



## Making an MDM: HLM warning/error messages

Several error or warning message may appear during the making of the MDM file. A short description of some of these are given below.

### Entering information

The Windows interface will warn the user if some required fields are not completed. For example, if the user attempts to select variable names prior to browsing and identifying the data file, the program may respond with the message

Must specify raw data type and input file name before variable names

If, on the other hand, the MDM name and data files have been assigned but variables have not been selected, the program will respond with the prompt

Please choose level-1 variables!

Similarly, the user will be prompted to save the MDMT file prior to attempting to make the MDM file. This is necessary to transfer all the entered information into the MDMT file on which MDM making is based.

### Making the MDM file

Once the **Make MDM** dialog box has been completed, clicking the **Make MDM** button will instruct HLM to make the MDM file. In the Command Prompt window that appears, several messages may also be printed. These will also appear in the \*.**sts** file that contains descriptive statistics on all data included in the MDM file.

A message frequently seen here is

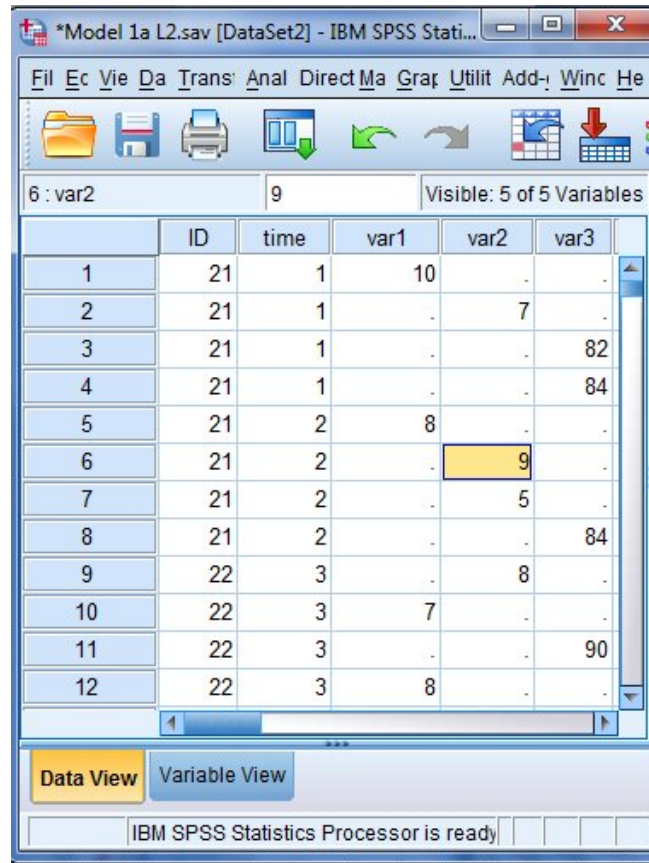
Missing data at level-1. Unable to continue

This message indicates that the user has neglected to complete the **Missing Data** field on the **Make MDM** dialog box. By default, this field is set to **No**, that is, the program assumes complete data. Selecting **Yes** instead of **No**, choosing either MDM time or runtime deletion and resaving the MDMT file should take care of this problem.

Another message that turns up often is

Level-x data file is empty

This message usually indicates that HLM is unable to read the data file header of a stat package data file. In that case, the Anything Else option should be used instead as discussed previously. However, it can also indicate that there is no valid data in the file in question. Here is an example of such a file:



	ID	time	var1	var2	var3
1	21	1	10	.	.
2	21	1	.	7	.
3	21	1	.	.	82
4	21	1	.	.	84
5	21	2	8	.	.
6	21	2	.	9	.
7	21	2	.	5	.
8	21	2	.	.	84
9	22	3	.	8	.
10	22	3	7	.	.
11	22	3	.	.	90
12	22	3	8	.	.

Note that while all rows have some data, no row has a complete set of values. If MDM time deletion is selected with this file at level-1, or this file is a higher-level file, HLM will inform the user that the file is empty as no usable rows of data could be found for inclusion into the MDM file. This type of problem can also cause the message

No groups left for analysis

to appear in both the Command Prompt window and in the \*.sts file. In the case of HCM/HCM2, a similar message

No row cells left for analysis

would indicate the same problem.

If a message appears in the Command Prompt stating that a data file is not sorted, the data file in question is not sorted in ascending order and must be resorted.

Finally, a message of the form

You must select at least one cluster variable!

You must select at least one row variable!

....

You must select at least one level-4 variable

may appear in the Command prompt window. HLM expects at least one variable other than ID(s) in each data file. If there is no data available, creating an extra variable and selecting that for inclusion in the MDM file should be done. Call it dummy or something similar, to remind you that this is not a true predictor.

The message

There are extra messages in HLM\*MDM.STS. Please examine this file

is of importance. If there is a mismatch of IDs, some groups appear in some of the files but not all, or groups do not have enough data left due to missing data specifications messages to this effect will be written to the \*.**sts** file.

### **Contents of the STS file**

The \*. **sts** file contains additional information and the descriptive statistics for all predictors selected for inclusion in the MDM file. An example of such a file is given below. Note that the group with ID 2020 is not in the level-3 file. This implies that all data associated with this unit at levels 2 and 1 would also be excluded from the MDM file. Inspection of the data for the reason for the mismatch of IDs over data files is recommended.

```

HLM3MDM.STS - Notepad
File Edit Format View Help
|Group      2020 not in level-3 file.

LEVEL-1 DESCRIPTIVE STATISTICS
VARIABLE NAME  N    MEAN    SD    MINIMUM  MAXIMU
YEAR          7133   0.38    1.39   -2.50    2.50
GRADE         7133   1.81    1.35    0.00    5.00
MATH          7133  -0.55    1.53   -5.22    5.77
RETAINED      7133    0.05    0.22    0.00    1.00

LEVEL-2 DESCRIPTIVE STATISTICS
VARIABLE NAME  N    MEAN    SD    MINIMUM  MAXIMU
FEMALE        1700   0.51    0.50    0.00    1.00
BLACK         1700   0.70    0.46    0.00    1.00
HISPANIC      1700   0.14    0.35    0.00    1.00

LEVEL-3 DESCRIPTIVE STATISTICS
VARIABLE NAME  N    MEAN    SD    MINIMUM  MAXIMU
SIZE           59  646.98  318.20  113.00  1486.00
LOWINC         59   74.30   27.15    0.00  100.00
MOBILITY       59   35.12   12.99    8.80   67.00

MDM template: C:\HLM 8 Student Examples\AppendxB\EG.MDMT
MDM file name: EG.MDM
Date:        Apr 15, 2020
Time:        18:09:33

```

If MDM time deletion of missing data was selected on the **Make MDM** dialog box, the N reported should correspond to that obtained in a stat package such as SPSS. However, if runtime deletion was selected, the N s may differ over variables in this file and also over subsequent models fitted as it will depend on the predictors in the model.