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[GSU] Getting Started with Stata for Unix
[GSW] Getting Started with Stata for Windows

[U] Chapter 3 Resources for learning and using Stata
[U] Chapter 4 Stata’s help and search facilities
[R] help Display help in Stata
[R] search Search Stata documentation and other resources

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[D] data management Introduction to data management commands
[D] data types Quick reference for data types
[D] datetime Date and time values and variables
[D] describe Describe data in memory or in file
[D] edit Browse or edit data with Data Editor
[D] format Set variables’ output format
[D] inspect Display simple summary of data’s attributes
[D] label Manipulate labels
[D] list List values of variables
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[U] Chapter 24 ............................................... Working with dates and times
[D] bcal ................................................ Business calendar file manipulation
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[D] import append ......................................... Import export Excel files
[D] import delimited ......................... Import data from Haver Analytics databases
[D] import excel ..................................... Import and export datasets in SAS XPORT format
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[D] odbc .............................................. Load, write, or view data from ODBC sources
[D] outfile ............................................. Export dataset in text format
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[D] sysuse ............................................... Use shipped dataset
[D] use ............................................... Load Stata dataset
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[D] xmlsave ............................................ Export or import dataset in XML format

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[MI] mi append ........................................... Append mi data
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[D] contract .......................................................... Make dataset of frequencies and percentages
[D] expand .......................................................... Duplicate observations
[D] expandcl ......................................................... Duplicate clustered observations
[D] fillin ................................................................. Rectangularize dataset
[D] obs .............................................................. Increase the number of observations in a dataset
[D] reshape .......................................................... Convert data from wide to long form and vice versa
[M] mi reshape ......................................................... Reshape mi data
[TS] rolling .......................................................... Rolling-window and recursive estimation
[D] separate .......................................................... Create separate variables
[SEM] ssd ................................................................. Making summary statistics data (sem only)
[D] stack ............................................................... Stack data
[D] statsby ............................................................. Collect statistics for a command across a by list
[D] xpose .............................................................. Interchange observations and variables

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[U] Section 12.6 ...................................................... Dataset, variable, and value labels
[D] format .......................................................... Set variables’ output format
[D] label ............................................................... Manipulate labels
[D] label language ................................................... Labels for variables and values in multiple languages
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[D] notes ............................................................... Place notes in data
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[D] encode ............................................................ Encode string into numeric and vice versa
[D] generate ........................................................ Create or change contents of variable
[D] mvencode ........................................................ Change missing values to numeric values and vice versa
[D] order .............................................................. Reorder variables in dataset
[D] recode ............................................................ Recode categorical variables
[D] rename ............................................................ Rename variable
[D] rename group .................................................... Rename groups of variables
[D] split ............................................................... Split string variables into parts
[D] varmanage ........................................................ Manage variable labels, formats, and other properties

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[D] codebook ........................................................ Describe data contents
[D] compare ........................................................ Compare two variables
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[D] describe ........................................................ Describe data in memory or in file
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| MI | mi erase ................................................................. | Erase mi datasets |
| MI | mi expand ............................................................... | Expand mi data |
| MI | mi export ............................................................... | Export mi data |
| MI | mi export ice ........................................................... | Export mi data to ice format |
| MI | mi export nhanes1 ....................................................... | Export mi data to NHANES format |
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| MI | mi import flong .......................................................... | Import flong-like data into mi |
| MI | mi import flongsep ....................................................... | Import flongsep-like data into mi |
| MI | mi import ice ............................................................ | Import ice-format data into mi |
| MI | mi import nhanes1 ....................................................... | Import NHANES-format data into mi |
| MI | mi import wide .......................................................... | Import wide-like data into mi |
| MI | mi merge ................................................................. | Merge mi data |
| MI | mi misstable ............................................................ | Tabulate pattern of missing values |
| MI | mi passive ............................................................... | Generate/replace and register passive variables |
| MI | mi ptrace ................................................................. | Load parameter-trace file into Stata |
| MI | mi rename ............................................................... | Rename variable |
| MI | mi replace0 ............................................................. | Replace original data |
| MI | mi reset ................................................................. | Reset imputed or passive variables |
| MI | mi reshape ............................................................. | Reshape mi data |
| MI | mi set ................................................................. | Declare multiple-imputation data |
| MI | mi stsplit ............................................................... | Stsplit and stjoin mi data |
| MI | mi update .............................................................. | Ensure that mi data are consistent |
| MI | mi varying ............................................................. | Identify variables that vary across imputations |
| MI | mi xeq ................................................................. | Execute command(s) on individual imputations |
| MI | mi XXXset ............................................................. | Declare mi data to be svy, st, ts, xt, etc. |
| MI | noupdate option ........................................................ | The noupdate option |
| MI | styles ................................................................. | Dataset styles |
| MI | workflow ............................................................... | Suggested workflow |

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| U | Chapter 4 ............................................................... | Stata’s help and search facilities |
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| U | Chapter 16 ............................................................. | Do-files |
| R | about ................................................................. | Display information about your Stata |
| D | by ................................................................. | Repeat Stata command on subsets of the data |
| R | cls ................................................................. | Clear Results window |
| R | copyright ........................................................... | Display copyright information |
| R | do ................................................................. | Execute commands from a file |
| R | doedit .............................................................. | Edit do-files and other text files |
| R | exit ............................................................... | Exit Stata |
| R | help ............................................................... | Display help in Stata |
| R | level .............................................................. | Set default confidence level |
| R | log ............................................................... | Echo copy of session to file |
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[R] search ............................................................... Search Stata documentation and other resources
[R] translate ............................................................ Print and translate logs
[R] view ................................................................. View files and logs
[D] zipfile .............................................................. Compress and uncompress files and directories in zip archive format

[U] Chapter 8 ............................................................... Error messages and return codes
[P] error ................................................................. Display generic error message and exit
[R] error messages ...................................................... Error messages and return codes
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[U] Section 13.5 ........................................................ Accessing coefficients and standard errors
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[R] estimates describe ............................................... Describe estimation results
[R] estimates for ..................................................... Repeat postestimation command across models
[R] estimates notes ................................................... Add notes to estimation results
[R] estimates replay .................................................. Redisplay estimation results
[R] estimates save .................................................... Save and use estimation results
[R] estimates stats .................................................... Model-selection statistics
[R] estimates store ................................................... Store and restore estimation results
[R] estimates table ................................................... Compare estimation results
[R] estimates title ..................................................... Set title for estimation results
[P] _return ............................................................. Preserve stored results
[P] return .............................................................. Return stored results
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[D] checksum ........................................................ Calculate checksum of file
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[R] net search ........................................................ Search the Internet for installable packages
[R] netio .............................................................. Control Internet connections
[R] news ............................................................... Report Stata news
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[D] assert ................................. Verify truth of claim
[D] cd ................................ Change directory
[D] changeeol ............................ Convert end-of-line characters of text file
[D] checksum ............................. Calculate checksum of file
[D] copy ................................ Copy file from disk or URL
[P] _datasignature .................... Determine whether data have changed
[D] datasignature ...................... Determine whether data have changed
[R] db .................................. Launch dialog
[P] dialog programming .............. Dialog programming
[D] dir .................................. Display filenames
[P] discard .............................. Drop automatically loaded programs
[D] erase ................................ Erase a disk file
[P] file .................................. Read and write ASCII text and binary files
[D] filefilter ............................ Convert text or binary patterns in a file
[D] hexdump ............................. Display hexadecimal report on file
[D] mkdir ................................. Create directory
[R] more ................................ The —more— message
[R] query ................................ Display system parameters
[P] quietly .............................. Quietly and noisily perform Stata command
[D] rmdir ................................ Remove directory
[R] set .................................. Overview of system parameters
[R] set cformat .......................... Format settings for coefficient tables
[R] set_defaults ........................ Reset system parameters to original Stata defaults
[R] set emptycells ..................... Set what to do with empty cells in interactions
[R] set seed .............................. Specify initial value of random-number seed
[R] set showbaselevels ............... Display settings for coefficient tables
[D] shell ................................ Temporarily invoke operating system
[P] signestimationsample ............ Determine whether the estimation sample has changed
[P] smcl ................................ Stata Markup and Control Language
[P] sysdir ................................ Query and set system directories
[D] type .................................. Display contents of a file
[R] which ................................. Display location and version for an ado-file

