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MODLER for Windows
Statistical Information and Modeling System

MODLER Support Files

Operational Programs and Files
Distributed With MODLER

Technical Support

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Introduction

The MODLER support programs and files that are described in this guide are distributed with the Windows version of MODLER and, if you have recently obtained a CDRom copy of this program, are likely to be redundant. However, if you have been using MODLER for at least a year, these programs and files may include useful updates.

The contents of MWINSUP.EXE consist of files directly associated with the use of MODLER. They are in this sense *supporting* files. *Supplementary* programs and files are also available for use with MODLER, such as those described as Supplementary Programs for Data Base Management. The distinction is that these are used in conjunction with MODLER to perform particular operations, such as verifying that data bank files have not been corrupted or, if they have been, what the nature of the problem might be. Such programs and files are not normally used at the same time that MODLER is being used, although most of them could be if there was some purpose served by this.

The files described in this document are all contained in a self-extracting file called MWINSUP.EXE. When you download this EXE file from the MODLER website, www.modler.com, copy it to a temporary directory and then expand it. For best results, that temporary directory should contain only MWINSUP.EXE at the time of download, in which case it will be easy to see the individual programs and files extracted, whenever you subsequently execute and expand this file.

The executable programs contained in MWINSUP.EXE are distinguishable by their EXE Extents. They generally can be classified into two types, analytically oriented support programs and file conversion programs. The first type consists of the following programs in particular: a solution file editor program, SIMSET.EXE, and the monthly and quarterly seasonal adjustment programs, MODX11M.EXE and MODX11Q.EXE. Associated with these programs are user guide documentation files, which are text files and should be readable using any word processing/text editing software. You will find on the website PDF files that are more attractively presented. However, the purpose of these DOC files is to provide you with document files that you can edit and adapt to your needs. The second type of program, the file conversion programs will be described in Chapter 1.

The second category of files are the demonstration Data Bank files, which are distinguished by their BNK extents. As data banks these have only a limited usefulness, but their existence means that you need not create a data bank before beginning to use MODLER. Generally the use of these data banks is illustrated in the MODLER User Guide and other documentation explaining how to use MODLER.

Finally, the third category of files are the Macro, Plot and Table Template files, which are distinguished by their MAC, PLT, and TAB extents. These generally consist of files used to demonstrate particular MODLER operations. Once a data bank has been opened for access the demonstration files associated with it can be "run," in the process demonstrating some MODLER software capability. However, these files can also be inspected, using a text editing program, such as Notepad or Wordpad, should you wish to create files of these types as you use MODLER. In addition to permitting operations to be demonstrated, macro, plot, and table template (MAC, PLT, TAB) files have the additional characteristic of providing you with the capability to perform repetitive tasks on a regular basis, without requiring that you laboriously retype the commands they contain.

Chapter 1

Supporting Programs

Preliminaries

As mentioned in the Introduction, the executable programs contained in MWINSUP.EXE are distinguishable by their EXE Extents. They generally can be classified into two categories, analytically oriented support programs and file conversion programs. The first category consists of:

SIMSET.EXE   - Solution File Editor

MODX11Q.EXE - Census X11 Quarterly Seasonal Adjustment Program

MODX11M.EXE - Census X11 Monthly Seasonal Adjustment Program

Associated with these are the following document files:

SIMSET.DOC   - Operating Instructions for SIMSET.EXE

X11.DOC   - Operating Instructions for both Monthly and Quarterly X11 Seasonal Adjustment programs

These documentation files are text files and should be readable using any word processing/text editing software. You will find on the website PDF files that are more attractively presented. However, the purpose of these DOC files is to provide you with document files that you can edit and adapt to your needs.

