

Subject and author index

This is the subject and author index for the *Programming Reference Manual*. Readers interested in topics other than programming should see the combined subject index (and the combined author index) in the *Quick Reference and Index*. The combined index indexes the *Getting Started* manuals, the *User's Guide*, and all the reference manuals except the *Mata Reference Manual*.

Semicolons set off the most important entries from the rest. Sometimes no entry will be set off with semicolons, meaning that all entries are equally important.

```
* comment indicator, [P] comments
., class, [P] class
/* */ comment delimiter, [P] comments
// comment indicator, [P] comments
/// comment indicator, [P] comments
; delimiter, [P] #delimit
```

A

abbreviations,
 unabbreviating command names, [P] **unabcmd**
 unabbreviating variable list, [P] **unab**; [P] **syntax**
accum, **matrix** subcommand, [P] **matrix accum**
add, **return** subcommand, [P] **return**
ado-files, [P] **sysdir**, [P] **version**
 adding comments to, [P] **comments**
 debugging, [P] **trace**
 long lines, [P] **#delimit**
adopath command, [P] **sysdir**
adosize set command, [P] **sysdir**
adosubdir macro extended function, [P] **macro**
algebraic expressions, functions, and operators, [P]
 matrix define
all macro extended function, [P] **macro**
alphanumeric variables, see string variables, parsing
Anderson, E., [P] **matrix eigenvalues**
appending rows and columns to matrix, [P] **matrix**
 define
args command, [P] **syntax**
arithmetic operators, [P] **matrix define**
arrays, class, [P] **class**
.Arrdropall built-in class modifier, [P] **class**
.Arrdropel built-in class modifier, [P] **class**
.arrindexof built-in class function, [P] **class**
.arrnels built-in class function, [P] **class**
.Arrpop built-in class modifier, [P] **class**
.Arrpush built-in class modifier, [P] **class**
as error, **display** directive, [P] **display**
as input, **display** directive, [P] **display**
as result, **display** directive, [P] **display**
as text, **display** directive, [P] **display**
as txt, **display** directive, [P] **display**
ASCII text files, writing and reading, [P] **file**

_asis, **display** directive, [P] **display**
assignment, class, [P] **class**
Automation, [P] **automation**

B

Bai, Z., [P] **matrix eigenvalues**
BASE directory, [P] **sysdir**
basis, orthonormal, [P] **matrix svd**
Baum, C. F., [P] **intro**, [P] **levelsof**
Beckett, S., [P] **pause**
Bibby, J. M., [P] **matrix dissimilarity**
binary files, writing and reading, [P] **file**
Binder, D. A., [P] **_robust**
Bischof, C., [P] **matrix eigenvalues**
Blackford, S., [P] **matrix eigenvalues**
bootstrap sampling and estimation, [P] **postfile**
Boyle, J. M., [P] **matrix symeigen**
break command, [P] **break**
Break key, interception, [P] **break**, [P] **capture**
built-in, class, [P] **class**
_by() function, [P] **byable**
by varlist: prefix, [P] **byable**
byable, [P] **byable**
by-groups, [P] **byable**
_byindex() function, [P] **byable**
_bylastcall() function, [P] **byable**
_byn1() function, [P] **byable**
_byn2() function, [P] **byable**

C

c(adopath) c-class value, [P] **creturn**, [P] **sysdir**
c(adosize) c-class value, [P] **creturn**, [P] **sysdir**
c(ALPHA) c-class value, [P] **creturn**
c(alpha) c-class value, [P] **creturn**
c(autotabgraphs) c-class value, [P] **creturn**
c(born_date) c-class value, [P] **creturn**
c(byteorder) c-class value, [P] **creturn**
c(changed) c-class value, [P] **creturn**
c(checksum) c-class value, [P] **creturn**
c(cmdlen) c-class value, [P] **creturn**
c(console) c-class value, [P] **creturn**
c(copycolor) c-class value, [P] **creturn**
c(current_date) c-class value, [P] **creturn**
c(current_time) c-class value, [P] **creturn**
c(dirsep) c-class value, [P] **creturn**
c(dockable) c-class value, [P] **creturn**
c(dockingguides) c-class value, [P] **creturn**
c(doublebuffer) c-class value, [P] **creturn**
c(dp) c-class value, [P] **creturn**
c(eolchar) c-class value, [P] **creturn**
c(epsdouble) c-class value, [P] **creturn**
c(epsfloat) c-class value, [P] **creturn**
c(eqlen) c-class value, [P] **creturn**
c(fastscroll) c-class value, [P] **creturn**
c(filedate) c-class value, [P] **creturn**