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[G-2] graph twoway rspike .................... Range plot with spikes
[G-2] graph twoway scatter ................. Twoway scatterplots
[G-2] graph twoway scatteri ............... Scatter with immediate arguments
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[G-2] graph use .............................. Display graph stored on disk
[R] histogram .............................. Histograms for continuous and categorical variables
[R] marginsplot ............................. Graph results from margins (profile plots, etc.)
[G-2] palette ............................... Display palettes of available selections

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[R] cumul ................................. Cumulative distribution
[R] diagnostic plots ....................... Distributional diagnostic plots
[R] ladder .................................. Ladder of powers
[R] spikeplot .............................. Spike plots and rootograms

Multivariate graphs

[MV] biplot .................................. Biplots
[MV] ca postestimation ..................... Postestimation tools for ca and camat
[MV] ca postestimation plots ............. Postestimation plots for ca and camat
[MV] cluster dendrogram ................. Dendrograms for hierarchical cluster analysis
[MV] mca postestimation .................. Postestimation tools for mca
[MV] mca postestimation plots .......... Postestimation plots for mca
[MV] mds postestimation ................. Postestimation tools for mds, mdsmat, and mdslong
[MV] mds postestimation plots .......... Postestimation plots for mds, mdsmat, and mdslong
[MV] procrustes postestimation ......... Postestimation tools for procrustes
[MV] scoreplot ............................ Score and loading plots
[MV] screeplot ............................ Scree plot

Quality control

[R] cusum ................................ Cusum plots and tests for binary variables
[R] qc ....................................... Quality control charts
[R] serrbar ................................. Graph standard error bar chart

Regression diagnostic plots

[R] regress postestimation diagnostic plots .... Postestimation plots for regress

ROC analysis

[R] estat classification .................... Classification statistics and table
[R] estat gof .............................. Pearson or Hosmer–Lemeshow goodness-of-fit test
[R] logistic postestimation ............... Postestimation tools for logistic
[R] lroc .......................... Compute area under ROC curve and graph the curve
[R] lsens ................................. Graph sensitivity and specificity versus probability cutoff
[R] roccomp ............................... Tests of equality of ROC areas
[R] rocfit postestimation ............... Postestimation tools for rocfit
[R] rocregplot .......................... Plot marginal and covariate-specific ROC curves after rocreg
[R] roctab ................................ Nonparametric ROC analysis
### Smoothing and densities
- **[R]** histogram ...................... Histograms for continuous and categorical variables
- **[R]** kdensity .......................... Univariate kernel density estimation
- **[R]** lowess ............................ Lowess smoothing
- **[R]** lpoly ............................. Kernel-weighted local polynomial smoothing
- **[R]** sunflower ......................... Density-distribution sunflower plots

### Survival-analysis graphs
- **[ST]** ltable .............................. Life tables for survival data
- **[ST]** stci ............................... Confidence intervals for means and percentiles of survival time
- **[ST]** stcox PH-assumption tests .... Tests of proportional-hazards assumption
- **[ST]** stcurve ............................ Plot survivor, hazard, cumulative hazard, or cumulative incidence function
- **[ST]** strate ............................. Tabulate failure rates and rate ratios
- **[ST]** sts graph ......................... Graph the survivor, hazard, or cumulative hazard function

### Time-series graphs
- **[TS]** corrgram .......................... Tabulate and graph autocorrelations
- **[TS]** cumsp ............................. Cumulative spectral distribution
- **[TS]** estat acplot ...................... Check the stability condition of ARIMA estimates
- **[TS]** fcast graph ........................ Graph forecasts after fcast compute
- **[TS]** irf cgraph ....................... Combined graphs of IRFs, dynamic-multiplier functions, and FEVDs
- **[TS]** irf graph ........................ Graphs of IRFs, dynamic-multiplier functions, and FEVDs
- **[TS]** irf ograph ....................... Overlaid graphs of IRFs, dynamic-multiplier functions, and FEVDs
- **[TS]** pergram ........................... Periodogram
- **[TS]** tsline ............................. Plot time-series data
- **[TS]** varstable ......................... Check the stability condition of VAR or SVAR estimates
- **[TS]** vecstable ......................... Check the stability condition of VECM estimates
- **[TS]** wntestb .......................... Bartlett’s periodogram-based test for white noise
- **[TS]** xcorr ............................. Cross-correlogram for bivariate time series

### More statistical graphs
- **[R]** dotplot ........................... Comparative scatterplots
- **[ST]** epitab ............................ Tables for epidemiologists
- **[R]** fp postestimation ................ Postestimation tools for fp
- **[R]** grmeanby .......................... Graph means and medians by categorical variables
- **[R]** pkexamine .......................... Calculate pharmacokinetic measures
- **[R]** pksumm ............................ Summarize pharmacokinetic data
- **[R]** stem ............................... Stem-and-leaf displays
- **[XT]** xtline ............................ Panel-data line plots

### Editing
- **[G-1]** graph editor .................. Graph Editor

### Graph utilities
- **[G-2]** set graphics .................. Set whether graphs are displayed
- **[G-2]** set printcolor ................ Set how colors are treated when graphs are printed
- **[G-2]** set scheme ..................... Set default scheme
Graph schemes

[G-4] schemes intro .................................................. Introduction to schemes
[G-4] scheme economist ............................................ Scheme description: economist
[G-4] scheme s1 ........................................................ Scheme description: s1 family
[G-4] scheme s2 ........................................................ Scheme description: s2 family
[G-4] scheme sj ........................................................ Scheme description: sj

Graph concepts

[G-4] concept: lines ..................................................... Using lines
[G-4] concept: repeated options .................................... Interpretation of repeated options
[G-4] text ................................................................. Text in graphs

Statistics

ANOVA and related

[U] Chapter 26 ......................................................... Overview of Stata estimation commands
[R] anova ............................................................... Analysis of variance and covariance
[R] contrast ............................................................. Contrasts and linear hypothesis tests after estimation
[R] icc ................................................................. Intraclass correlation coefficients
[R] loneway ............................................................. Large one-way ANOVA, random effects, and reliability
[MV] manova ......................................................... Multivariate analysis of variance and covariance
[ME] meglm ........................................................ Multilevel mixed-effects generalized linear model
[ME] mixed ........................................................ Multilevel mixed-effects linear regression
[R] oneway ............................................................. One-way analysis of variance
[R] pkcross ............................................................ Analyze crossover experiments
[R] pkshape .......................................................... Reshape (pharmacokinetic) Latin-square data
[R] pwcompare ....................................................... Pairwise comparisons
[R] regress ............................................................ Linear regression
[XT] xtreg ........................................................ Fixed-, between-, and random-effects and population-averaged linear models

Basic statistics

[R] anova ............................................................... Analysis of variance and covariance
[R] bitest .............................................................. Binomial probability test
[R] ci ................................................................. Confidence intervals for means, proportions, and counts
[R] correlate ......................................................... Correlations (covariances) of variables or coefficients
[D] egen ............................................................... Extensions to generate
[R] esize ............................................................... Effect size based on mean comparison
[R] icc ................................................................. Intraclass correlation coefficients
[R] mean .............................................................. Estimate means
[R] misstable ......................................................... Tabulate missing values
[MV] mvtest .......................................................... Multivariate tests
[R] oneway ............................................................. One-way analysis of variance
[R] proportion ....................................................... Estimate proportions
[R] prtest .............................................................. Tests of proportions
[R] pwmean .......................................................... Pairwise comparisons of means
[R] ranksum ........................................................ Equality tests on unmatched data
[R] ratio ............................................................. Estimate ratios
[R] regress .......................................................... Linear regression
Binary outcomes

