Title

> **intro —** Introduction to programming manual

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Description

This entry describes this manual and what has changed since Stata 12.

Remarks and examples

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 Advanced Stata programming

You can learn more about NetCourses and view the current offerings of NetCourses by visiting http://www.stata.com/netcourse/.

Stata also offers public training courses. Visit http://www.stata.com/training/public.html for details.

To learn about writing your own maximum-likelihood estimation commands, read the book *Maximum Likelihood Estimation with Stata*; see http://www.stata-press.com/books/ml4.html. To view other Stata Press titles, see http://www.stata-press.com.

What's new

For a complete list of all the new features in Stata 13, see [U] **1.3 What's new**.

References

Baum, C. F. 2009. *An Introduction to Stata Programming*. 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