

Intro — Introduction to programming manual

[Description](#) [References](#) [Also see](#)

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 the *User's Guide*; see [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 may also find the subject table of contents helpful; it immediately follows the table of contents.

We also recommend the Stata NetCourses[®]. At the time this introduction was written, our current offerings of Stata programming NetCourses included

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

You can learn more about NetCourses and view the current offerings of NetCourses by visiting <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*; see <https://www.stata-press.com/books/ml4.html>. To view other Stata Press titles, see <https://www.stata-press.com>.

References

- Baum, C. F. 2016. *An Introduction to Stata Programming*. 2nd ed. College Station, TX: Stata Press.
- Gould, W. W., J. S. Pitblado, and B. P. Poi. 2010. *Maximum Likelihood Estimation with Stata*. 4th 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