c(filename) c-class value, [P] **creturn**
c(flavor) c-class value, [P] **creturn**
c(graphics) c-class value, [P] **creturn**
c(httpproxy) c-class value, [P] **creturn**
c(httpproxyauth) c-class value, [P] **creturn**
c(httpproxyhost) c-class value, [P] **creturn**
c(httpproxyport) c-class value, [P] **creturn**
c(httpproxypw) c-class value, [P] **creturn**
c(httpproxyuser) c-class value, [P] **creturn**
c(k) c-class value, [P] **creturn**
c(level) c-class value, [P] **creturn**
c(linegap) c-class value, [P] **creturn**
c(linesize) c-class value, [P] **creturn**
c(locksplitters) c-class value, [P] **creturn**
c(logtype) c-class value, [P] **creturn**
c(macgphengine) c-class value, [P] **creturn**
c(machine_type) c-class value, [P] **creturn**
c(macrolen) c-class value, [P] **creturn**
c(matacache) c-class value, [P] **creturn**
c(matafavor) c-class value, [P] **creturn**
c(matalibs) c-class value, [P] **creturn**
c(matalnum) c-class value, [P] **creturn**
c(matamofirst) c-class value, [P] **creturn**
c(mataoptimize) c-class value, [P] **creturn**
c(matastrict) c-class value, [P] **creturn**
c(matsize) c-class value, [P] **creturn**
c(maxbyte) c-class value, [P] **creturn**
c(max_cmdlen) c-class value, [P] **creturn**
c(maxdb) c-class value, [P] **creturn**
c(maxdouble) c-class value, [P] **creturn**
c(maxfloat) c-class value, [P] **creturn**
c(maxint) c-class value, [P] **creturn**
c(maxiter) c-class value, [P] **creturn**
c(max_k_current) c-class value, [P] **creturn**
c(max_k_theory) c-class value, [P] **creturn**
c(maxlong) c-class value, [P] **creturn**
c(max_macrolen) c-class value, [P] **creturn**
c(max_matsize) c-class value, [P] **creturn**
c(max_N_current) c-class value, [P] **creturn**
c(max_N_theory) c-class value, [P] **creturn**
c(maxstrvarlen) c-class value, [P] **creturn**
c(maxvar) c-class value, [P] **creturn**
c(max_width_current) c-class value, [P] **creturn**
c(max_width_theory) c-class value, [P] **creturn**
c(memory) c-class value, [P] **creturn**
c(minbyte) c-class value, [P] **creturn**
c(mindouble) c-class value, [P] **creturn**
c(minfloat) c-class value, [P] **creturn**
c(minint) c-class value, [P] **creturn**
c(minlong) c-class value, [P] **creturn**
c(min_matsize) c-class value, [P] **creturn**
c(mode) c-class value, [P] **creturn**
c(Mons) c-class value, [P] **creturn**
c(Months) c-class value, [P] **creturn**
c(more) c-class value, [P] **creturn**, [P] **more**
c(MP) c-class value, [P] **creturn**
c(N) c-class value, [P] **creturn**
c(namelen) c-class value, [P] **creturn**
c(noisily) c-class value, [P] **creturn**
c(notifyuser) c-class value, [P] **creturn**
c(odbcmgr) c-class value, [P] **creturn**
c(os) c-class value, [P] **creturn**
c(osdtl) c-class value, [P] **creturn**
c(pagesize) c-class value, [P] **creturn**
c(persistfv) c-class value, [P] **creturn**
c(persistvtopic) c-class value, [P] **creturn**
c(pi) c-class value, [P] **creturn**
c(pinnable) c-class value, [P] **creturn**
c(playsnd) c-class value, [P] **creturn**
c(printcolor) c-class value, [P] **creturn**
c(processors) c-class value, [P] **creturn**
c(processors_lic) c-class value, [P] **creturn**
c(processors_mach) c-class value, [P] **creturn**
c(processors_max) c-class value, [P] **creturn**
c(pwd) c-class value, [P] **creturn**
c(rc) c-class value, [P] **capture**, [P] **creturn**
c(reventries) c-class value, [P] **creturn**
c(revkeyboard) c-class value, [P] **creturn**
c(revwindow) c-class value, [P] **creturn**
c(rmsg) c-class value, [P] **creturn**, [P] **rmsg**
c(rmsg_time) c-class value, [P] **creturn**
c(scheme) c-class value, [P] **creturn**
c(scrollbufsize) c-class value, [P] **creturn**
c(SE) c-class value, [P] **creturn**
c(searchdefault) c-class value, [P] **creturn**
c(seed) c-class value, [P] **creturn**
c(smallestdouble) c-class value, [P] **creturn**
c(smoothfonts) c-class value, [P] **creturn**
c(smoothsize) c-class value, [P] **creturn**
c(stata_version) c-class value, [P] **creturn**
c(sysdir_base) c-class value, [P] **creturn**, [P] **sysdir**
c(sysdir_oldplace) c-class value, [P] **creturn**, [P] **sysdir**
c(sysdir_personal) c-class value, [P] **creturn**, [P] **sysdir**
c(sysdir_plus) c-class value, [P] **creturn**, [P] **sysdir**
c(sysdir_site) c-class value, [P] **creturn**, [P] **sysdir**
c(sysdir_stata) c-class value, [P] **creturn**, [P] **sysdir**
c(sysdir_updates) c-class value, [P] **creturn**, [P] **sysdir**
c(timeout1) c-class value, [P] **creturn**
c(timeout2) c-class value, [P] **creturn**
c(tmpdir) c-class value, [P] **creturn**
c(trace) c-class value, [P] **creturn**, [P] **trace**
c(tracedepth) c-class value, [P] **creturn**, [P] **trace**
c(traceexpand) c-class value, [P] **creturn**, [P] **trace**
c(tracehilite) c-class value, [P] **creturn**, [P] **trace**
c(traceindent) c-class value, [P] **creturn**, [P] **trace**
c(tracenumber) c-class value, [P] **creturn**, [P] **trace**
c(tracesep) c-class value, [P] **creturn**, [P] **trace**
c(type) c-class value, [P] **creturn**
c(update_interval) c-class value, [P] **creturn**
c(update_prompt) c-class value, [P] **creturn**