[R] sdtest .................................................. Variance-comparison tests
[R] signrank .............................................. Equality tests on matched data
[RD] statsby ............................................. Collect statistics for a command across a by list
[R] summarize ........................................ Summary statistics
[R] table ................................................... Flexible table of summary statistics
[R] tabstat ............................................... Compact table of summary statistics
[R] tabulate oneway .................................... One-way table of frequencies
[R] tabulate twoway .................................... Two-way table of frequencies
[R] tabulate, summarize() ......................... One- and two-way tables of summary statistics
[R] total .................................................... Estimate totals
[R] ttest ................................................... $t$ tests (mean-comparison tests)

Categorical outcomes

[U] Chapter 20 ........................................... Estimation and postestimation commands
[U] Section 26.10 ...................................... Multiple-outcome qualitative dependent-variable models
[R] asclogit ............................................. Alternative-specific conditional logit (McFadden’s choice) model
[R] asmprobit .......................................... Alternative-specific multinomial probit regression
[R] clogit ............................................... Conditional (fixed-effects) logistic regression
[R] mlogit ................................................ Multinomial (polytomous) logistic regression
[R] mprobit ............................................. Multinomial probit regression
[R] nlogit ................................................ Nested logit regression
[R] slogit ............................................... Stereotype logistic regression
Censored and truncated regression models

- [R] heckman ................................................. Heckman selection model
- [R] heckoprobit ........................................... Ordered probit model with sample selection
- [R] heckprobit ............................................ Probit model with sample selection
- [R] intreg ........................................................ Interval regression
- [R] tnbreg .................................................. Truncated negative binomial regression
- [R] tobit ............................................................. Tobit regression
- [R] tpoisson .................................................. Truncated Poisson regression
- [R] truncreg .................................................. Truncated regression
- [XT] xtintreg ................................................ Random-effects interval-data regression models
- [XT] xttobit .................................................. Random-effects tobit models

Cluster analysis

- [U] Section 26.26 ........................................... Multivariate and cluster analysis
- [MV] cluster ...................................................... Introduction to cluster-analysis commands
- [MV] cluster dendrogram .................................... Dendrograms for hierarchical cluster analysis
- [MV] cluster generate ....................................... Generate summary or grouping variables from a cluster analysis
- [MV] cluster kmeans and kmedians ......................... Kmeans and kmedians cluster analysis
- [MV] cluster linkage ............................................. Hierarchical cluster analysis
- [MV] cluster notes ............................................. Place notes in cluster analysis
- [MV] cluster programming subroutines ....................... Add cluster-analysis routines
- [MV] cluster programming utilities .......................... Cluster-analysis programming utilities
- [MV] cluster stop .............................................. Cluster-analysis stopping rules
- [MV] cluster utility ........................................... List, rename, use, and drop cluster analyses
- [MV] clusterstat ................................................ Introduction to clustermat commands
- [MV] measure_dissimilarity .................................. Compute similarity or dissimilarity measures
- [MV] multivariate ............................................. Introduction to multivariate commands

Correspondence analysis

- [MV] ca ......................................................... Simple correspondence analysis
- [MV] mca ....................................................... Multiple and joint correspondence analysis

Count outcomes

- [U] Chapter 20 .................................................. Estimation and postestimation commands
- [U] Section 26.11 ............................................. Count dependent-variable models
- [U] Section 26.18.5 ........................................... Count dependent-variable models with panel data
- [TE] etpoisson ............................................... Poisson regression with endogenous treatment effects
- [R] expoisson .................................................. Exact Poisson regression
- [ME] menbreg .................................................. Multilevel mixed-effects negative binomial regression
- [ME] mepoisson .............................................. Multilevel mixed-effects Poisson regression
- [ME] meqrpoisson ......................................... Multilevel mixed-effects Poisson regression (QR decomposition)
- [R] nbreg ....................................................... Negative binomial regression
- [R] poisson ...................................................... Poisson regression
- [R] tnbreg ..................................................... Truncated negative binomial regression
- [R] tpoisson .................................................. Truncated Poisson regression
- [XT] xtnbreg Fixed-effects, random-effects, & population-averaged negative binomial models
- [XT] xtpoisson ................................................. Truncated Poisson regression
- [R] zinb ....................................................... Zero-inflated negative binomial regression
- [R] zip ......................................................... Zero-inflated Poisson regression
Discriminant analysis

- candisc .............................................. Canonical linear discriminant analysis
-discrim ................................................. Discriminant analysis
- discrim estat ....................................... Postestimation tools for discrim
- discrim knn ......................................... kth-nearest-neighbor discriminant analysis
- discrim lda .......................................... Linear discriminant analysis
- discrim logistic ..................................... Logistic discriminant analysis
- discrim qda .......................................... Quadratic discriminant analysis
- scoreplot ............................................. Score and loading plots
- screeplot ............................................. Scree plot

Do-it-yourself generalized method of moments

- Section 26.22 ........................................ Generalized method of moments (GMM)
- gmm .................................................... Generalized method of moments estimation
- matrix .................................................. Introduction to matrix commands

Do-it-yourself maximum likelihood estimation

- matrix .................................................. Introduction to matrix commands
- ml ...................................................... Maximum likelihood estimation
- mlexp .................................................. Maximum likelihood estimation of user-specified expressions

Endogenous covariates

- Chapter 20 ............................................ Estimation and postestimation commands
- Chapter 26 ............................................ Overview of Stata estimation commands
- etpoisson ............................................. Poisson regression with endogenous treatment effects
- etregress ............................................. Linear regression with endogenous treatment effects
- forecast ................................................ Econometric model forecasting
- gmm ..................................................... Generalized method of moments estimation
- ivpoisson ............................................. Poisson regression with endogenous regressors
- ivprobit .............................................. Probit model with continuous endogenous regressors
- ivregress .............................................. Single-equation instrumental-variables regression
- ivtobit ................................................ Tobit model with continuous endogenous regressors
- reg3 ..................................................... Three-stage estimation for systems of simultaneous equations
- xtabond ................................................ Arellano–Bond linear dynamic panel-data estimation
- xtdpd ..................................................... Linear dynamic panel-data estimation
- xtdpdsys ............................................. Arellano–Bover/Blundell–Bond linear dynamic panel-data estimation
- xthtaylor ............................................. Hausman–Taylor estimator for error-components models
- xtivreg ................................................ Instrumental variables and two-stage least squares for panel-data models

Epidemiology and related

- binreg ................................................ Generalized linear models: Extensions to the binomial family
- brier ................................................... Brier score decomposition
- clogit ................................................ Conditional (fixed-effects) logistic regression
- dstdize ................................................ Direct and indirect standardization
- epitab ................................................ Tables for epidemiologists
- exlogistic ............................................ Exact logistic regression
- icd9 ..................................................... ICD-9-CM diagnostic and procedure codes
- kappa .................................................. Interrater agreement
- logistic ............................................... Logistic regression, reporting odds ratios
- pk ....................................................... Pharmacokinetic (biopharmaceutical) data
[R] pckcross ........................................ Analyze crossover experiments
[R] pkequiv ........................................... Perform bioequivalence tests
[R] pexamime ........................................ Calculate pharmacokinetic measures
[R] pkshape ........................................ Reshape (pharmacokinetic) Latin-square data
[R] pksumm .......................................... Summarize pharmacokinetic data
[R] poisson ........................................... Poisson regression
[R] roc .................................................. Receiver operating characteristic (ROC) analysis
[R] roccomp .......................................... Tests of equality of ROC areas
[R] rocreg ............................................ Receiver operating characteristic (ROC) regression
[R] roctab ............................................ Nonparametric ROC analysis
[R] symmetry ....................................... Symmetry and marginal homogeneity tests
[R] tabulate twoway ................................ Two-way table of frequencies

