT*	N	Benefit upon Termination
		TPP*	N	Total Pension Paid
-	-	MOT	C	Mode Ceased Pension
-	-	-	N	Lump Sum on Death in Deferment
		MEMORSP	C	Member or Spouse
q__	q__	q__	N/C/D	User Defined Variable- default row

Table 1

\*Used for Analysis of Surplus only

## 2.2 Data for Analysis of Surplus (AOS)

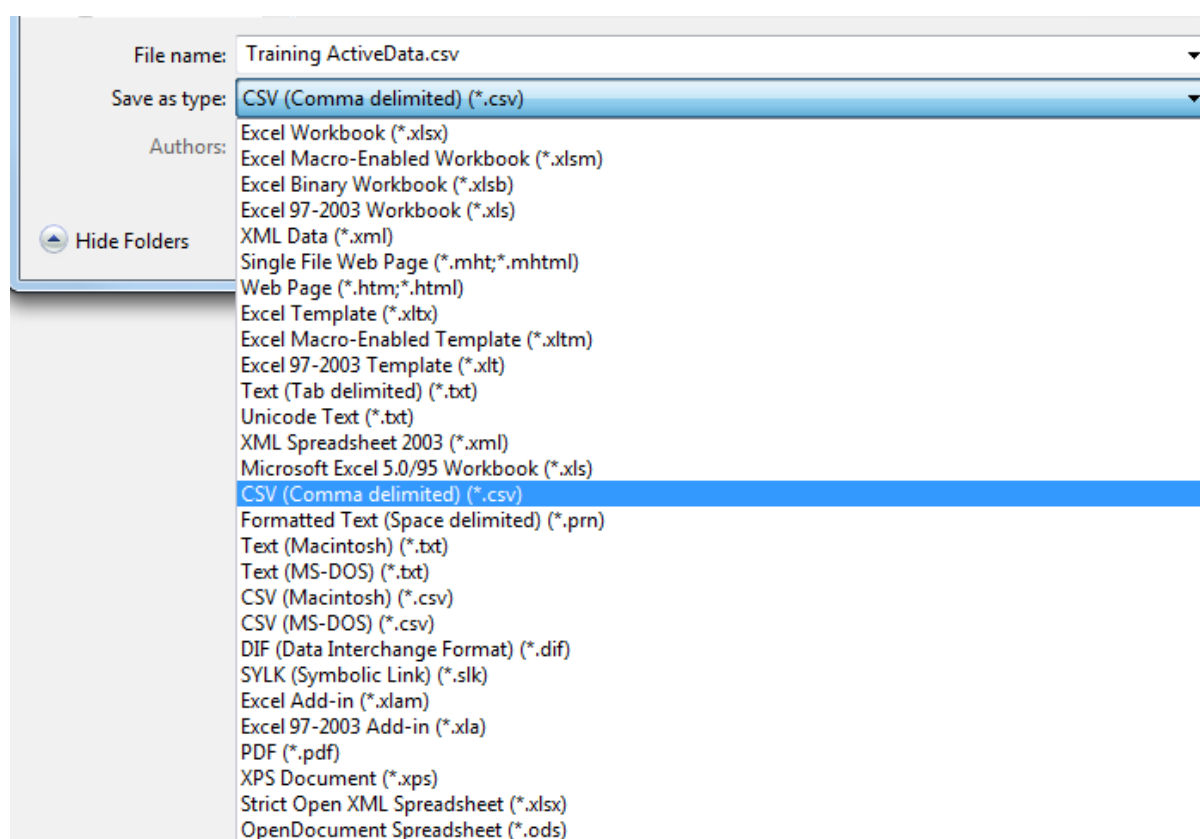
As the previous valuation results have to be rolled forward to the current valuation date and compared with the current valuation results, all the member data input to the previous and current valuations is required. This data is held at individual member data level within member status (Actives, Deferreds and Pensioners).

The AOS data must include data as at the current valuation date and also as at the previous valuation date. The data required is the same data items for the current valuation and the previous valuation.

The columns for the previous valuation data file will have the names of the variables prefixed by '#'.

## 2.3 CSV Files

Excel supports the CSV format. In order to save a file in this format, click on **File > Save As** – you will see the following dialogue:



Select 'Save as type' as CSV (Comma delimited), specify the name of the file and click **Save**. The CSV file should be saved in your designated Input folder since **Data > Data Build** will only allow you to select files from here.

The names in Row 1 may be specified in any order and in upper or lower case.

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Before you save and close the document, ensure that you have selected a cell within the block of your data. Excel will then save all data up to the next blank row / column. (It will save the numbers – not the formulae, and will not save data on other worksheets).

Note that you must remove thousand separators from numerical cells prior to saving in CSV format. This is because both the CSV delimiter and the thousand separators are commas and it is not possible to distinguish one from the other when reading the CSV file.