- c(update_query)** c-class value, [P] **creturn**
c(use_atsui_graph) c-class value, [P] **creturn**
c(use_qd_text) c-class value, [P] **creturn**
c(username) c-class value, [P] **creturn**
c(varabbrev) c-class value, [P] **creturn**
c(varkeyboard) c-class value, [P] **creturn**
c(varlabelpos) c-class value, [P] **creturn**
c(varwindow) c-class value, [P] **creturn**
c(version) c-class value, [P] **creturn**, [P] **version**
c(virtual) c-class value, [P] **creturn**
c(Wdays) c-class value, [P] **creturn**
c(Weekdays) c-class value, [P] **creturn**
c(width) c-class value, [P] **creturn**
capture command, [P] **capture**
casewise deletion, [P] **mark**
c-class command, [P] **creturn**
cdir, **classutil** subcommand, [P] **classutil**
certifying data, [P] **_datasignature**, [P] **signestimationsample**
_char(#), **display** directive, [P] **display**
char
 define command, [P] **char**
 list command, [P] **char**
 rename command, [P] **char**
char macro extended function, [P] **macro**
characteristics, [P] **char**
charset, **set** subcommand, [P] **smcl**
checkestimationsample command, [P] **signestimationsample**
checksums of data, [P] **_datasignature**
Cholesky decomposition, [P] **matrix define**
cholesky() matrix function, [P] **matrix define**
class
 definition, [P] **class**
 programming, [P] **class**
 programming utilities, [P] **classutil**
class exit command, [P] **class exit**
.classmv built-in class function, [P] **class**
.classname built-in class function, [P] **class**
classutil
 cdir command, [P] **classutil**
 describe command, [P] **classutil**
 dir command, [P] **classutil**
 drop command, [P] **classutil**
 which command, [P] **classutil**
classwide variable, [P] **class**
clear,
 ereturn subcommand, [P] **ereturn**; [P] **return**
 _estimates subcommand, [P] **_estimates**
 postutil subcommand, [P] **postfile**
 return subcommand, [P] **return**
 rserset subcommand, [P] **rserset**
 sreturn subcommand, [P] **return**; [P] **program**
 timer subcommand, [P] **timer**
clearing estimation results, [P] **ereturn**, [P] **_estimates**
close, **file** subcommand, [P] **file**
cluster estimator of variance, [P] **_robust**
cluster sampling, [P] **_robust**
Cochran, W. G., [P] **levelsof**
code, timing, [P] **timer**
coefficients (from estimation), **accessing**, [P] **ereturn**, [P] **matrix get**
coleq macro extended function, [P] **macro**
coleq, **matrix** subcommand, [P] **matrix rownames**
colfullnames macro extended function, [P] **macro**
collinear variables, removing, [P] **_rmcoll**
colnames macro extended function, [P] **macro**
colnames, **matrix** subcommand, [P] **matrix rownames**
colnumb() matrix function, [P] **matrix define**
colors, specifying in programs, [P] **display**
colsof() matrix function, [P] **matrix define**
_column(#), **display** directive, [P] **display**
columns of matrix,
 appending to, [P] **matrix define**
 names of, [P] **ereturn**, [P] **matrix define**, [P] **matrix rownames**
 operators on, [P] **matrix define**
command
 arguments, [P] **gettoken**, [P] **syntax**, [P] **tokenize**
 parsing, [P] **gettoken**, [P] **syntax**, [P] **tokenize**
commands,
 aborting, [P] **continue**
 repeating automatically, [P] **byable**, [P] **continue**, [P] **foreach**, [P] **forvalues**, [P] **while**
 unabbreviating names of, [P] **unabcmd**
comments, adding to programs, [P] **comments**
compatibility of Stata programs across releases, [P] **version**
compound double quotes, [P] **macro**
condition statement, [P] **if**
confirm
 existence command, [P] **confirm**
 file command, [P] **confirm**
 format command, [P] **confirm**
 matrix command, [P] **confirm**
 names command, [P] **confirm**
 number command, [P] **confirm**
 scalar command, [P] **confirm**
 variable command, [P] **confirm**
console,
 controlling scrolling of output, [P] **more**
 obtaining input from, [P] **display**
constrained estimation, programming, [P] **makecns**
constraint macro extended function, [P] **macro**
constraint matrix, creating and displaying, [P] **makecns**
context, class, [P] **class**
_continue, **display** directive, [P] **display**
continue command, [P] **continue**
Cook, R. D., [P] **_predict**
.copy built-in class function, [P] **class**
copy macro extended function, [P] **macro**
corr() matrix function, [P] **matrix define**
correlation, matrices, [P] **matrix define**

covariance matrix of estimators, [P] **ereturn**, [P] **matrix get**
 Cox, G. M., [P] **levelsof**
 Cox, N. J., [P] **levelsof**, [P] **matrix define**
 create, **seriset** subcommand, [P] **seriset**
 create_cspline, **seriset** subcommand, [P] **seriset**
 create_xmedians, **seriset** subcommand, [P] **seriset**
 creturn list command, [P] **creturn**
 cross-product matrices, [P] **matrix accum**
 cutil, see **classutil**

