

VERSION 6.1

Mplus LANGUAGE ADDENDUM

In this chapter, changes to existing options and new options introduced in Version 6.1 are discussed.

THE VARIABLE COMMAND

DSURVIVAL

The `DSURVIVAL` option is used in conjunction with the `PLOT` command to identify the discrete-time survival variables so that survival curves are generated. The `DSURVIVAL` option is specified as follows:

```
DSURVIVAL = u1-u4;
```

where `u1` to `u4` are discrete-time survival variables.

THE DEFINE COMMAND

STANDARDIZE

The `STANDARDIZE` option standardizes continuous variables by subtracting the mean from each value and dividing by the standard deviation. Following is an example of how the `STANDARDIZE` option is used:

```
STANDARDIZE y1 y5-y10 y14;
```

where the variables `y1`, `y5` to `y10`, and `y14` will be standardized. The order of variables for the list function is taken from the order in the `USEVARIABLES` statement. If there is no `USEVARIABLES` statement, the order is taken from the `NAMES` statement. When a variable on the `STANDARDIZE` list is used in other transformations, the original values of the variable are used. Standardization takes place after all other transformations have been completed.

THE MODEL COMMAND

Labelling for the ON and WITH commands has changed so that lists of labels can be used for variables on both the left- and right-hand side of both options.

Following is an example of how the labeling works for the ON option:

```
y1-y3 ON x1-x4 (p1-p12);
```

The first variable on the left-hand side of ON is paired with all variables on the right-hand side. Then the second variable on the left-hand side of ON is paired with all variables on the right-hand side etc. The label for y1 on x1 is p1, y1 on x2 is p2, y1 on x3 is p3, y1 on x4 is p4, y2 on x1 is p5 up through y3 on x4 which is p12.

Following is an example of how the labeling works for the WITH option:

```
y1-y3 WITH y1-y3 ( p1-p3);
```

The WITH option applies the labels to the upper triangle of a symmetric matrix read row-wise such that the label for y1 with y2 is p1, y1 with y3 is p2, and y2 with y3 is p3.

THE ANALYSIS COMMAND

ALGORITHM

The GIBBS setting of the ALGORITHM option has four choices: PX1, PX2, PX3, and RW. The default is PX1. PX1, PX2, and PX3 use parameter extension techniques to generate correlation and covariance matrices. PX1 is described in the following paper on the website:

Asparouhov, T. & Muthén, B. (2010). Bayesian analysis using Mplus: Technical implementation. Technical Report. Version 3

PX2 is described in Boscardin et al.(2008) and PX3 is described in Liu and Daniels (2006). RW uses a random walk, Metropolis-Hastings

algorithm to generate correlation and covariance matrices (Chib & Greenberg, 1998). This algorithm can generate a covariance matrix with an arbitrary structure. These references can be found in the report cited above.

Following is an example of how to select an alternative setting:

```
ALGORITHM = GIBBS (PX3);
```

THE SAVEDATA COMMAND

COVARIANCE

The COVARIANCE option is used to specify the name of the ASCII file in which the model estimated covariance matrix for continuous analysis variables is saved. Following is an example of how this option is specified:

```
COVARIANCE = cov.dat;
```

where cov.dat is the name of the file in which the covariance matrix for continuous analysis variables will be saved. If the working directory contains a file of the same name, it will be overwritten. The data are saved using free format delimited by a space.