Other features of a typical spreadsheet are usually acceptable and Excel disregards them when writing to CSV files.

If you want to insert a row containing descriptions of data in each column, this can be maintained in the Excel file but **must be removed prior** to saving the CSV file.

Finally, once you have saved the CSV file, ensure you close it before importing it into SuperVal.



## 3 Data Build

### 3.1 Mapping Data Fields

A user can either use the Standard SuperVal Names described in Section 2.2 above, or there is now greater flexibility in the naming of the Standard field Names in the .csv /Excel member data file. The pre-defined Standard data names (e.g. DOB, DJF etc.) will continue to work best but names such as Date of Birth, Date Joined Scheme etc. can be used in the data file and SuperVal will attempt to map these names to the Standard pre-defined names.

SuperVal will then allow Users to map (or un-map, or re-map) any fields that were not mapped as Standard Fields (or were incorrectly mapped as a Standard field or mapped as the wrong Standard Field) when carrying out the data build.

The required format for data fields i.e. Standard Numeric (N) and Character (C) fields will be assumed. The format will be “guessed” for all Date fields or Non-Standard Data fields, if the format line (2<sup>nd</sup> row) is not populated. These can then be reformatted using the “Change Data Field Type” button.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Name	Sex	Date of Birth	Date joined Company	Date joined scheme	Category	Salary	Previous Salary	final Pensionable_2014	Accrued Cons	Transfer Date	Credited Years	Pre 88	Post 88	CARE	
2	c	c	dd/mm/yyyy	dd/mm/yyyy	dd/mm/yyyy	c	N	N	N	N	dd/mm/yyyy	N	N	N	N	
3	Member 1	F	01/01/1955	01/01/1980	01/01/1980	A	95,000	70,000	82,500	50,000	01/01/1990	12	2500	3000	0	z
4	Member 2	M	01/01/1955	01/01/1980	01/01/1980	A	95,000	70,000	82,500	50,000	01/01/1990	12	2500	3000	0	z

## 3.2 Using Data > Data Build

- On clicking Data > Data Build, User be presented with the dialogue similar to the one below:

1. Format of Source File: Excel File, CSV File, Excel File

2. Data Build Source File: Importing Data.xlsx

3. Excel Sheet Name: Sheet1

4. Input Type: Actives, Deferreds, Pensioners

5. ☐ Using Grouped Data or will use the New Entrant Replacement Model

6. ☒ Allow SuperVal to guess some suggested Standard Field mappings

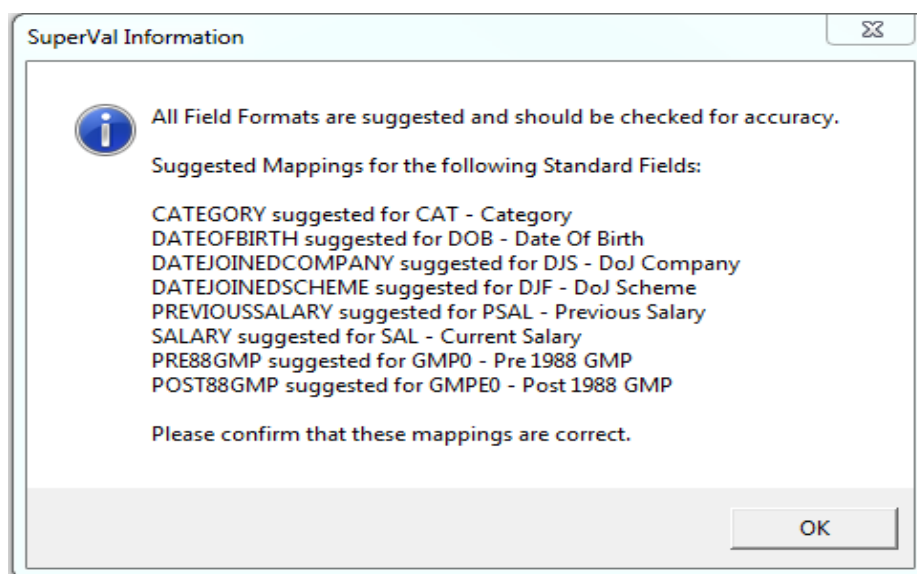
7. Edit Source File, Import Field Mappings