D

data,
 characteristics of, see characteristics
 checksums of, [P] **signestimationsample**
 current, [P] **creturn**
 preserving, [P] **preserve**
 data label macro extended function, [P] **macro**
 data signature, [P] **_datasignature**, [P] **signestimationsample**
 _datasignature command, [P] **_datasignature**
 date and time, [P] **creturn**
 debugging, [P] **trace**; [P] **discard**, [P] **pause**
 .Declare built-in class modifier, [P] **class**
 declare, class, [P] **class**
 define,
 char subcommand, [P] **char**
 matrix subcommand, [P] **matrix define**
 program subcommand, [P] **program**, [P] **program properties**
 #delimit command, [P] **#delimit**
 delimiter
 for comments, [P] **comments**
 for lines, [P] **#delimit**
 Demmel, J., [P] **matrix eigenvalues**
 describe, **classutil** subcommand, [P] **classutil**
 destructors, class, [P] **class**
 det() matrix function, [P] **matrix define**
 determinant of matrix, [P] **matrix define**
 diag() matrix function, [P] **matrix define**
 diag0cnt() matrix function, [P] **matrix define**
 diagonals of matrices, [P] **matrix define**
 dialog
 box, [P] **dialog programming**, [P] **window programming**
 programming, [P] **dialog programming**, [P] **window programming**
 dir,
 classutil subcommand, [P] **classutil**
 _estimates subcommand, [P] **_estimates**
 macro subcommand, [P] **macro**
 matrix subcommand, [P] **matrix utility**
 postutil subcommand, [P] **postfile**
 program subcommand, [P] **program**
 _return subcommand, [P] **_return**
 seriset subcommand, [P] **seriset**
 dir macro extended function, [P] **macro**

directories and paths, [P] **creturn**
 directory, class, [P] **classutil**
 discard command, [P] **discard**
 display command, [P] **display**; [P] **macro**
 display, **ereturn** subcommand, [P] **ereturn**
 display formats, [P] **macro**
 display macro extended function, [P] **display**
 displaying
 macros, [P] **macro**
 matrix, [P] **matrix utility**
 output, [P] **display**, [P] **quietly**, [P] **smcl**, [P] **tabdisp**
 scalar expressions, [P] **display**, [P] **scalar**
 dissimilarity
 matrices, [P] **matrix dissimilarity**
 measures, [P] **matrix dissimilarity**
 dissimilarity, matrix subcommand, [P] **matrix dissimilarity**
 distance matrices, [P] **matrix dissimilarity**
 DLL, [P] **plugin**
 do-files, [P] **break**, [P] **include**, [P] **version**
 adding comments to, [P] **comments**
 long lines, [P] **#delimit**
 Dongarra, J. J., [P] **matrix eigenvalues**, [P] **matrix symeigen**
 double quotes, [P] **macro**
 drop,
 classutil subcommand, [P] **classutil**
 _estimates subcommand, [P] **_estimates**
 macro subcommand, [P] **macro**
 matrix subcommand, [P] **matrix utility**
 program subcommand, [P] **program**
 _return subcommand, [P] **_return**
 seriset subcommand, [P] **seriset**
 dropping programs, [P] **discard**
 .dta file suffix, technical description, [P] **file formats**
 .dta
 Du Croz, J., [P] **matrix eigenvalues**
 _dup(#), display directive, [P] **display**
 .dynamicmv built-in class function, [P] **class**

E

e() scalars, macros, matrices, functions, [P] **ereturn**, [P] **_estimates**, [P] **return**
 e(functions) macro extended function, [P] **macro**
 e(macros) macro extended function, [P] **macro**
 e(matrices) macro extended function, [P] **macro**
 e(sample) function, [P] **ereturn**, [P] **return**
 e(scalars) macro extended function, [P] **macro**
 e-class command, [P] **program**, [P] **return**
 eigenvalues, [P] **matrix eigenvalues**, [P] **matrix symeigen**
 eigenvalues and eigenvectors, [P] **matrix svd**, [P] **matrix symeigen**
 eigenvalues, matrix subcommand, [P] **matrix eigenvalues**
 e1() matrix function, [P] **matrix define**

else command, [P] **if**
 ending a Stata session, [P] **exit**
 environment macro extended function, [P] **macro**
 environment variables (Unix), [P] **macro**
 equation names of matrix, [P] **matrix rownames**; [P] **ereturn**, [P] **matrix define**
ereturn
 clear command, [P] **ereturn**; [P] **return**
 display command, [P] **ereturn**
 list command, [P] **ereturn**
 local command, [P] **ereturn**; [P] **return**
 matrix command, [P] **ereturn**; [P] **return**
 post command, [P] **ereturn**, [P] **makecns**; [P] **return**
 repost command, [P] **ereturn**; [P] **return**
 scalar command, [P] **ereturn**; [P] **return**
error
 handling, [P] **capture**, [P] **confirm**, [P] **error**
 messages and return codes, [P] **error**, [P] **rmsg**, *also*
see error handling
 error command, [P] **error**
 estat, [P] **estat programming**
_estimates
 clear command, [P] **_estimates**
 dir command, [P] **_estimates**
 drop command, [P] **_estimates**
 hold command, [P] **_estimates**
 unhold command, [P] **_estimates**
estimation
 commands, [P] **ereturn**, [P] **_estimates**
 accessing stored information from, [P] **matrix get**
 allowing constraints in, [P] **makecns**
 eliminating stored information from, [P] **discard**
 obtaining predictions after, [P] **_predict**
 obtaining robust estimates, [P] **_robust**
 saving results from, [P] **_estimates**
 results,
 clearing, [P] **ereturn**, [P] **_estimates**
 listing, [P] **ereturn**, [P] **_estimates**
 saving, [P] **ereturn**, [P] **_estimates**
 estimators, covariance matrix of, [P] **ereturn**, [P] **matrix get**
existence, **confirm** subcommand, [P] **confirm**
 exit class program, [P] **class exit**
 exit, **class** subcommand, [P] **class exit**
 exit command, [P] **capture**, [P] **exit**
 exiting Stata, *see* **exit** command
 expand factor varlists, [P] **fvexpand**
 expressions, [P] **matrix define**
 extended macro functions, [P] **char**, [P] **display**, [P] **macro**, [P] **macro lists**, [P] **seriset**