Estimation related

[R] BIC note ........................................... Calculating and interpreting BIC
[R] constraint ........................................ Define and list constraints
[R] eform_option .................................... Displaying exponentiated coefficients
[R] estimation_option ............................... Estimation options
[R] fp .................................................... Fractional polynomial regression
[R] maximize ......................................... Details of iterative maximization
[R] mfp ................................................... Multivariable fractional polynomial models
[R] mkspline .......................................... Linear and restricted cubic spline construction
[R] stepwise ............................................ Stepwise estimation
[R] vce_option ....................................... Variance estimators
[XT] vce_options ..................................... Variance estimators

Exact statistics

[U] Section 26.12 ..................................... Exact estimators
[R] bitest .............................................. Binomial probability test
[R] centile ............................................. Report centile and confidence interval
[R] ci ..................................................... Confidence intervals for means, proportions, and counts
[R] dstdize ........................................... Direct and indirect standardization
[ST] epitab ............................................. Tables for epidemiologists
[R] exlogistic ......................................... Exact logistic regression
[R] expoison .......................................... Exact Poisson regression
[R] ksmirmov ......................................... Kolmogorov–Smirnov equality-of-distributions test
[R] loneway ........................................... Large one-way ANOVA, random effects, and reliability
[R] ranksum .......................................... Equality tests on unmatched data
[R] roctab ............................................ Nonparametric ROC analysis
[R] symmetry ....................................... Symmetry and marginal homogeneity tests
[R] tabulate twoway ................................ Two-way table of frequencies
[R] tetrachoric ....................................... Tetrachoric correlations for binary variables

Factor analysis and principal components

[MV] alpha .......................... Compute interitem correlations (covariances) and Cronbach’s alpha
[MV] canon ........................................... Canonical correlations
[MV] factor ........................................... Factor analysis
[MV] pca .............................................. Principal component analysis
[MV] rotate ........................................... Orthogonal and oblique rotations after factor and pca
### Generalized linear models

| U | Chapter 20 | Estimation and postestimation commands |
| U | Section 26.6 | Generalized linear models |
| R | binreg | Generalized linear models: Extensions to the binomial family |
| R | glm | Generalized linear models |
| XT | xtgee | Fit population-averaged panel-data models by using GEE |

### Indicator and categorical variables

| U | Section 11.4.3 | Factor variables |
| U | Chapter 25 | Working with categorical data and factor variables |
| R | fvset | Declare factor-variable settings |

### Linear regression and related

| U | Chapter 20 | Estimation and postestimation commands |
| U | Chapter 26 | Overview of Stata estimation commands |
| R | areg | Linear regression with a large dummy-variable set |
| R | cnsreg | Constrained linear regression |
| R | constraint | Define and list constraints |
| R | eivreg | Errors-in-variables regression |
| TE | etpoisson | Poisson regression with endogenous treatment effects |
| TE | etregress | Linear regression with endogenous treatment effects |
| R | fp | Fractional polynomial regression |
| R | frontier | Stochastic frontier models |
| R | glm | Generalized linear models |
| R | heckman | Heckman selection model |
| R | ivpoisson | Poisson regression with endogenous regressors |
| R | ivregress | Single-equation instrumental-variables regression |
| R | ivtobit | Tobit model with continuous endogenous regressors |
| R | lpoly | Kernel-weighted local polynomial smoothing |
| ME | meglm | Multilevel mixed-effects generalized linear model |
| R | mfp | Multivariable fractional polynomial models |
| ME | mixed | Multilevel mixed-effects linear regression |
| MV | mvreg | Multivariate regression |
| R | nestreg | Nested model statistics |
| TS | newey | Regression with Newey–West standard errors |
| TS | prais | Prais–Winsten and Cochrane–Orcutt regression |
| R | qreg | Quantile regression |
| R | reg3 | Three-stage estimation for systems of simultaneous equations |
| R | regress | Linear regression |
| R | rocall | Parametric ROC models |
| R | rreg | Robust regression |
| ST | stcox | Cox proportional hazards model |
| ST | stcrreg | Competing-risks regression |
| R | stepwise | Stepwise estimation |
| ST | streg | Parametric survival models |
| R | sureg | Zellner’s seemingly unrelated regression |
Logistic and probit regression

- **xtlogit**: Random-effects and population-averaged logistic regression
- **xtprobit**: Random-effects and population-averaged probit models
- **xtgee**: Fit population-averaged panel-data models by using GEE
- **xtgls**: Fit panel-data models by using GLS
- **xthtaylor**: Hausman–Taylor estimator for error-components models
- **xtivreg**: Instrumental variables and two-stage least squares for panel-data models
- **xtreg**: Fixed-, between-, and random-effects and population-averaged linear models
- **xtrc**: Random-coefficients model
- **xtregar**: Fixed- and random-effects linear models with an AR(1) disturbance
- **malprobit**: Alternative-specific rank-ordered probit regression
- **asmprobit**: Alternative-specific multinomial probit regression
- **biprobit**: Bivariate probit regression
- **asclogit**: Alternative-specific conditional logit (McFadden’s choice) model
- **clogit**: Conditional (fixed-effects) logistic regression
- **cloglog**: Complementary log-log regression
- **exlogistic**: Exact logistic regression
- **glogit**: Logit and probit regression for grouped data
- **heckprob**: Probit model with sample selection
- **heckprobit**: Probit model with sample selection
- **hetprob**: Heteroskedastic probit model
- **ivprobit**: Probit model with continuous endogenous regressors
- **logistic**: Logistic regression, reporting odds ratios
- **logit**: Logistic regression, reporting coefficients
- **melogit**: Multilevel mixed-effects logistic regression
- **meologit**: Multilevel mixed-effects ordered logistic regression
- **meoprobit**: Multilevel mixed-effects ordered probit regression
- **meprobit**: Multilevel mixed-effects probit regression
- **meqrllogit**: Multilevel mixed-effects logistic regression (QR decomposition)
- **mlogit**: Multinomial (polytomous) logistic regression
- **mprlogit**: Multilevel mixed-effects probit regression
- **nlogit**: Nested logit regression
- **ologit**: Ordered logistic regression
- **oprobit**: Ordered probit regression
- **probit**: Probit regression
- **rologit**: Rank-ordered logistic regression
- **scobit**: Skewed logistic regression
- **slogit**: Stereotype logistic regression
- **xtcloglog**: Random-effects and population-averaged cloglog models
- **xtgee**: Fit population-averaged panel-data models by using GEE
- **xtlogit**: Fixed-effects, random-effects, and population-averaged logit models
- **xtologit**: Random-effects ordered logistic models
- **xtprobit**: Random-effects and population-averaged probit models
- **meqrlogit**: Multilevel mixed-effects logistic regression (QR decomposition)
- **vwls**: Variance-weighted least squares
- **tnbreg**: Truncated negative binomial regression
- **xtabond**: Arellano–Bond linear dynamic panel-data estimation
- **xtdpd**: Linear dynamic panel-data estimation
- **xtgee**: Fit population-averaged panel-data models by using GEE
- **xtgls**: Fit panel-data models by using GLS
- **xthtaylor**: Hausman–Taylor estimator for error-components models
- **xtivreg**: Instrumental variables and two-stage least squares for panel-data models
- **xtreg**: Fixed-, between-, and random-effects and population-averaged linear models
- **xtrc**: Random-coefficients model
- **xtregar**: Fixed- and random-effects linear models with an AR(1) disturbance
Longitudinal data/panel data

- Chapter 20: Estimation and postestimation commands
- Section 26.18: Panel-data models
- meologit: Multilevel mixed-effects ordered logistic regression
- meoprobit: Multilevel mixed-effects ordered probit regression
- mepoisson: Multilevel mixed-effects Poisson regression
- meprobit: Multilevel mixed-effects probit regression
- meqpoisson: Multilevel mixed-effects Poisson regression (QR decomposition)
- mixed: Multilevel mixed-effects linear regression
- quadchk: Check sensitivity of quadrature approximation
- xtintreg: Random-effects interval-data regression models
- xtile: Instrumental variables and two-stage least squares for panel-data models
- xtline: Panel-data line plots
- xtnbreg: Fixed-effects, random-effects, & population-averaged negative binomial models
- xtlogit: Random-effects ordered logistic models
- xtprobit: Random-effects ordered probit models
- xtpcse: Linear regression with panel-corrected standard errors
- xtproposson: Fixed-effects, random-effects, and population-averaged Poisson models
- xtnl: Random-effects and population-averaged probit models
- xtnlreset: Random-coefficients model
- xtnlreg: Fixed-, between-, and random-effects and population-averaged linear models
- xtreg: Fixed- and random-effects linear models with an AR(1) disturbance
- xtset: Declare data to be panel data
- xtsum: Summarize xt data
- xttab: Tabulate xt data
- xtobit: Random-effects tobit models
- xttobit: Random-effects and population-averaged tobit models
- xtunitroot: Panel-data unit-root tests