Back, Next, Cancel, Help

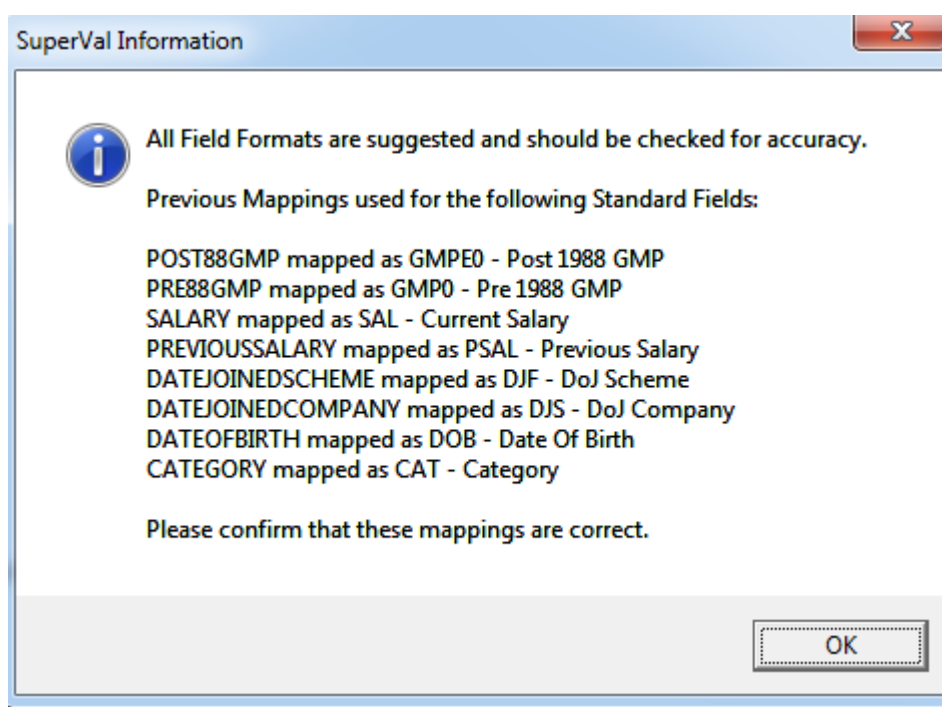
- Choose between .CSV or Excel file
- SuperVal will automatically locate the CSV file / Excel from the designated Input folder. (File>Properties). If there is more than one CSV / Excel file present in this folder, the User will be offered a dropdown menu to select the relevant file.
- Excel files can contain more than one sheet of data – select the sheet required
- Select whether Membership Type is Actives, Deferreds or Pensioners
- If un-ticked, columns which are numeric (or 2<sup>nd</sup> row has “n” in the format line) will be assumed to be the total value for that member for those columns. If ticked (i.e. if using grouped data or New Entrant Replacement Model) the numeric columns will be assumed to be the average value for that group of members.

6. If names such as Date of Birth, Date Joined Scheme etc. are being used in the .csv / Excel data file, select the field "Allow SuperVal to "guess" some suggested Standard Field mappings". SuperVal will attempt to map these names to the Standard pre-defined names.

E.g. when selecting "Allow SuperVal to "guess" some suggested Standard Field mappings" followed by "Next", a warning dialogue box will be displayed, such as the following:



If a data build has already been done for this scheme, previous mappings are assumed (but can be amended). A warning dialogue box will be displayed e.g.:



7. If a data build has already been done previously for another scheme, the User can import Field Mappings from the previous folder.
- After selecting “Next” SuperVal will then list the fields present in the CSV file (**‘Included’**), alongside standard fields that the User may also like to include (**‘Not Present’**). The User is given the option of editing the CSV / Excel file (**‘Edit Source’**) should they decide to modify their current data file.

*E.g. In this particular case, they wish “ACCRUEDCONTRIBUTIONS” to be mapped to “ACW” (accrued contributions with interest).*

*Select: User Defined Field in Data Source “ACCRUEDCONTRIBUTIONS”; Standard Field Not Present “ACW” and click on “Map Field as Standard” button.*

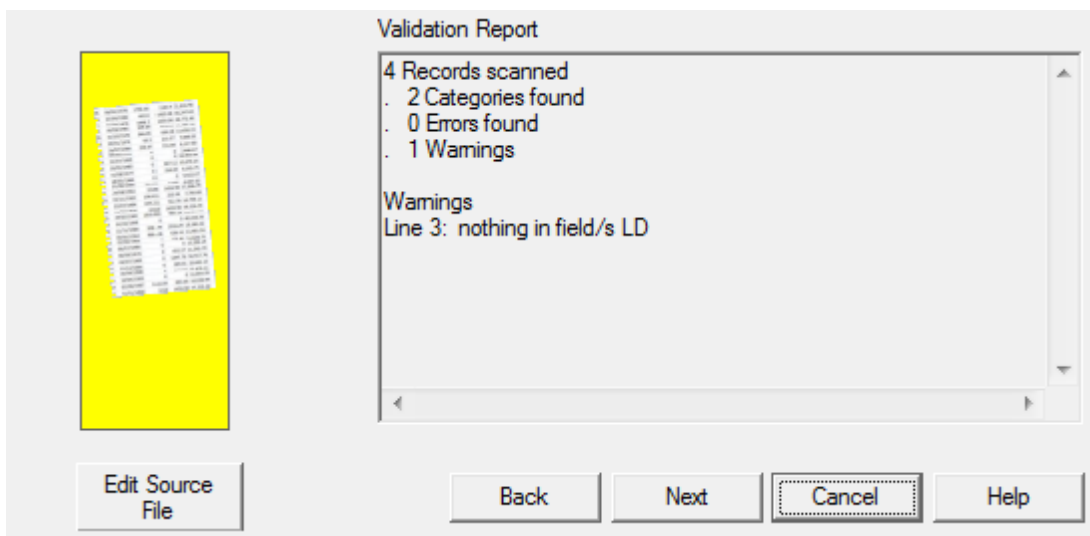
The screenshot displays the SuperVal data import interface. It features three main panels for field management:

- Standard Fields in Data Source:** A table listing standard fields with columns for Data Field Name, SuperVal Field Name, Field Description, and Field Type. Fields include NAME, SEX, DATEOFBIRTH, DATEJOINEDCOMPANY, DATEJOINEDSCHEME, CATEGORY, PREVIOUSSalary, SALARY, PRE88GMP, POST88GMP, and LCOL.
- User-Defined Fields in Data Source:** A table listing user-defined fields. The 'ACCRUEDCONTRIBUTIONS' field is highlighted in red, with its field type set to 'Total Numeric'.
- Standard Fields Not Present:** A table listing standard fields not present in the source. The 'ACW' field is highlighted in red, with its field type set to 'Total Numeric'.

Additional interface elements include:

- Payment Frequency of Salaries:** Radio buttons for Annual (selected), Semi-Annual, Quarterly, Monthly, Lunar-Monthly, Fortnightly, and Weekly.
- Buttons:** 'Edit Source File', 'Map Field as Standard' (highlighted with a red box), 'Remove Mapped Field', 'Back', 'Next', 'Cancel', and 'Help'.
- Checkbox:** 'Include Warnings of Blank Numeric Fields'.

- SuperVal will check the data file for any possible errors or warnings it may encounter when performing the Data Build. If errors are present, the Data Build will not proceed until they have been corrected by the user. To do so, the User is given the option of editing the data file, via **Edit Source File**.



The Validation Report dialog box displays the results of a data validation process. On the left, there is a yellow rectangular area containing a small image of a document. The main text area on the right shows the following summary:

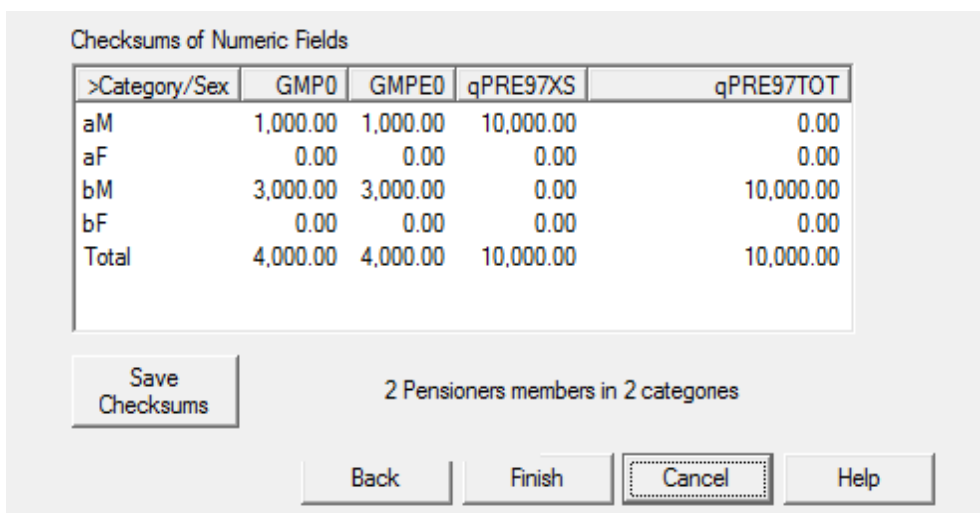
- 4 Records scanned
- 2 Categories found
- 0 Errors found
- 1 Warnings

Below the summary, a section titled 'Warnings' lists the following message:

Line 3: nothing in field/s LD

At the bottom of the dialog, there are four buttons: 'Edit Source File', 'Back', 'Next', and 'Cancel' (which is highlighted with a dashed border), and a 'Help' button.

- SuperVal will then check the sums in the data file. This time, the User is given the option of saving the 'Checksums' output in a separate CSV file, which will be saved in the Input folder. The Checksums will include all Total Numeric Fields Types.