F

factor variables, [P] **fvexpand**, [P] **intro**, [P] **matrix rownames**, [P] **_rmcoll**, [P] **syntax**, [P] **unab**
file
 close command, [P] **file**

file, continued

open command, [P] **file**
 query command, [P] **file**
 read command, [P] **file**
 seek command, [P] **file**
serisetread command, [P] **seriset**
serisetwrite command, [P] **seriset**
 set command, [P] **file**
 write command, [P] **file**
file, **confirm** subcommand, [P] **confirm**
file, find in path, [P] **findfile**
 file format, Stata, [P] **file formats .dta** files,
 opening, [P] **window programming**
 reading ASCII text or binary, [P] **file**
 saving, [P] **window programming**
 temporary, [P] **macro**, [P] **preserve**, [P] **scalar**
 writing ASCII text or binary, [P] **file**
findfile command, [P] **findfile**
 finding file in path, [P] **findfile**
 Fisher, R. A., [P] **levelsof**
 Flannery, B. P., [P] **matrix symeigen**
 fopen, window subcommand, [P] **window programming**
foreach command, [P] **foreach**
format, **confirm** subcommand, [P] **confirm**
format macro extended function, [P] **macro**
 formatting contents of macros, [P] **macro**
forvalues command, [P] **forvalues**
 Frankel, M. R., [P] **_robust**
 fsave, window subcommand, [P] **window programming**
 Fuller, W. A., [P] **_robust**
 functions
 extended macro, [P] **char**, [P] **display**, [P] **macro**, [P] **macro lists**, [P] **seriset**
 matrix, [P] **matrix define**
fvexpand command, [P] **fvexpand**
fvunab command, [P] **unab**

G

g2 inverse of matrix, [P] **matrix define**, [P] **matrix svd**
 Gail, M. H., [P] **_robust**
 Garbow, B. S., [P] **matrix symeigen**
 generalized
 inverse of matrix, [P] **matrix define**, [P] **matrix svd**
 method of moments (GMM), [P] **matrix accum**
get() matrix function, [P] **matrix define**, [P] **matrix get**
gettoken command, [P] **gettoken**
 Global, class prefix operator, [P] **class**
 global command, [P] **macro**
 glsaccum, matrix subcommand, [P] **matrix accum**
 Gould, W. W., [P] **_datasignature**, [P] **_robust**, [P] **intro**, [P] **matrix mkmat**, [P] **postfile**
 graphical user interface, [P] **dialog programming**
 Greenbaum, A., [P] **matrix eigenvalues**

Greene, W. H., [P] **matrix accum**
GUI programming, [P] **dialog programming**

H

hadamard() matrix function, [P] **matrix define**
Hamilton, J. D., [P] **matrix eigenvalues**
Hammarling, S., [P] **matrix eigenvalues**
Heinecke, K., [P] **matrix mkmat**
heteroskedasticity, robust variances, see **robust hold**,
 _estimates subcommand, [P] **_estimates**
 _return subcommand, [P] **_return**
Huber, P. J., [P] **_robust**
Huber/White/sandwich estimator of variance, see **robust**,
 Huber/White/sandwich estimator of variance

I

I() matrix function, [P] **matrix define**
identifier, class, [P] **class**
identity matrix, [P] **matrix define**
if exp, [P] **syntax**
if programming command, [P] **if**
Ikebe, Y., [P] **matrix symeigen**
immediate commands, [P] **display**
implied context, class, [P] **class**
in range modifier, [P] **syntax**
in smc1, **display** directive, [P] **display**
include command, [P] **include**
information matrix, [P] **matrix get**
inheritance, [P] **class**
initialization, class, [P] **class**
input, **matrix** subcommand, [P] **matrix define**
input, obtaining from console in programs, see **console**,
 obtaining input from
instance, class, [P] **class**
 .instancemv built-in class function, [P] **class**
instance-specific variable, [P] **class**
inv() matrix function, [P] **matrix define**
inverse of matrix, [P] **matrix define**, [P] **matrix svd**
invsym() matrix function, [P] **matrix define**
.isa built-in class function, [P] **class**
.isofclass built-in class function, [P] **class**
issymmetric() matrix function, [P] **matrix define**

J

J() matrix function, [P] **matrix define**
Jann, B., [P] **mark**

K

Kaufman, L., [P] **matrix dissimilarity**
Kennedy Jr., W., [P] **_robust**
Kent, J. T., [P] **_robust**, [P] **matrix dissimilarity**
Kish, L., [P] **_robust**