Mixed models

- Chapter 20: Estimation and postestimation commands
- Section 26.19: Multilevel mixed-effects models
- anova: Analysis of variance and covariance
- icc: Intraclass correlation coefficients
- manova: Multivariate analysis of variance and covariance
- me: Introduction to multilevel mixed-effects models
- mecloglog: Multilevel mixed-effects complementary log-log regression
- meglm: Multilevel mixed-effects generalized linear model
- meprobit: Multilevel mixed-effects logistic regression
- mepoisson: Multilevel mixed-effects negative binomial regression
<table>
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<tr>
<td><strong>Multidimensional scaling and biplots</strong></td>
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<td>[MV] biplot</td>
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<td>[MV] mds</td>
<td>Multidimensional scaling for two-way data</td>
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<td>[MV] mdslong</td>
<td>Multidimensional scaling of proximity data in long format</td>
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<td>[MV] mdsmat</td>
<td>Multidimensional scaling of proximity data in a matrix</td>
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<td>[MV] measure_option</td>
<td>Option for similarity and dissimilarity measures</td>
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<td>[U] Section 26.19</td>
<td>Introduction to multilevel mixed-effects models</td>
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<td>[ME] mecloglog</td>
<td>Multilevel mixed-effects complementary log-log regression</td>
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<td>Impute missing values using chained equations</td>
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<td>[MI] mi impute logit</td>
<td>Impute using logistic regression</td>
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<tr>
<td>[MI] mi impute mlogit</td>
<td>Impute using multinomial logistic regression</td>
</tr>
<tr>
<td>MI</td>
<td>mi impute monotone</td>
</tr>
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<td>MI</td>
<td>mi impute mvn</td>
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<tr>
<td>MI</td>
<td>mi impute nbreg</td>
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<td>MI</td>
<td>mi impute ologit</td>
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<tr>
<td>MI</td>
<td>mi impute pmm</td>
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<tr>
<td>MI</td>
<td>mi impute poisson</td>
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<td>MI</td>
<td>mi impute regress</td>
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<td>MI</td>
<td>mi impute truncreg</td>
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<tr>
<td>MI</td>
<td>mi predict</td>
</tr>
<tr>
<td>MI</td>
<td>mi test</td>
</tr>
</tbody>
</table>

### Multivariate analysis of variance and related techniques

| U        | Section 26.26                             | Multivariate and cluster analysis |
| MV       | canon                                     | Canonical correlations |
| MV       | hotelling                                 | Hotelling’s T-squared generalized means test |
| MV       | manova                                    | Multivariate analysis of variance and covariance |
| MV       | mvreg                                     | Multivariate regression |
| MV       | mvtest covariances                        | Multivariate tests of covariances |
| MV       | mvtest means                              | Multivariate tests of means |

### Nonlinear regression

| R        | boxcox                                   | Box–Cox regression models |
| R        | nl                                       | Nonlinear least-squares estimation |
| R        | nlsur                                    | Estimation of nonlinear systems of equations |

### Nonparametric statistics

| R        | bitest                                    | Binomial probability test |
| R        | bootstrap                                 | Bootstrap sampling and estimation |
| R        | bsample                                   | Sampling with replacement |
| R        | bstat                                     | Report bootstrap results |
| R        | centile                                   | Report centile and confidence interval |
| R        | cusum                                     | Cusum plots and tests for binary variables |
| R        | kdensity                                  | Univariate kernel density estimation |
| R        | ksmirnov                                  | Kolmogorov–Smirnov equality-of-distributions test |
| R        | kwallis                                   | Kruskal–Wallis equality-of-populations rank test |
| R        | lowess                                    | Lowess smoothing |
| R        | lpoly                                     | Kernel-weighted local polynomial smoothing |
| R        | nptrend                                   | Test for trend across ordered groups |
| R        | prtest                                    | Tests of proportions |
| R        | qreg                                      | Quantile regression |
| R        | ranksum                                   | Equality tests on unmatched data |
| R        | roc                                       | Receiver operating characteristic (ROC) analysis |
| R        | roccomp                                   | Tests of equality of ROC areas |
| R        | rocreg                                    | Receiver operating characteristic (ROC) regression |
| R        | rocregplot                                | Plot marginal and covariate-specific ROC curves after rocreg |
| R        | roctab                                    | Nonparametric ROC analysis |
| R        | runtest                                   | Test for random order |
| R        | signrank                                  | Equality tests on matched data |
| R        | simulate                                  | Monte Carlo simulations |
| R        | smooth                                    | Robust nonlinear smoother |
| R        | spearman                                  | Spearman’s and Kendall’s correlations |
### Ordinary outcomes

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Syntax</th>
</tr>
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<tbody>
<tr>
<td>[U]</td>
<td>Chapter 20</td>
<td>Estimation and postestimation commands</td>
</tr>
<tr>
<td>[R]</td>
<td>asprobit</td>
<td>Alternative-specific rank-ordered probit regression</td>
</tr>
<tr>
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<td>heckoprobit</td>
<td>Ordered probit model with sample selection</td>
</tr>
<tr>
<td>[ME]</td>
<td>meologit</td>
<td>Multilevel mixed-effects ordered logistic regression</td>
</tr>
<tr>
<td>[ME]</td>
<td>meoprobit</td>
<td>Multilevel mixed-effects ordered probit regression</td>
</tr>
<tr>
<td>[R]</td>
<td>ologit</td>
<td>Ordered logistic regression</td>
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<tr>
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<tr>
<td>[R]</td>
<td>rologit</td>
<td>Rank-ordered logistic regression</td>
</tr>
<tr>
<td>[XT]</td>
<td>xtologit</td>
<td>Random-effects ordered logistic models</td>
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<tr>
<td>[XT]</td>
<td>xtoprobit</td>
<td>Random-effects ordered probit models</td>
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### Other statistics

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<tr>
<td>[MV]</td>
<td>alpha</td>
<td>Compute interitem correlations (covariances) and Cronbach’s alpha</td>
</tr>
<tr>
<td>[R]</td>
<td>ameans</td>
<td>Arithmetic, geometric, and harmonic means</td>
</tr>
<tr>
<td>[R]</td>
<td>brier</td>
<td>Brier score decomposition</td>
</tr>
<tr>
<td>[R]</td>
<td>centile</td>
<td>Report centile and confidence interval</td>
</tr>
<tr>
<td>[R]</td>
<td>kappa</td>
<td>Interrater agreement</td>
</tr>
<tr>
<td>[MV]</td>
<td>mvtest correlations</td>
<td>Multivariate tests of correlations</td>
</tr>
<tr>
<td>[R]</td>
<td>pcorr</td>
<td>Partial and semipartial correlation coefficients</td>
</tr>
<tr>
<td>[D]</td>
<td>pctile</td>
<td>Create variable containing percentiles</td>
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<tr>
<td>[D]</td>
<td>range</td>
<td>Generate numerical range</td>
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### Pharmacokinetic statistics