The Checksums of Numeric Fields dialog box displays a table with the following data:

>Category/Sex	GMP0	GMPE0	qPRE97XS	qPRE97TOT
aM	1,000.00	1,000.00	10,000.00	0.00
aF	0.00	0.00	0.00	0.00
bM	3,000.00	3,000.00	0.00	10,000.00
bF	0.00	0.00	0.00	0.00
Total	4,000.00	4,000.00	10,000.00	10,000.00

Below the table, there is a 'Save Checksums' button and a status message: '2 Pensioners members in 2 categories'. At the bottom, there are four buttons: 'Back', 'Finish', 'Cancel' (highlighted with a dashed border), and 'Help'.

- Clicking on the 'Cancel' button will abort the procedure.
- Click 'Finish'. SuperVal will navigate the User to the validation page.

File Export Help

Parameters Ranges

Valuation Dates

Previous Valuation Date Previous Valuation Date 01/01/2016

Current Valuation Date Current Valuation Date 01/01/2019

Files

Validation Data File(s) Importing Data {Sheet1}.dat

Data Format <Act> Data Build of Importing Data.xlsx {Sheet1}

Output Options

☒ Only Records with Errors or Warnings Listed ☒ Include Warnings of Blank Numeric Fields

[unnamed] Run Save As Save Quit Help

- Reasonable ranges can be specified for the Numeric Data Fields on the “Ranges” tab.

File Export Help

Parameters Ranges

Import Validation Ranges

Validation Parameters

Category	Default
Min. Age (Male)	15
Max. Age (Male)	65
Min. Age (Female)	15
Max. Age (Female)	65
Min. Salary	10000
Max. Salary	120000
Min. qFPS_2014	0
Max. qFPS_2014	1000000
Min. qCREDITEDYEARS	0
Max. qCREDITEDYEARS	30
Min. qCARE_PRE97	0
Max. qCARE_PRE97	100000
Min. qCARE_POST97	0
Max. qCARE_POST97	100000

[unnamed] Run Save As Save Quit Help

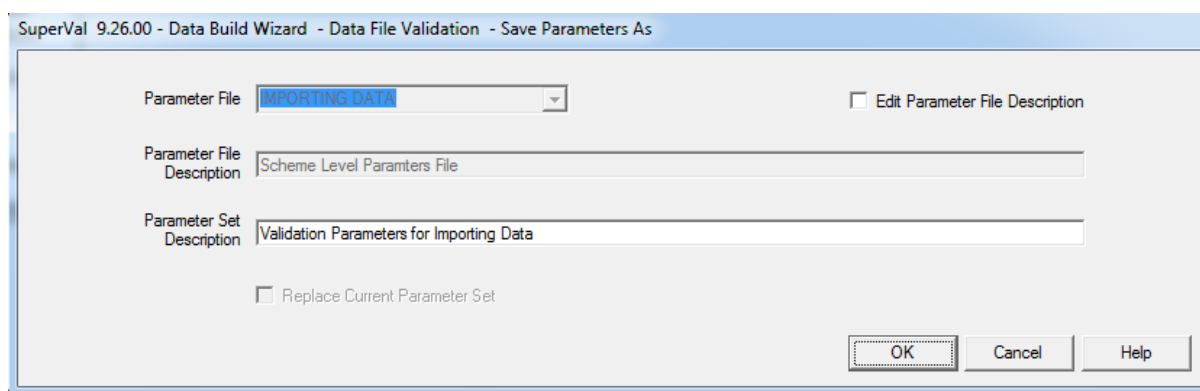
These Validation Ranges are stored as part of the Data Format (created when doing a Data Build).

The Import Validation Ranges allows Users to copy ranges used previously for the Membership class. If the User has previously set up Validation Ranges for running Data Validation, these can be copied as the starting point for current Validation Ranges. e.g.

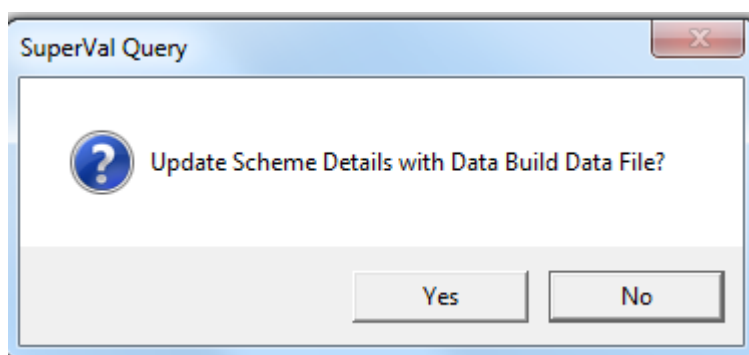
- Data Build Actives 2018.csv, set Validation ranges when validating
- Data Build Actives 2019.csv, copy Validation Ranges used in Data Build of Actives 2018.csv.

This avoids replication of setting Validation Ranges again, as Actives 2018.csv and Actives 2019.csv will usually have the same user-defined fields.