Klema, V. C., [P] **matrix symeigen**
Kolev, G. I., [P] **scalar**
Kronecker product, [P] **matrix define**

L

label macro extended function, [P] **macro**
label values, [P] **macro**
language syntax, [P] **syntax**
length macro extended function, [P] **macro**
level command and value, [P] **macro**
levelsof command, [P] **levelsof**
limits,
 numerical and string, [P] **creturn**
 system, [P] **creturn**
Lin, D. Y., [P] **_robust**
linear combinations, forming, [P] **matrix score**
lines, long, in do-files and ado-files, [P] **#delimit**
list,
 char subcommand, [P] **char**
 creturn subcommand, [P] **creturn**
 ereturn subcommand, [P] **ereturn**
 macro subcommand, [P] **macro**
 matrix subcommand, [P] **matrix utility**
 program subcommand, [P] **program**
 sysdir subcommand, [P] **sysdir**
 timer subcommand, [P] **timer**
list macro extended function, [P] **macro lists**
list manipulation, [P] **macro lists**
listing
 estimation results, [P] **ereturn**, [P] **_estimates**
 macro expanded functions, [P] **macro lists**
 values of a variable, [P] **levelsof**
local
 ++ command, [P] **macro**
 - command, [P] **macro**
 command, [P] **macro**
local,
 ereturn subcommand, [P] **ereturn**
 return subcommand, [P] **return**
 sreturn subcommand, [P] **return**
Local, class prefix operator, [P] **class**
long lines in ado-files and do-files, [P] **#delimit**
looping, [P] **continue**, [P] **foreach**, [P] **forvalues**, [P]
 while
lvalue, class, [P] **class**

M

Mac, pause, [P] **sleep**
MacKinnon, J. G., [P] **_robust**
macro
 dir command, [P] **macro**
 drop command, [P] **macro**
 list command, [P] **macro**
 shift command, [P] **macro**

- macro substitution, [P] **macro**
 class, [P] **class**
- macros, [P] **macro**; [P] **creturn**, [P] **scalar**, [P] **syntax**,
also see e()
- macval() macro expansion function, [P] **macro**
- makecns command, [P] **makecns**
- manage, window subcommand, [P] **window programming**
- Mardia, K. V., [P] **matrix dissimilarity**
- mark command, [P] **mark**
- markin command, [P] **mark**
- marking observations, [P] **mark**
- markout command, [P] **mark**
- marksample command, [P] **mark**
- matcproc command, [P] **makecns**
- mathematical functions and expressions, [P] **matrix define**
- matlist command, [P] **matlist**
- matmissing() matrix function, [P] **matrix define**
- matname command, [P] **matrix mkmat**
- mat_put_rr command, [P] **matrix get**
- matrices, [P] **matrix**
 accessing internal, [P] **matrix get**
 accumulating, [P] **matrix accum**
 appending rows and columns, [P] **matrix define**
 Cholesky decomposition, [P] **matrix define**
 coefficient matrices, [P] **ereturn**
 column names, *see* matrices, row and column names
 constrained estimation, [P] **makecns**
 copying, [P] **matrix define**, [P] **matrix get**, [P] **matrix mkmat**
 correlation, [P] **matrix define**
 covariance matrix of estimators, [P] **ereturn**, [P] **matrix get**
 cross-product, [P] **matrix accum**
 determinant, [P] **matrix define**
 diagonals, [P] **matrix define**
 displaying, [P] **matlist**, [P] **matrix utility**
 dissimilarity, [P] **matrix dissimilarity**
 distances, [P] **matrix dissimilarity**
 dropping, [P] **matrix utility**
 eigenvalues, [P] **matrix eigenvalues**, [P] **matrix symeigen**
 eigenvectors, [P] **matrix symeigen**
 elements, [P] **matrix define**
 equation names, *see* matrices, row and column names
 estimation results, [P] **ereturn**, [P] **_estimates**
 functions, [P] **matrix define**
 identity, [P] **matrix define**
 input, [P] **matrix define**
 inversion, [P] **matrix define**, [P] **matrix svd**
 Kronecker product, [P] **matrix define**
 labeling rows and columns, *see* matrices, row and column names
 linear combinations with data, [P] **matrix score**
 listing, [P] **matlist**, [P] **matrix utility**
- matrices, *continued*
 namespace and conflicts, [P] **matrix**, [P] **matrix define**
 number of rows and columns, [P] **matrix define**
 operators such as addition, [P] **matrix define**
 orthonormal basis, [P] **matrix svd**
 partitioned, [P] **matrix define**
 performing constrained estimation, [P] **makecns**
 posting estimation results, [P] **ereturn**, [P] **_estimates**
 renaming, [P] **matrix utility**
 row and column names, [P] **ereturn**, [P] **matrix define**, [P] **matrix mkmat**, [P] **matrix rownames**
 rows and columns, [P] **matrix define**
 saving matrix, [P] **matrix mkmat**
 scoring, [P] **matrix score**
 similarity, [P] **matrix dissimilarity**
 store variables as matrix, [P] **matrix mkmat**
 submatrix extraction, [P] **matrix define**
 submatrix substitution, [P] **matrix define**
 subscripting, [P] **matrix define**
 sweep operator, [P] **matrix define**
 temporary names, [P] **matrix**
 trace, [P] **matrix define**
 transposing, [P] **matrix define**
 variables, make into matrix, [P] **matrix mkmat**
 zero, [P] **matrix define**
- matrix() pseudofunction, [P] **matrix define**
- matrix,
 confirm subcommand, [P] **confirm**
 ereturn subcommand, [P] **ereturn**
 return subcommand, [P] **return**
- matrix
 accum command, [P] **matrix accum**
 coleq command, [P] **matrix rownames**
 colnames command, [P] **matrix rownames**
 commands, introduction, [P] **matrix define** command, [P] **matrix define**
 dir command, [P] **matrix utility**
 dissimilarity command, [P] **matrix dissimilarity**
 drop command, [P] **matrix utility**
 eigenvalues command, [P] **matrix eigenvalues**
 glsaccum command, [P] **matrix accum**
 input command, [P] **matrix define**
 list command, [P] **matrix utility**
 opaccum command, [P] **matrix accum**
 rename command, [P] **matrix utility**
 roweq command, [P] **matrix rownames**
 rownames command, [P] **matrix rownames**
 score command, [P] **matrix score**
 svd command, [P] **matrix svd**
 symeigen command, [P] **matrix symeigen**
 vecaccum command, [P] **matrix accum**
- matsize, [P] **creturn**, [P] **macro**
- matuniform() matrix function, [P] **matrix define**
- McKenney, A., [P] **matrix eigenvalues**