<table>
<thead>
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<tr>
<td>[U]</td>
<td>Section 26.27</td>
<td>Pharmacokinetic data</td>
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<tr>
<td>[R]</td>
<td>pk</td>
<td>Pharmacokinetic (biopharmaceutical) data</td>
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<tr>
<td>[R]</td>
<td>pkcollapse</td>
<td>Generate pharmacokinetic measurement dataset</td>
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<td>[R]</td>
<td>pkcross</td>
<td>Analyze crossover experiments</td>
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<tr>
<td>[R]</td>
<td>pkequiv</td>
<td>Perform bioequivalence tests</td>
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<tr>
<td>[R]</td>
<td>pkexamine</td>
<td>Calculate pharmacokinetic measures</td>
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<td>[R]</td>
<td>pkshape</td>
<td>Reshape (pharmacokinetic) Latin-square data</td>
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<td>[R]</td>
<td>pksumm</td>
<td>Summarize pharmacokinetic data</td>
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### Power and sample size

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<td>Power and sample-size analysis</td>
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<td>[PSS]</td>
<td>GUI</td>
<td>Graphical user interface for power and sample-size analysis</td>
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<td>power</td>
<td>Power and sample-size analysis for hypothesis tests</td>
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<td>power onecorrelation</td>
<td>Power analysis for a one-sample correlation test</td>
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<td>Power analysis for a one-sample mean test</td>
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<td>Power analysis for a one-sample proportion test</td>
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<td>Power analysis for a one-sample variance test</td>
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<td>power oneway</td>
<td>Power analysis for one-way analysis of variance</td>
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<td>[PSS]</td>
<td>power pairedmeans</td>
<td>Power analysis for a two-sample paired-means test</td>
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<td>[PSS]</td>
<td>power pairedproportions</td>
<td>Power analysis for a two-sample paired-proportions test</td>
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<tr>
<td>[PSS]</td>
<td>power repeated</td>
<td>Power analysis for repeated-measures analysis of variance</td>
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<td>power twocorrelations</td>
<td>Power analysis for a two-sample correlations test</td>
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<tr>
<td>[PSS]</td>
<td>power twomeans</td>
<td>Power analysis for a two-sample means test</td>
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<tr>
<td>[PSS]</td>
<td>power twoproportions</td>
<td>Power analysis for a two-sample proportions test</td>
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[PSS] power twovariances ................. Power analysis for a two-sample variances test
[PSS] power twoway ........................ Power analysis for two-way analysis of variance
[ST] stpower ............................. Sample size, power, and effect size for survival analysis
[ST] stpower cox ........................ Sample size, power, and effect size for the Cox proportional hazards model
[ST] stpower exponential ............... Sample size and power for the exponential test
[ST] stpower logrank ..................... Sample size, power, and effect size for the log-rank test
[PSS] unbalanced designs ................. Specifications for unbalanced designs

Quality control
[R] cusum .................................. Cusum plots and tests for binary variables
[R] qc ....................................... Quality control charts
[R] serrbar ................................ Graph standard error bar chart

ROC analysis
[U] Section 26.8 ........................... Receiver operating characteristic (ROC) analysis
[R] roc ...................................... Tests of equality of ROC areas
[R] roccomp .................................. Parametric ROC models
[R] rocfit ..................................... Receiver operating characteristic (ROC) regression
[R] rocfit postestimation ............... Postestimation tools for rocfit
[R] rocreg .................................... Postestimation tools for rocreg
[R] rocregplot ............................. Plot marginal and covariate-specific ROC curves after rocreg
[R] roctab .................................. Nonparametric ROC analysis

Rotation
[MV] procrustes ............................. Procrustes transformation
[MV] rotate ................................. Orthogonal and oblique rotations after factor and pca
[MV] rotatemat .............................. Orthogonal and oblique rotations of a Stata matrix

Sample selection models
[U] Chapter 20 .............................. Estimation and postestimation commands
[U] Section 26.16 .......................... Models with endogenous sample selection
[TE] etpoisson ............................. Poisson regression with endogenous treatment effects
[TE] etregress .............................. Linear regression with endogenous treatment effects
[R] heckman .................................. Heckman selection model
[R] heckoprobit ............................ Ordered probit model with sample selection
[R] heckprob ................................. Probit model with sample selection

Simulation/resampling
[R] bootstrap .............................. Bootstrap sampling and estimation
[R] bsample ................................ Sampling with replacement
[R] jackknife ................................ Jackknife estimation
[R] permute ................................ Monte Carlo permutation tests
[R] simulate ................................ Monte Carlo simulations

Standard postestimation tests, tables, and other analyses
[U] Section 13.5 ............................. Accessing coefficients and standard errors
[U] Chapter 20 .............................. Estimation and postestimation commands
[R] contrast ................................. Contrasts and linear hypothesis tests after estimation
Correlations (covariances) of variables or coefficients
Postestimation statistics

Display information criteria

Summarize estimation sample

Display covariance matrix estimates

Save and manipulate estimation results

Describe estimation results

Repeat postestimation command across models

Add notes to estimation results

Redisplay estimation results

Save and use estimation results

Model-selection statistics

Store and restore estimation results

Compare estimation results

Set title for estimation results

Econometric model forecasting

Adjust a variable by add factoring, replacing, etc.

Clear current model from memory

Specify an equation via a coefficient vector

Create a new forecast model

Describe features of the forecast model

Drop forecast variables

Add estimation results to a forecast model

Declare exogenous variables

Add an identity to a forecast model

List forecast commands composing current model

Check whether a forecast model has been started

Obtain static and dynamic forecasts

Hausman specification test

Linear combinations of estimators

Specification link test for single-equation models

Likelihood-ratio test after estimation

Marginal means, predictive margins, and marginal effects

Contrasts of margins

Pairwise comparisons of margins

Graph results from margins (profile plots, etc.)

Multivariate tests

Nonlinear combinations of estimators

Obtain predictions, residuals, etc., after estimation

Obtain nonlinear predictions, standard errors, etc., after estimation

Pairwise comparisons

Seemingly unrelated estimation

Test linear hypotheses after estimation

Test nonlinear hypotheses after estimation

Structural equation modeling

Section 26.4 Structural equation modeling (SEM)