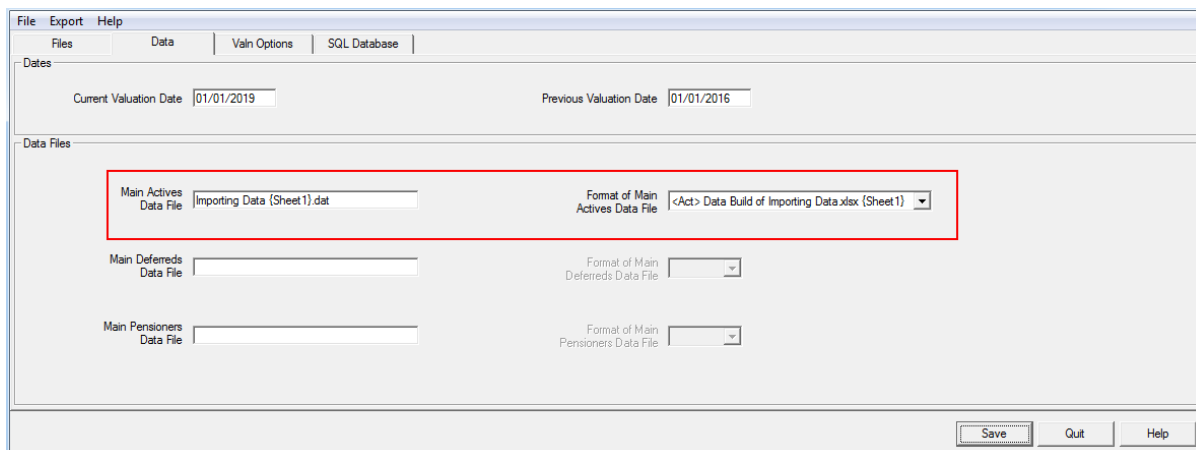
- Clicking on “Run” will run the data validation



- SuperVal will then ask the User if the Scheme Details should be updated with the latest data build file.



If “Yes” is selected the Scheme Details will be updated as shown below:



The screenshot shows the 'Data Files' section of the SuperVal application. The 'Main Actives Data File' is set to 'Importing Data (Sheet1).dat' and the 'Format of Main Actives Data File' is set to '<Act> Data Build of Importing Data.xlsx (Sheet1)'. The 'Main Deferreds Data File' and 'Main Pensioners Data File' are both empty. The 'Format of Main Deferreds Data File' and 'Format of Main Pensioners Data File' are both set to a default format. The 'Current Valuation Date' is '01/01/2019' and the 'Previous Valuation Date' is '01/01/2016'. The 'Save', 'Quit', and 'Help' buttons are at the bottom right.

Field	Value
Current Valuation Date	01/01/2019
Previous Valuation Date	01/01/2016
Main Actives Data File	Importing Data (Sheet1).dat
Format of Main Actives Data File	<Act> Data Build of Importing Data.xlsx (Sheet1)
Main Deferreds Data File	
Format of Main Deferreds Data File	
Main Pensioners Data File	
Format of Main Pensioners Data File	



### 3.3 Member Data File

SuperVal will create a data file with the same name as the Excel / CSV file, to your current input folder and with a \*.DAT extension.

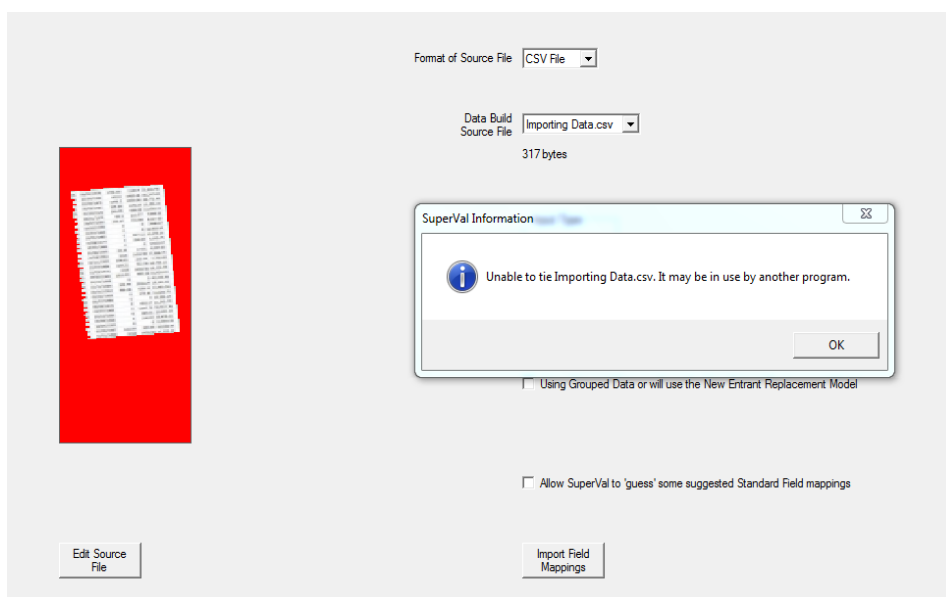
If the User wants to keep a previous version of these files, they must rename the files prior to reusing Data > Data Build.

