Intro — Introduction to base reference manual

Description

This entry describes the organization of the reference manuals.

Remarks and examples

The complete list of reference manuals is as follows:

- **[R]**  *Stata Base Reference Manual*
- **[BAYES]**  *Stata Bayesian Analysis Reference Manual*
- **[CM]**  *Stata Choice Models Reference Manual*
- **[D]**  *Stata Data Management Reference Manual*
- **[DSGE]**  *Stata Dynamic Stochastic General Equilibrium Models Reference Manual*
- **[ERM]**  *Stata Extended Regression Models Reference Manual*
- **[FMM]**  *Stata Finite Mixture Models Reference Manual*
- **[FN]**  *Stata Functions Reference Manual*
- **[G]**  *Stata Graphics Reference Manual*
- **[IRT]**  *Stata Item Response Theory Reference Manual*
- **[LASSO]**  *Stata Lasso Reference Manual*
- **[XT]**  *Stata Longitudinal-Data/Panel-Data Reference Manual*
- **[META]**  *Stata Meta-Analysis Reference Manual*
- **[ME]**  *Stata Multilevel Mixed-Effects Reference Manual*
- **[MI]**  *Stata Multiple-Imputation Reference Manual*
- **[MV]**  *Stata Multivariate Statistics Reference Manual*
- **[PSS]**  *Stata Power, Precision, and Sample-Size Reference Manual*
- **[P]**  *Stata Programming Reference Manual*
- **[RPT]**  *Stata Reporting Reference Manual*
- **[SP]**  *Stata Spatial Autoregressive Models Reference Manual*
- **[SEM]**  *Stata Structural Equation Modeling Reference Manual*
- **[SVY]**  *Stata Survey Data Reference Manual*
- **[ST]**  *Stata Survival Analysis Reference Manual*
- **[TABLES]**  *Stata Customizable Tables and Collected Results Reference Manual*
- **[TS]**  *Stata Time-Series Reference Manual*
- **[TE]**  *Stata Treatment-Effects Reference Manual: Potential Outcomes/Counterfactual Outcomes*
- **[M]**  *Mata Reference Manual*
When we refer to “reference manuals”, we mean all manuals listed above.
When we refer to the specialty manuals, we mean all the manuals listed above except \([R]\).

**Arrangement of the reference manuals**

Each manual contains the following sections:

- **Contents.**
  A table of contents can be found at the beginning of each manual.

- **Cross-referencing the documentation.**
  This entry lists all the manuals and explains how they are cross-referenced.

- **Introduction.**
  This entry—usually called intro—provides an overview of the manual. In the specialty manuals, this introduction suggests entries that you might want to read first and provides information about new features.

  Each specialty manual contains an overview of the commands described in it.

- **Entries.**
  Entries are arranged in alphabetical order. Most entries describe Stata commands, but some entries discuss concepts, and others provide overviews.

  Entries that describe estimation commands are followed by an entry discussing postestimation commands that are available for use after the estimation command. For example, the `xtlogit` entry in the \([XT]\) manual is followed by the `xtlogit postestimation` entry.

- **Glossary.**
  A glossary is contained in all the specialty manuals.

  To find information and commands quickly, use Stata’s `search` command; see \([R]\) `search` (see the entry `search` in the \([R]\) manual).

  Each reference manual does not contain its own author or subject index. A combined author index and a combined subject index for all reference manuals can be found in the *Stata Index*, [1]. This manual also contains a combined subject table of contents for all reference manuals and the *User’s Guide*, an acronym glossary, and a vignette index.

**Arrangement of each entry**

Entries in most of the Stata reference manuals contain the following sections, which are explained below:

- Description
- Quick start
- Menu
- Syntax
- Options
- Remarks and examples
- Stored results
- Methods and formulas
- Acknowledgments
- References
- Also see
Description

The purpose of the command is briefly described here.