SEM Builder

SEM Builder for generalized models

Display exponentiated coefficients

Equation-level goodness-of-fit statistics
<table>
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<tr>
<th>Example</th>
<th>Description</th>
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</thead>
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<td>1</td>
<td>Single-factor measurement model</td>
</tr>
<tr>
<td>2</td>
<td>Creating a dataset from published covariances</td>
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<td>3</td>
<td>Two-factor measurement model</td>
</tr>
<tr>
<td>4</td>
<td>Goodness-of-fit statistics</td>
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<td>5</td>
<td>Modification indices</td>
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<td>6</td>
<td>Linear regression</td>
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<td>7</td>
<td>Nonrecursive structural model</td>
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<td>8</td>
<td>Testing that coefficients are equal, and constraining them</td>
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<td>9</td>
<td>Structural model with measurement component</td>
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<td>10</td>
<td>MIMIC model</td>
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<td>11</td>
<td>estat framework</td>
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<td>12</td>
<td>Seemingly unrelated regression</td>
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<td>Equation-level Wald test</td>
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<td>Predicted values</td>
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<td>Higher-order CFA</td>
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<td>16</td>
<td>Correlation</td>
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<td>Correlated uniqueness model</td>
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<td>Latent growth model</td>
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<td>Creating multiple-group summary statistics data</td>
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<td>20</td>
<td>Two-factor measurement model by group</td>
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<td>Group-level goodness of fit</td>
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<td>22</td>
<td>Testing parameter equality across groups</td>
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<td>23</td>
<td>Specifying parameter constraints across groups</td>
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<td>24</td>
<td>Reliability</td>
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<td>Creating summary statistics data from raw data</td>
</tr>
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<td>26</td>
<td>Fitting a model with data missing at random</td>
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<td>27g</td>
<td>Single-factor measurement model (generalized response)</td>
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<td>28g</td>
<td>One-parameter logistic IRT (Rasch) model</td>
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<tr>
<td>29g</td>
<td>Two-parameter logistic IRT model</td>
</tr>
<tr>
<td>30g</td>
<td>Two-level measurement model (multilevel, generalized response)</td>
</tr>
<tr>
<td>31g</td>
<td>Two-factor measurement model (generalized response)</td>
</tr>
<tr>
<td>32g</td>
<td>Full structural equation model (generalized response)</td>
</tr>
<tr>
<td>33g</td>
<td>Logistic regression</td>
</tr>
<tr>
<td>34g</td>
<td>Combined models (generalized responses)</td>
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<td>35g</td>
<td>Ordered probit and ordered logit</td>
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<tr>
<td>36g</td>
<td>MIMIC model (generalized response)</td>
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<td>37g</td>
<td>Multinomial logistic regression</td>
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<tr>
<td>38g</td>
<td>Random-intercept and random-slope models (multilevel)</td>
</tr>
<tr>
<td>39g</td>
<td>Three-level model (multilevel, generalized response)</td>
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[SEM] example 40g ................................................. Crossed models (multilevel)
[SEM] example 41g ........................................ Two-level multinomial logistic regression (multilevel)
[SEM] example 42g .......................................... One- and two-level mediation models (multilevel)
[SEM] example 43g ............................................. Tobit regression
[SEM] example 44g ........................................ Interval regression
[SEM] example 45g .............................................. Heckman selection model
[SEM] example 46g .......................................... Endogenous treatment-effects model
[SEM] gsem .................................................. Generalized structural equation model estimation command
[SEM] gsem estimation options .................................. Options affecting estimation
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[SEM] gsem model description options .......................... Model description options
[SEM] gsem path notation extensions ........................ Command syntax for path diagrams
[SEM] gsem postestimation ..................................... Postestimation tools for gsem
[SEM] gsem reporting options ................................ Options affecting reporting of results
[SEM] intro 1 .................................................. Introduction
[SEM] intro 2 ................................................. Learning the language: Path diagrams and command language
[SEM] intro 3 ................................................ Learning the language: Factor-variable notation (gsem only)
[SEM] intro 4 ................................................ Substantive concepts
[SEM] intro 5 ................................................ Tour of models
[SEM] intro 6 ................................................ Comparing groups (sem only)
[SEM] intro 7 ................................................ Postestimation tests and predictions
[SEM] intro 8 ................................................ Robust and clustered standard errors
[SEM] intro 9 ................................................ Standard errors, the full story
[SEM] intro 10 .................................................. Fitting models with survey data (sem only)
[SEM] intro 11 ................................................ Fitting models with summary statistics data (sem only)
[SEM] intro 12 ................................................ Convergence problems and how to solve them
[SEM] lincom .................................................. Linear combinations of parameters
[SEM] lrtest .................................................. Likelihood-ratio test of linear hypothesis
[SEM] methods and formulas for gsem ......................... Methods and formulas
[SEM] methods and formulas for sem ........................ Methods and formulas for sem
[SEM] nlcom ................................................ Nonlinear combinations of parameters
[SEM] predict after gsem .................................. Generalized linear predictions, etc.
[SEM] predict after sem ...................................... Factor scores, linear predictions, etc.
[SEM] sem ..................................................... Structural equation model estimation command
[SEM] sem and gsem option constraints( ) ................ Specifying constraints
[SEM] sem and gsem option covstructure( ) .............. Specifying covariance restrictions
[SEM] sem and gsem option from() ......................... Specifying starting values
[SEM] sem and gsem option reliability() .................. Fraction of variance not due to measurement error
[SEM] sem and gsem path notation ............................. Command syntax for path diagrams
[SEM] sem and gsem syntax options ........................ Options affecting interpretation of syntax
[SEM] sem estimation options ................................ Options affecting estimation
[SEM] sem group options ................................ Fitting models on different groups
[SEM] sem model description options ............................. Model description options
[SEM] sem option method( ) ................................ Specifying method and calculation of VCE
[SEM] sem option noxconditional ......................... Computing means, etc., of observed exogenous variables
[SEM] sem option select( ) ................................ Using sem with summary statistics data
[SEM] sem path notation extensions ........................ Command syntax for path diagrams
[SEM] sem postestimation .................................... Postestimation tools for sem
[SEM] sem reporting options ................................ Options affecting reporting of results
[SEM] sem ssd options ................................ Options for use with summary statistics data
[SEM] ssd .................................................... Making summary statistics data (sem only)
Survey data

[U] Chapter 20  Estimation and postestimation commands
[U] Section 26.20 Survival-time (failure-time) models
[U] Section 26.24 Survey data
[SVY] survey Introduction to survey commands
[SVY] bootstrap_options More options for bootstrap variance estimation
[SVY] brr_options More options for BRR variance estimation
[SVY] direct standardization Direct standardization of means, proportions, and ratios
[SVY] estat Postestimation statistics for survey data
[SVY] jackknife_options More options for jackknife variance estimation
[SVY] ml for svy Maximum pseudolikelihood estimation for survey data
[SVY] poststratification Poststratification for survey data
[P] _robust Robust variance estimates
[SVY] sdr_options More options for SDR variance estimation
[SVY] subpopulation estimation Subpopulation estimation for survey data
[SVY] svy The survey prefix command
[SVY] svy bootstrap Balanced repeated replication for survey data
[SVY] svy brr Estimation commands for survey data
[SVY] svy estimation Jackknife estimation for survey data
[SVY] svy postestimation Postestimation tools for svy
[SVY] svy sdr Successive difference replication for survey data
[SVY] svy: tabulate oneway One-way tables for survey data
[SVY] svy: tabulate twoway Two-way tables for survey data
[SVY] svydescribe Describe survey data
[SVY] svymarkout Mark observations for exclusion on the basis of survey characteristics
[SVY] svyset Declare survey design for dataset
[M] mi XXXset Declare mi data to be svy, st, ts, xt, etc.
[SVY] variance estimation Variance estimation for survey data

Survival analysis

[U] Chapter 20 Estimation and postestimation commands
[U] Section 26.20 Survival-analysis subroutines for programmers
[U] Section 26.29 Survival-time (failure-time) models
[ST] survival analysis Introduction to survival analysis & epidemiological tables commands
[ST] ct Count-time data
[ST] ctset Declare data to be count-time data
[ST] cttost Convert count-time data to survival-time data
[ST] discrete Discrete-time survival analysis
[ST] ltable Life tables for survival data
[ST] span Convert snapshot data to time-span data
[ST] st Survival-time data
[ST] st_is Survival analysis subroutines for programmers
[ST] stbase Form baseline dataset
[ST] stci Confidence intervals for means and percentiles of survival time
[ST] stcox Cox proportional hazards model
[ST] stcox PH-assumption tests Tests of proportional-hazards assumption
[ST] stcrreg Competing-risks regression
[ST] stcurve Plot survivor, hazard, cumulative hazard, or cumulative incidence function
Time series, multivariate

Section 11.4.4 Models with time-series data
Section 13.9 Time-series operators
Chapter 20 Estimation and postestimation commands
Section 26.17 Introduction to time-series commands

Dynamic-factor models
Check the stability condition of ARIMA estimates
Compute dynamic forecasts after var, svar, or vec
Graph forecasts after fcast compute
Econometric model forecasting
Adjust a variable by add factoring, replacing, etc.
Clear current model from memory
Specify an equation via a coefficient vector
Create a new forecast model
Describe features of the forecast model
Drop forecast variables
Add estimation results to a forecast model
Declare exogenous variables
Add an identity to a forecast model
List forecast commands composing current model
Check whether a forecast model has been started
Obtain static and dynamic forecasts
Create and analyze IRFs, dynamic-multiplier functions, and FEVDs
Add results from an IRF file to the active IRF file
Time series, univariate

- Section 11.4.4: Time-series varlists
- Section 13.9: Time-series operators
- Chapter 20: Estimation and postestimation commands
- Section 26.17: Models with time-series data
- time series: Introduction to time-series commands
- arch: Autoregressive conditional heteroskedasticity (ARCH) family of estimators
- arfima: Autoregressive fractionally integrated moving-average models
- arima: ARIMA, ARMAX, and other dynamic regression models
- corrgram: Tabulate and graph autocorrelations
<table>
<thead>
<tr>
<th>Transform and normality tests</th>
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<tbody>
<tr>
<td>[R] boxcox</td>
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<td>[R] ladder</td>
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<td>[R] lnskew0</td>
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Multivariable fractional polynomial models