### 3.4 Recommended Practice

Use distinct names for the Excel / CSV files containing each type of member data i.e. actives, deferreds and pensioners.

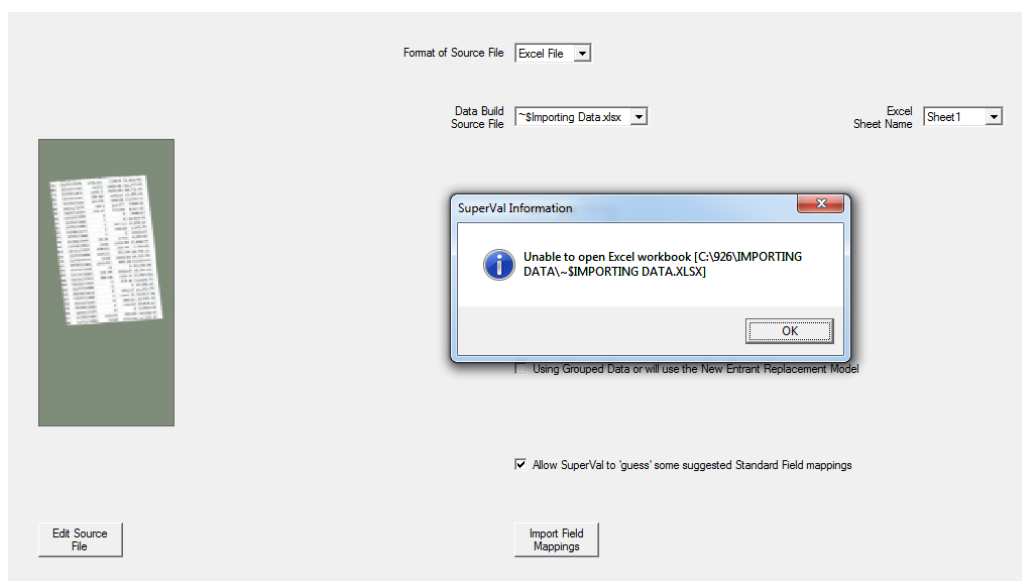
### 3.5 Troubleshooting/Getting the Data File Right

An explanation of some of the error messages associated with setting up data in SuperVal is given below:

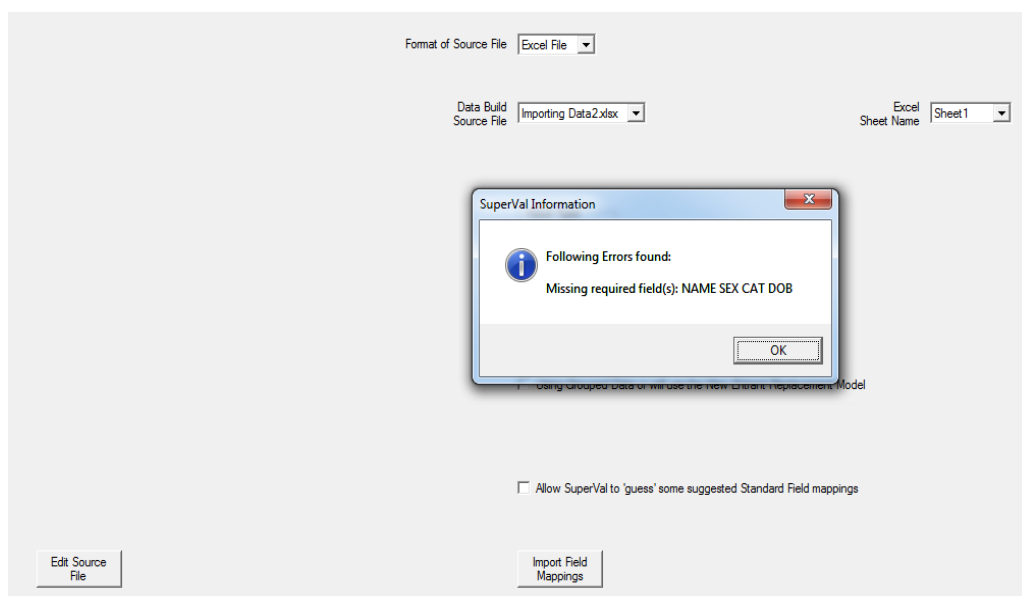


You must close the CSV data file before building the .DAT file.