The Nature of Supporting Programs

Since 1981-82, MODLER has operated using supporting programs that are launched during the execution of MODLER and perform specific tasks. The seasonal adjustment programs are perhaps the best example. MODX11Q.EXE and MODX11M.EXE are programs written in 1966 or thereabouts, in Fortran, under the aegis of the US Bureau of the Census. These programs have been marginally modified so that they have the capability to exchange data with MODLER (as well as DATAVIEW, MODLER BLUE, and other "MODLER" family programs) , but computationally they are the same programs as those originally written in 1966. The logic of this is very simple: if they were to be re-written, particularly using some other programming language, the resulting

updates might or might not produce the same results as the original programs. They would no longer be Bureau of the Census programs, they would be MODLER programs.

SIMSET, in contrast, is a "MODLER" program. It was written specifically to permit MODLER solution files to be edited and updated. These operations as interactive operations did not need to be included in MODLER itself, particularly in the DOS operating system environment, so that SIMSET was created as a separate program. Today, it can be operated as a standalone program, or it can be executed from within MODLER, as if it is a part of MODLER. At some point in time, the functionality of SIMSET will be incorporated into MODLER, but SIMSET is such a reliable program and can be executed independently of MODLER, so that it is difficult to foresee a time that it will cease to be distributed with MODLER.

The Installation of Supporting Programs

All supporting programs should be copied to the same directory (folder) as that containing the MODLER executable MODWIN.EXE. When this has been done, MODLER is able to find the programs and, as they are invoked by a user, is able to execute them appropriately. If you should put these programs in any other directory, they will not be found nor executed.

Documentation of Supporting Programs

As indicated earlier, one form of documentation for these programs are the DOC files that are included in the file MWINSUP.EXE. In addition, there are PDF files also included that provide a visually more attractive and more complete set of user guides for the above supporting programs.

File Conversion Programs

In the past ten or fifteen years, as Windows has supplanted DOS as the standard operating system, the MODLER file conversion programs have become less used, in favor of the MODLER facility to read data from Excel and other spreadsheet programs. However, there are still cases that you may receive ASCII data files that are formatted in any one of several formats: TSD, Comma Delimited (with or without quotes), or PrintFile, the latter simply taking the form of tables of data, originally produced by Lotus 1-2-3 and other programs that adopted the PrintFile format from Lotus. In a few cases, you might receive ASCII files that are formatted in some nonstandard format, for which a MODLER-related program does exist that will allow conversion; however, this case is now so infrequently encountered that this program is not described here. Should you

have a need to convert data you obtain in the form of a non-standard formatted ASCII file, contact your Alphametrics technical support person.

The file conversion programs that are supplied in the context of the ModWinSup.EXE file packet are:

CQDCOL.EXE - Column Oriented Comma and Quote Delimited Files

CSVCOL.EXE - Column Oriented Comma Delimited Files

Other file conversion programs have now been built into MODLER, including those for row oriented Comma and Quote Delimited Files and TSD files.   There are no longer separate programs for these.

It is useful to consider the Comma and Quote Delimited Files first, sometimes known by the initials CSV and CQD. CSV files are made up of comma-separated fields (or, Comma Separated Values, which explains the name CSV).   There are two general types: row-oriented and comma oriented.   A prototypical row-oriented CSV file might take the form, for quarterly frequency data:

Date,195501,195502,195503,195504
CE,240,250,260,270
CED,10,15,20,25
RED,3400,3600,3500,4200

thus displaying, in the first row, a sequence of dates, followed by three rows each containing observations on a variable, the mnemonic for which is located in the first field. Note that the rows do NOT need to line up by column, but that a comma appears between each separate item (or field).   Two commas together imply a NOT AVAILABLE (NA) observation.   The numbers are shown above as integers, but decimals within numbers are permitted.   Usually, each row is a variable, so that the rows are as long as they need to be to contain all the observations on each variable.

A prototypical column-oriented CSV file might equivalently be given by:

Date,CE,CED,RED
195501,240,10,3400
195502,250,15,3600
195503,260,20,3500
195504,270,25,4200

where the first "column" is a sequence of dates and the first row consists of comma separated mnemonics.