Multivariate normality tests

Skewness and kurtosis test for normality

Shapiro–Wilk and Shapiro–Francia tests for normality

Treatment effects

Poisson regression with endogenous treatment effects
Linear regression with endogenous treatment effects
Treatment-effects estimation for observational data
Augmented inverse-probability weighting
Introduction to treatment effects for observational data
Advanced introduction to treatment effects for observational data
Inverse-probability weighting
Inverse-probability-weighted regression adjustment
Multivalued treatment effects
Nearest-neighbor matching
Overlap plots
Propensity-score matching
Regression-score matching
Introduction to treatment-effects commands

Matrix commands

Matrix expressions
Display a matrix and control its format
Introduction to matrix commands
Matrix definition, operators, and functions
List, rename, and drop matrices

Post the estimation results
Form cross-product matrices
Name rows and columns
Score data from coefficient vectors
Maximum likelihood estimation

Constrained estimation
Compute similarity or dissimilarity measures
Eigenvalues of nonsymmetric matrices
Access system matrices
Convert variables to matrix and vice versa
Singular value decomposition
Eigenvalues and eigenvectors of symmetric matrices
Mata

[D] putmata ............................................. Put Stata variables into Mata and vice versa

Programming

Basics

[U] Chapter 18 ................................................................. Programming Stata
[U] Section 18.3 ................................................................. Macros
[U] Section 18.11 ............................................................... Ado-files
[P] comments ......................................................... Add comments to programs
[P] fvexpand .......................................................... Expand factor varlists
[P] macro ............................................................... Macro definition and manipulation
[P] program ......................................................... Define and manipulate programs
[P] return ............................................................. Return stored results

Program control

[U] Section 18.11.1 ........................................................ Version
[P] capture ............................................................... Capture return code
[P] continue ............................................................. Break out of loops
[P] error ................................................................. Display generic error message and exit
[P] foreach ............................................................. Loop over items
[P] forvalues .......................................................... Loop over consecutive values
[P] if ................................................................. if programming command
[P] version ............................................................. Version control
[P] while ............................................................. Looping

Parsing and program arguments

[U] Section 18.4 ............................................................... Program arguments
[P] confirm ............................................................. Argument verification
[P] gettoken ........................................................... Low-level parsing
[P] levelsof ......................................................... Levels of variable
[P] numlist ........................................................... Parse numeric lists
[P] syntax ............................................................ Parse Stata syntax
[P] tokenize ............................................................ Divide strings into tokens

Console output

[P] dialog programming .............................................. Dialog programming
[P] display .......................................................... Display strings and values of scalar expressions
[P] smcl .............................................................. Stata Markup and Control Language
[P] tabdisp .......................................................... Display tables

Commonly used programming commands

[P] byable ............................................................. Make programs byable
[P] #delimit ............................................................. Change delimiter
[P] exit ................................................................. Exit from a program or do-file
[R] fvrevar .......................................................... Factor-variables operator programming command
[P] mark ............................................................. Mark observations for inclusion
[P] matrix ............................................................. Introduction to matrix commands
Debugging

- pause: Program debugging command
- timer: Time sections of code by recording and reporting time spent
- trace: Debug Stata programs

Advanced programming commands

- _docx*: Generate Office Open XML (.docx) file
- automation: Automation
- break: Suppress Break key
- char: Characteristics
- class: Object-oriented programming (classes)
- class exit: Exit class-member program and return result
- classutil: Class programming utility
- estat programming: Controlling estat after user-written commands
- _estimates: Manage estimation results
- file: Read and write ASCII text and binary files
- findfile: Find file in path
- include: Include commands from file
- java: Java plugins
- javacall: Call a static Java method
- macro: Macro definition and manipulation
- macro lists: Manipulate lists
- ml: Maximum likelihood estimation
- moptimize(): Model optimization
- optimize(): Function optimization
- plugin: Load a plugin
- postfile: Post results in Stata dataset
- _predict_: Obtain predictions, residuals, etc., after estimation programming command
- program properties: Properties of user-defined programs
- putexcel: Export results to an Excel file
- putmata: Put Stata variables into Mata and vice versa
- _return_: Preserve stored results
- _rmcoll_: Remove collinear variables
- _robust_: Robust variance estimates
- serset: Create and manipulate sersets
- snapshot: Save and restore data snapshots
- unab: Unabbreviate variable list
- unabbrev: Unabbreviate command name
- varabbrev: Control variable abbreviation
### Special-interest programming commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>bstat</td>
<td>Report bootstrap results</td>
</tr>
<tr>
<td>cluster programming subroutines</td>
<td>Add cluster-analysis routines</td>
</tr>
<tr>
<td>cluster programming utilities</td>
<td>Cluster-analysis programming utilities</td>
</tr>
<tr>
<td>fvrevar</td>
<td>Factor-variables operator programming command</td>
</tr>
<tr>
<td>matrix dissimilarity</td>
<td>Compute similarity or dissimilarity measures</td>
</tr>
<tr>
<td>mi select</td>
<td>Programmer’s alternative to mi extract</td>
</tr>
<tr>
<td>st_is</td>
<td>Survival analysis subroutines for programmers</td>
</tr>
<tr>
<td>svymarkout</td>
<td>Mark observations for exclusion on the basis of survey characteristics</td>
</tr>
<tr>
<td>technical</td>
<td>Details for programmers</td>
</tr>
<tr>
<td>tsrevar</td>
<td>Time-series operator programming command</td>
</tr>
</tbody>
</table>

### Projects

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>Organize Stata files</td>
</tr>
</tbody>
</table>

### File formats

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>file formats .dta</td>
<td>Description of .dta file format</td>
</tr>
</tbody>
</table>

### Mata

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mata Reference Manual</td>
<td></td>
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</tbody>
</table>

### Interface features

<table>
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<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1 (GSM, GSU, GSW)</td>
<td>Introducing Stata—sample session</td>
</tr>
<tr>
<td>Chapter 2 (GSM, GSU, GSW)</td>
<td>The Stata user interface</td>
</tr>
<tr>
<td>Chapter 3 (GSM, GSU, GSW)</td>
<td>Using the Viewer</td>
</tr>
<tr>
<td>Chapter 6 (GSM, GSU, GSW)</td>
<td>Using the Data Editor</td>
</tr>
<tr>
<td>Chapter 7 (GSM, GSU, GSW)</td>
<td>Using the Variables Manager</td>
</tr>
<tr>
<td>Chapter 13 (GSM, GSU, GSW)</td>
<td>Using the Do-file Editor—automating Stata</td>
</tr>
<tr>
<td>Chapter 15 (GSM, GSU, GSW)</td>
<td>Editing graphs</td>
</tr>
<tr>
<td>dialog programming</td>
<td>Dialog programming</td>
</tr>
<tr>
<td>doedit</td>
<td>Edit do-files and other text files</td>
</tr>
<tr>
<td>edit</td>
<td>Browse or edit data with Data Editor</td>
</tr>
<tr>
<td>sleep</td>
<td>Pause for a specified time</td>
</tr>
<tr>
<td>smcl</td>
<td>Stata Markup and Control Language</td>
</tr>
<tr>
<td>varmanage</td>
<td>Manage variable labels, formats, and other properties</td>
</tr>
<tr>
<td>viewsource</td>
<td>View source code</td>
</tr>
<tr>
<td>window fopen</td>
<td>Display open/save dialog box</td>
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<tr>
<td>window manage</td>
<td>Manage window characteristics</td>
</tr>
<tr>
<td>window menu</td>
<td>Create menus</td>
</tr>
<tr>
<td>window programming</td>
<td>Programming menus and windows</td>
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<tr>
<td>window push</td>
<td>Copy command into Review window</td>
</tr>
<tr>
<td>window stopbox</td>
<td>Display message box</td>
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</tbody>
</table>