

DataView For Windows

Statistical Information and Analysis System

Dataview User Guide - 2005

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AN OVERVIEW

The software described in this User Guide is the result of over 35 years of development and worldwide use. Its characteristics reflect the demands that have been placed upon it by the thousands of people who have used it during these years. In a very real sense, DataView is the creation of its users who continue to make the comments and suggestions that progressively are incorporated into its successive versions. Consequently DataView is one of the most capable time series data management and analysis software packages available today.

Some Basic Concepts

One general way to characterize DataView is as a resource manager. It can be used to create and maintain a variety of resources that include time series data banks, single equation projection models, plots and other graphics displays, tabular reports, and various other such objects. Furthermore, the software combines both power and ease of use. Power specifically refers to the capability to perform even complex tasks on the basis of a minimum amount of effort on the part of a user.

A data bank, in this context, is a collection of data that are conceptually related in some way, and which are organized into observations over time on economic and other societal variables. Associated with a data bank is an *index*; that is, an alphabetical list of the time series variables it contains. This list can be

displayed in several forms that range from a simple display of only the names of the variables to that list of names together with a fairly complete description of their characteristics, the latter in its most complete form being called a “fully documented” (or Full-Doc) index. Such displayed listings can consist of all the series in a bank, or a subset.

A central DataView design concept is that it is natural to work with data collections the elements of which have an obvious mutual relationship; for instance, the National Income and Product Accounts or Flow of Funds data for some particular economy, or price or employment data for some industry or collection of industries. These are inherently logical as data collections, both in terms of the way in which the data they contain are made publicly available by government agencies and others, and the way in which they tend to be used.

However, these collections are also conceptually fuzzy sets, and sometimes need to be combined or disassembled and reorganized or reassembled. Reflecting this need, each data bank managed by DataView can contain as many as 10,000 time series, and the program can simultaneously access up to 15 banks, which of course means that in principle operations can be performed that could involve simultaneous selection from as many as 150,000 series. Within this context, new data banks, even large banks, can be created easily and data series copied to form a new collection for some particular purpose, with each series’ documentation simultaneously transferred in the process.

Seldom, if ever, has anyone used the program at anywhere near the upper limits of its scale of operation, but the inference to be drawn is that DataView offers an unconstrained environment that is designed to allow you the freedom to access, manage, and maintain large or small data sets, as you wish. Moreover, it is correct to conclude that DataView therefore incorporates various

facilities that are designed to make this a feasible undertaking, whatever your scale of operation.

In addition to allowing you to manage data banks that can be organized into conceptually convenient collections of time series, the program also allows you to define other types of “objects” that you may want to work with: tables that contain particular variables, that you can organize and classify, or plots of variables over time that also can be named, classified, and displayed repeatedly on a weekly, monthly, or annual basis, as new observations become available, or models that refer to particular economies or regions or industries. Note that, conceptually, all these objects form collections of economic variables that are operated on and manipulated in specific ways.

DataView also incorporates automatic data management facilities. For instance, whenever transformations or other such data operations are performed that generate new variables, in the absence of instructions to the contrary, the program will automatically create a temporary workspace, known as a *Memory File*. The Memory File operates as a temporary, working data bank and is automatically accessed subsequently. The contents of this workspace can be saved from session to session at your option, and once created DataView will remind you to save it, if you wish, before closing out that session.

Finally, DataView performs these operations in a world in which, on the output side, the data are published and distributed in a variety of formats. Your work is likely to require the creation of documents, presentations, tables, graphs, and other displays, many of which will inevitably involve the use of other software packages; no single program can do everything and, in any case, you bring to the task your past experience of particular packages. You may well wish to use these packages to perform certain tasks. And today, the way in which you both acquire your raw materials and present your work can include both hard copy and machine

readable forms, including the Internet, as well as diskettes, CDRoms, and other forms. DataView is therefore designed to import data in a variety of forms, export results conveniently, and interact with a variety of other software packages in the process, including word processors, spreadsheet packages, presentation managers, and Internet browsers.

An additional characteristic of the software is its context-specific design. The particular software described in this user guide, DataView for Windows, is designed to be used on microcomputers that have as their operating system Windows 3.x, Windows 9.x, Windows NT, or Windows 2000 .

DataView operates in the context of the Windows operating system in a way that takes active advantage of all the facilities of this environment. For instance, it seamlessly utilizes Windows' file manager and text editor facilities. Otherwise, DataView is designed to communicate directly with many other microcomputer packages, including spreadsheet, data base maintenance, communications, drawing, graphics, word-processing, and desktop publishing programs. As a case in point, DataView has the capability to write to and directly read from individual spreadsheet worksheet cells, allowing it both to import data selectively and to use spreadsheet packages as sophisticated report generators. More generally, DataView displays can be captured and forwarded to other programs or the Internet.

However, unlike many other Windows packages, DataView is efficient in operation: in order to operate properly, DataView requires approximately 1 Meg of RAM and about 3 megabytes of hard disk space, much of that reflecting its extensive help facilities. But because of this parsimonious use of computer resources, particularly if you have a modern machine with a large hard disk, you will be hard put to measure whatever imposition it makes, particularly in comparison with resource intensive packages such as Microsoft Office.

DataView's principal features include:

- A complete environment for maintaining virtually any size data base, analysing and transforming data, and constructing and solving models, large or small
- A Graphical User Interface (GUI) that includes a straightforward macro command language that can be use to support periodic production use
- Complete language and file compatibility with other MODLER family programs
- Intelligent defaults that save you from having to specify details of data organisation and presentation
- Continuous recording of results so that you can stop the program after any command and restart later with virtually no loss of information
- The ability to run a wide variety of other programs from within DataView, including word processing, communications, and spreadsheet programs, as well as to link to the Internet using the browser you designate
- Complete freedom to switch between different commands, operations, and data files allowing you to go back and revise prior steps or interrupt work on one project in order to examine results from another
- Instant on-screen tables and graphics with options for storing results on disk and for making immediate hard copies using windows compatible local or network printers, plotters, and other such devices

DataView provides extensive facilities for data analysis and display:

- Search and retrieval of series from Data Banks

- Temporary storage of user entered or generated series in a workspace Memory File
- Derivation of series by analytic formula
- Ability to route hard copy output to Windows-compatible local or network printers and other peripheral devices
- The capability to design and manage annotated tabular reports
- Ability to produce plots, bar charts, scatters, and other diagrams on screen and windows-compatible peripheral devices
- Ability to create and maintain your own, fully-documented Data Banks

DataView also gives you the facilities necessary for creating and using single equation projection models. DataView provides:

- A variety of regression techniques to estimate and test relationships between variables
- Nearly automatic creation of single equation projection models, using estimated regression equations.
- Definition of variant forecasts by progressive modification of assumptions
- Standard tables and plots of results including comparisons between alternative forecasts
- Ability to copy single equation forecast results as defined data sets