member
 programs, [P] **class**
 variables, [P] **class**
 memory, reducing utilization, [P] **discard**
 memory settings, [P] **creturn**
 menu, **window** subcommand, [P] **window programming**
 menus, programming, [P] **dialog programming**, [P] **window programming**
 messages and return codes, see error messages and return codes
mkmat command, [P] **matrix mkmat**
 Moler, C. B., [P] **matrix symeigen**
 Monte Carlo simulations, [P] **postfile**
more command and parameter, [P] **macro**, [P] **more**
mreldif() matrix function, [P] **matrix define**

N

names
 conflicts, [P] **matrix**, [P] **matrix define**, [P] **scalar**
 matrix row and columns, [P] **ereturn**, [P] **matrix define**, [P] **matrix rownames**
 names, **confirm** subcommand, [P] **confirm**
 namespace and conflicts, matrices and scalars, [P] **matrix**, [P] **matrix define**
 n-class command, [P] **program**, [P] **return**
.new built-in class function, [P] **class**
 Newey–West standard errors, [P] **matrix accum**
__newline(#), **display** directive, [P] **display**
nobreak command, [P] **break**
noisily prefix, [P] **quietly**
nopreserve option, [P] **nopreserve option**
novarabbrev command, [P] **varabbrev**
nullmat() matrix function, [P] **matrix define**
 number, **confirm** subcommand, [P] **confirm**
 numeric list, [P] **numlist**, [P] **syntax**
numlist command, [P] **numlist**

O

object, [P] **class**
 object-oriented programming, [P] **class**
.objkey built-in class function, [P] **class**
.objtype built-in class function, [P] **class**
 observations, marking, [P] **mark**
off, **timer** subcommand, [P] **timer**
 OLDPLACE directory, [P] **sysdir**
 OLE Automation, [P] **automation**
on, **timer** subcommand, [P] **timer**
opaccum, **matrix** subcommand, [P] **matrix accum**
open, **file** subcommand, [P] **file**
 operators, [P] **matrix define**
 options, in a programming context, [P] **syntax**, [P] **unab**
 orthonormal basis, [P] **matrix svd**

output,
 displaying, [P] **display**, [P] **smcl**
 suppressing, [P] **quietly**
 output, **set** subcommand, [P] **quietly**
 output settings, [P] **creturn**
 overloading, class program names, [P] **class**

P

paging of screen output, controlling, [P] **more**
 Park, H. J., [P] **__robust**
 parsing, [P] **syntax**; [P] **gettoken**, [P] **numlist**, [P] **tokenize**
 partitioned matrices, [P] **matrix define**
 paths and directories, [P] **creturn**
pause command, [P] **pause**
 pausing until key is pressed, [P] **more**
permname macro extended function, [P] **macro**
personal command, [P] **sysdir**
 PERSONAL directory, [P] **sysdir**
 Piantadosi, S., [P] **__robust**
piece macro extended function, [P] **macro**
 Pitblado, J., [P] **__robust**, [P] **intro**
 plugin, loading, [P] **plugin**
 plugin option, [P] **plugin**, [P] **program**
 PLUS directory, [P] **sysdir**
 polymorphism, [P] **class**
post command, [P] **postfile**
post, **ereturn** subcommand, [P] **ereturn**, [P] **makecens**
postclose command, [P] **postfile**
postestimation command, [P] **estat programming**
postfile command, [P] **postfile**
postutil
 clear command, [P] **postfile**
 dir command, [P] **postfile**
__predict command, [P] **__predict**
predict command, [P] **ereturn**, [P] **__estimates**
 predictions, obtaining after estimation, [P] **__predict**
preserve command, [P] **preserve**
 preserving user's data, [P] **preserve**
 Press, W. H., [P] **matrix symeigen**
 program
 define command, [P] **plugin**, [P] **program**, [P] **program properties**
 dir command, [P] **program**
 drop command, [P] **program**
 list command, [P] **program**
 program properties, [P] **program properties**
 programming, [P] **syntax**
 dialog, [P] **dialog programming**
 estat, [P] **estat programming**
 Mac, [P] **window programming**
 menus, [P] **window programming**
 Windows, [P] **window programming**
 programs,
 adding comments to, [P] **comments**
 debugging, [P] **trace**

programs, *continued*
 dropping, [P] **discard**
 looping, [P] **continue**
 properties, [P] **program properties**
 properties macro extended function, [P] **macro**
 push, window subcommand, [P] **window programming**

