



GEORG-AUGUST-UNIVERSITÄT
GÖTTINGEN

Applied Programming

Stata Self-Learning Course



From the code to the program

- If you write your own program, you will seldomly write it „top to bottom“
- Most of the time, you will already have some code which you want to generalize
- Hence, you need to think how you make it adaptable to a wider setting, e.g.
 - change variable names to locals/tempvars
 - run loops over variables/groups/levels
- Also think about how the user will use the program
 - make it as general as possible (allow as many options/variable types as reasonable)
 - still, only allow input/options which make sense
 - write meaningful error checks and messages



Useful thoughts/checks

If you write a program, think about:

- Do you want to put something to the return/ereturn list?
- What input do you need? What should be specified or chosen by the user?
- Can the syntax command take care of it?
- Do you need error checks?
- Where might if-branches be needed?
- After running the program, will the dataset/working space be the same except for the required changes?



Useful commands/procedures

- Confirm types/classes etc.

`confirm`

- Count words/elements/arguments

`wordcount()`

`local w: word count`

- Count distinct levels

`unique`

`levelsof `var', local(w)`

- String functions and extended macro functions

`help string function`

`help macro`

- Expand local lists during loops

- Use temporary objects