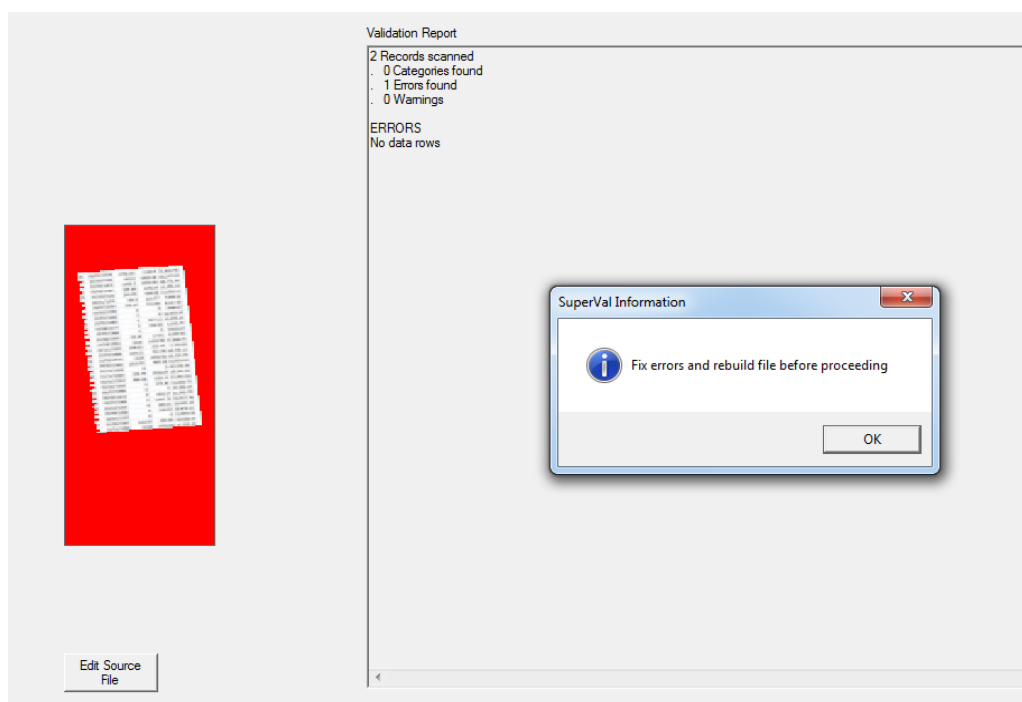
This may be done by clicking File + Close



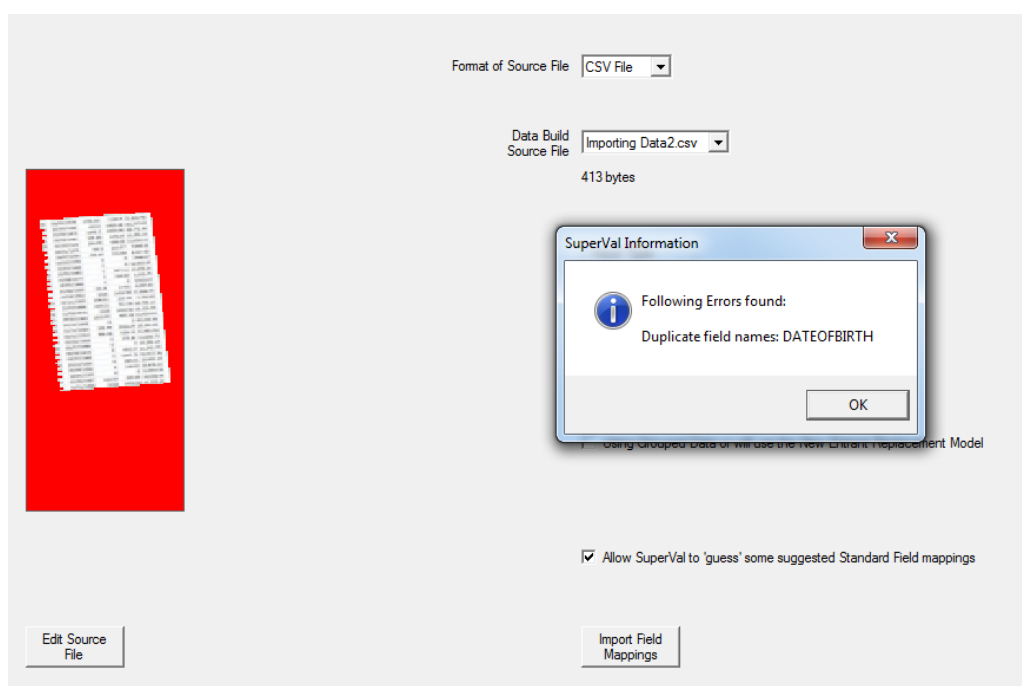
The excel data file is open and this open version has been selected note: the last saved version of the excel data file can be selected and a .DAT file built from it.



The CSV / Excel data file must contain a minimum of four columns, with the headings: NAME, SEX, CAT and DOB.



Your data file does not contain any member records



You have specified duplicate names in Row 1.

Row 1 should contain unique names.

This validation occurs prior to adding the q prefix.