Quick start

A quick start lists common uses of the command and the corresponding syntax for each.

For details on the syntax elements shown in the Quick start examples and to further customize the examples shown, see the Syntax and Options sections of the entry.

If you prefer to use the GUI, see the Menu section of the entry.

For applied examples of the syntax, see Remarks and examples.

Menu

A menu indicates how the dialog box for the command may be accessed using the menu system.

Syntax

A command’s syntax diagram shows how to type the command, indicates all possible options, and gives the minimal allowed abbreviations for all the items in the command. For instance, the syntax diagram for the summarize command is

```
summarize [varlist] [if] [in] [weight] [, options]
```

<table>
<thead>
<tr>
<th>options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>detail</td>
<td>display additional statistics</td>
</tr>
<tr>
<td>meanonly</td>
<td>suppress the display; calculate only the mean; programmer’s option</td>
</tr>
<tr>
<td>format</td>
<td>use variable’s display format</td>
</tr>
<tr>
<td>separator(#)</td>
<td>draw separator line after every # variables; default is separator(5)</td>
</tr>
<tr>
<td>display_options</td>
<td>control spacing and base and empty cells</td>
</tr>
</tbody>
</table>

varlist may contain factor variables; see [U] 11.4.3 Factor variables.
varlist may contain time-series operators; see [U] 11.4.4 Time-series varlists.
by, collect, rolling, and statsby are allowed; see [U] 11.1.10 Prefix commands.
aweights, fweights, and iweights are allowed. However, iweights may not be used with the detail option; see [U] 11.1.6 weight.

Items in the typewriter-style font should be typed exactly as they appear in the diagram, although they may be abbreviated. Underlining indicates the shortest abbreviations where abbreviations are allowed. For instance, summarize may be abbreviated su, sum, summ, etc., or it may be spelled out completely. Items in the typewriter font that are not underlined may not be abbreviated.

Square brackets denote optional items. In the syntax diagram above, varlist, if, in, weight, and the options are optional.

The options are listed in a table immediately following the diagram, along with a brief description of each.

Items typed in italics represent arguments for which you are to substitute variable names, observation numbers, and the like.
The diagrams use the following symbols:

#      Indicates a literal number, for example, 5; see [U] 12.2 Numbers.
[ ]    Anything enclosed in brackets is optional.
{ }    At least one of the items enclosed in braces must appear.
|      The vertical bar separates alternatives.
`fmt` Any Stata format, for example, %8.2f; see [U] 12.5 Formats: Controlling how data are displayed.

*depvar* The dependent variable in an estimation command; see [U] 20 Estimation and postestimation commands.
*exp*    Any algebraic expression, for example, (5+myvar)/2; see [U] 13 Functions and expressions.
*filename* Any filename; see [U] 11.6 Filenaming conventions.
*indepvars* The independent variables in an estimation command; see [U] 20 Estimation and postestimation commands.
*newvar* A variable that will be created by the current command; see [U] 11.4.2 Lists of new variables.
*numlist* A list of numbers; see [U] 11.1.8 numlist.
*oldvar* A previously created variable; see [U] 11.4.1 Lists of existing variables.
*options* A list of options; see [U] 11.1.7 options.
*range* An observation range, for example, 5/20; see [U] 11.1.4 in range.
"string" Any string of characters enclosed in double quotes; see [U] 12.4 Strings.
*varlist* A list of variable names; see [U] 11.4 varname and varlists. If *varlist* allows factor variables, a note to that effect will be shown below the syntax diagram; see [U] 11.4.3 Factor variables. If *varlist* allows time-series operators, a note to that effect will be shown below the syntax diagram; see [U] 11.4.4 Time-series varlists.
*varname* A variable name; see [U] 11.3 Naming conventions.
*xvar*   The variable to be displayed on the horizontal axis.
*yvar*   The variable to be displayed on the vertical axis.

