Description

In this manual, you will find

- matrix-manipulation commands, which are available from the Stata command line and for ado-programming (for advanced matrix functions and a complete matrix programming language, see the *Mata Reference Manual*),
- commands for programming Stata, and
- commands and discussions of interest to programmers.

This manual is referred to as [P] in cross-references and is organized alphabetically.

If you are new to Stata's programming commands, we recommend that you first read the chapter about programming Stata in **[U] 18 Programming Stata**. After you read that chapter, we recommend that you read the following sections from this manual:

[P] **program**	Define and manipulate programs
[P] **sortpreserve**	Sorting within programs
[P] **byable**	Making programs byable
[P] **macro**	Macro definition and manipulation

You should also see the *Combined subject table of contents for programming*, which immediately follows the table of contents.

We also recommend the Stata NetCourses. Our current offerings of Stata programming NetCourses include

NC-151 Introduction to Stata programming
NC-152 Writing Your Own Stata Commands

To learn more about NetCourses and view the current offerings, visit https://www.stata.com/netcourse/.

Stata also offers classroom and web-based training courses. Visit https://www.stata.com/training/classroom-and-web/ for details.

To learn about writing your own maximum-likelihood estimation commands, read the book *Maximum Likelihood Estimation with Stata*. Other Stata Press titles can be found at https://www.stata-press.com.

References

Baum, C. F. 2016. *An Introduction to Stata Programming*. 2nd ed. College Station, TX: Stata Press.

Pitblado, J. S., B. P. Poi, and W. W. Gould. 2024. *Maximum Likelihood Estimation with Stata*. 5th ed. College Station, TX: Stata Press.

Also see

[U] 18 Programming Stata

[U] 1.3 What's new

[R] **Intro** — Introduction to base reference manual

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