Notice that it is very important that position be maintained.   That is, in the row case, the third value in the second row is the observation on CE corresponding to the date

195502. Extra commas or omission of values for a particular date will have serious effects on how the values for a particular series are read in.

Excel and a number of other programs can also be used to both produce and convert CSV files. But be sure that you choose an output format that does NOT introduce extraneous commas, quotes around variable names, or any other such extraneous chararacteristics. When you use, for example, Excel, to convert a CSV file, the effect is to turn that file into a spreadsheet workbook (or worksheet) file. In this case, you would then use MODLER's facility to read the data into MODLER from the Excel workbook or worksheet.

The distinctive characteristic of a CQD file, in contrast to a CSV, is the appearance of quotation marks (sometimes single ' and sometimes double ") to set off text items in the files, such as (in particular) the variable names. Thus a column oriented CQD file might display a first row, using the example above, that looks like:

"Date"."CE"."CED"."RED"

In this case there is relatively little benefit associated with this variation, but text items set off by quotes can also contain embedded blank, for example: "Time of Year". In a MODLER context, this type of text set off is made much less useful because of the fact that series names *cannot* include blanks. Hence you will need to edit any files in which the series names contain embedded blanks before you attempt to read them into MODLER. Except for the quote delimited text items, CQD and CSV files have the same format.

An aspect of the CSV and CQD file that should be noted is that these files actually may take many forms. If you look at 50 such files, they may each have some specific trait, depending upon the number of values per series and such features. You will generally need to look at each of these files before you attempt to convert them, simply to make sure that they obey the basic formatting rules for this type of file. In addition, you should notice that these files do not generally make it clear what the characteristics of the data they contain are, in particular such characteristics as frequency of observation and possibly not even the date range of the series they contain. This type of information must be supplied in addition as you go through the process of converting these files.

In contrast the TSD file, which is described in the MODLER context specific help facility associated with file conversion (look at the entry **Convert Local Data File** under the main menu entry **Data** of MODLER's opening screen), has the characteristic that the data series it contains are (or should be) fully documented. In this case, when you convert a TSD file, there is very little work involved. The nature of TSD files has also been described in some detail in the article by Harrison and Renfro *TSX and TSE: A proposal for an extended time series data interchange and transfer format*, published in the *Journal of Economic and Social Measurement*, volume 29, pp. 339-358.

Chapter 2

Banks, Macros and Other Files

Increasingly, demonstration data banks, macro command files, and other associated files for MODLER are being distributed separately case by case.   For example, if you look at the www.modler.com website you will see that a document has been prepared that describes how to construct and use Klein model 1 with MODLER and associated with that document is also a set of files, including both a data bank and macro files, that can be used in the context of that effort.   MWinSup.EXE therefore now contains only a certain set of files of this type, namely those that are or can be used in conjunction with the *MODLER User Guide*.

The demonstration data bank is:

        DEMOBANK.BNK - Quarterly US Data

and the several macro files are:

        DEMODL.MAC
        DEMSOL.MAC
        DEMXTRA.MAC

The Table (TAB) files are:

        DEMTAB1.TAB
        DEMTAB2.TAB
        DEMTAB2A.TAB
        DEMTAB3.TAB

The use of which is explained in the MODLER User Guide, which can be downloaded (and/or printed) chapter by chapter from the www.modler.com website.   All these are contained in the file DEMOFILE.EXE, itself a self-extracting file, which is found in MWinSup.EXE.   These files are also distributed with the original MODLER CDRom and are made available in the context of MWinSup.EXE simply in case they have been misplaced and consequently you do not have them.   You will of course need to extract these from the DEMOFILE.EXE file and then put them into whichever folder(s) you are using for data banks and as your home directory.   BNK files go with other data banks The MAC and TAB files go in your home directory.

MwinSup.EXE also contains the file Kmodel.EXE, which can be used with MODLER, but is itself a self-extracting file that contains files that are intended to be used

when creating or working with Klein model 1, as described in the document, *A Guide to Klein Model I*. This document can be found among the Learning Tools facilities on the www.modler.com website.