The *Syntax* section will indicate whether factor variables or time-series operators may be used with a command. *summarize* allows factor variables and time-series operators.

If a command allows prefix commands, this will be indicated immediately following the table of options. *summarize* allows by.

If a command allows weights, the types of weights allowed will be specified, with the default weight listed first. *summarize* allows *aweights*, *fweights*, and *iweights*, and if the type of weight is not specified, the default is *aweights*. 
Options

If the command allows any options, they are explained here, and for dialog users the location of the options in the dialog is indicated. For instance, in the `logistic` entry in this manual, the `Options` section looks like this:

```
Model
  ...
SE/Robust
  ...
Reporting
  ...
Maximization
  ...
```

Remarks and examples

The explanations under `Description` and `Options` are exceedingly brief and technical; they are designed to provide a quick summary. The remarks explain in English what the preceding technical jargon means. Examples are used to illustrate the command.

Links to video examples posted on Stata's YouTube channel are provided at the end of this section.

Stored results

Commands are classified as e-class, r-class, s-class, or n-class, according to whether they store calculated results in `e()`, `r()`, `s()`, or not at all. These results can then be used in subroutines by other programs (ado-files). Such stored results are documented here; see [U] 18.8 Accessing results calculated by other programs and [U] 18.9 Accessing results calculated by estimation commands.

Methods and formulas

The techniques and formulas used in obtaining the results are described here as tersely and technically as possible.

Acknowledgments

Some Stata commands began as community-contributed commands, or they were enhanced after suggestions by a Stata user. Here, we acknowledge these contributions.
Elizabeth L. ("Betty") Scott (1917–1988) was an astronomer and mathematician trained at the University of California at Berkeley. She published her first paper when she was just 22 years old, and her work was focused on comets for much of her early academic career. During World War II, Scott began working at the statistical laboratory at Berkeley, which had recently been established by Jerzy Neyman, sparking what would be a long and fruitful collaboration with him. After the war, she shifted her focus toward mathematics and statistics, partly because of limited career opportunities as an astronomer, though she still applied her research to astronomical topics. For example, in 1949 she published a paper using statistical techniques to analyze the distribution of binary star systems. She also published papers examining the distribution of galaxies, and she is the name behind the "Scott effect", which helps determine the distances to galaxies. Later in her career, Scott applied her statistical knowledge to problems associated with ozone depletion and its effects on the incidence of skin cancer as well as weather modification. She was also a champion of equality for women graduate students and faculty. Among Scott’s many awards and accomplishments, she was elected an honorary fellow of the Royal Statistical Society and was a fellow of the American Association for the Advancement of Science. In 1992, the Committee of Presidents of Statistical Societies established the Elizabeth L. Scott Award, a biannual award to recognize those who have strived to enhance the status of women within the statistics profession.

Janet Lippe Norwood (1923–2015) was born in Newark, New Jersey. She obtained her PhD from Tufts University and taught political science at Wellesley College. Norwood made significant contributions while she was the first female commissioner for the Bureau of Labor Statistics (BLS). She accomplished the goal of conducting the Consumer Expenditure Survey annually, a long-time goal of the BLS, and saved the National Longitudinal Survey from termination. As commissioner, she would present data on national unemployment before the Joint Economic Committee on a monthly basis, a duty that she performed with unwavering impartiality. Under her direction, the statistical quality of reported indicators improved, as did the cooperation of the BLS with the Census Bureau and the National Center for Health Statistics. After her role as commissioner, she was the Chair of the Advisory Council on Unemployment Compensation, appointed by presidents George H. W. Bush and Bill Clinton. She also held a variety of other leadership positions, including president of the American Statistical Association, board member of the American Economic Association, and chair of a statistical committee for the OECD. Norwood was a trailblazer. In her honor, the University of Alabama at Birmingham created the Janet L. Norwood Award to recognize women in statistics.
Also see

[U] 1.1 Getting Started with Stata