Q

query, file subcommand, [P] **file**
 quietly prefix, [P] **quietly**
 quitting Stata, see **exit** command
 quotes to expand macros, [P] **macro**

R

r() scalars, macros, matrices, functions, [P] **discard**,
 [P] **return**
 r(functions) macro extended function, [P] **macro**
 r(macros) macro extended function, [P] **macro**
 r(matrices) macro extended function, [P] **macro**
 r(scalars) macro extended function, [P] **macro**
 rc (return codes), see error messages and return codes
 _rc built-in variable, [P] **capture**
 r-class command, [P] **program**, [P] **return**
 read, file subcommand, [P] **file**
 reading console input in programs, see **console**,
 obtaining input from
 .ref built-in class function, [P] **class**
 references, class, [P] **class**
 .ref_n built-in class function, [P] **class**
 regression (in generic sense), see estimation commands
 accessing coefficients and std. errors, [P] **matrix get**
 Reinsch, C., [P] **matrix symeigen**
 release marker, [P] **version**
 releases, compatibility of Stata programs across, [P]
version
 rename,
 char subcommand, [P] **char**
 matrix subcommand, [P] **matrix utility**
 repeating commands, [P] **continue**, [P] **foreach**, [P]
forvalues
 replay() function, [P] **ereturn**, [P] **_estimates**
 repost, **ereturn** subcommand, [P] **return**
 _request(*macname*), display directive, [P] **display**
 reset_id, **setset** subcommand, [P] **setset**
 restore command, [P] **preserve**
 restore, **_return** subcommand, [P] **_return**
 results,
 clearing, [P] **ereturn**, [P] **_estimates**, [P] **_return**
 listing, [P] **ereturn**, [P] **_estimates**, [P] **_return**
 returning, [P] **_return**, [P] **return**
 saving, [P] **ereturn**, [P] **_estimates**, [P] **postfile**, [P]
_return, [P] **return**
 _return
 dir command, [P] **_return**
 drop command, [P] **_return**

_return, *continued*
 hold command, [P] **_return**
 restore command, [P] **_return**
 return
 add command, [P] **return**
 clear command, [P] **return**
 local command, [P] **return**
 matrix command, [P] **return**
 scalar command, [P] **return**
 return codes, [P] **rmsg**, see error messages and return
 codes
 returning results, [P] **return**
 class programs, [P] **class**
 _rmcoll command, [P] **_rmcoll**
 _rmdcoll command, [P] **_rmcoll**
 rmsg, [P] **creturn**, [P] **error**
 set subcommand, [P] **rmsg**
 _robust command, [P] **_robust**
 robust, Huber/White/sandwich estimator of variance, [P]
_robust
 Rogers, W. H., [P] **_robust**
 Rousseeuw, P. J., [P] **matrix dissimilarity**
 roweq macro extended function, [P] **macro**
 roweq, matrix subcommand, [P] **matrix rownames**
 rowfullnames macro extended function, [P] **macro**
 rownames macro extended function, [P] **macro**
 rownames, matrix subcommand, [P] **matrix**
rownames
 rownumb() matrix function, [P] **matrix define**
 rows of matrix
 appending to, [P] **matrix define**
 names, [P] **ereturn**, [P] **matrix define**, [P] **matrix**
rownames
 operators, [P] **matrix define**
 rowsof() matrix function, [P] **matrix define**
 Royall, R. M., [P] **_robust**
 rvalue, class, [P] **class**

S

s() saved results, [P] **return**
 s(macros) macro extended function, [P] **macro**
 sandwich/Huber/White estimator of variance, see **robust**,
 Huber/White/sandwich estimator of variance
 save estimation results, [P] **ereturn**, [P] **_estimates**
 saved results, [P] **_return**, [P] **return**
 saving results, [P] **ereturn**, [P] **_estimates**, [P] **postfile**,
 [P] **_return**, [P] **return**
 scalar,
 confirm subcommand, [P] **confirm**
 ereturn subcommand, [P] **ereturn**
 return subcommand, [P] **return**
 scalar command and scalar() pseudofunction, [P]
scalar
 scalars, [P] **scalar**
 namespace and conflicts, [P] **matrix**, [P] **matrix**
define
 Schnell, D., [P] **_robust**

- s-class command, [P] **program**, [P] **return**
- scope, class, [P] **class**
- score, matrix subcommand, [P] **matrix score**
- scoring, [P] **matrix score**
- scrolling of output, controlling, [P] **more**
- seek, file subcommand, [P] **file**
- set
- clear command, [P] **set**
 - create command, [P] **set**
 - create_cspline command, [P] **set**
 - create_xmedians command, [P] **set**
 - dir command, [P] **set**
 - drop command, [P] **set**
 - reset_id command, [P] **set**
 - set command, [P] **set**
 - sort command, [P] **set**
 - summarize command, [P] **set**
 - use command, [P] **set**
- setread, file subcommand, [P] **set**
- setwrite, file subcommand, [P] **set**
- set,
- file subcommand, [P] **file**
 - set subcommand, [P] **set**
 - sysdir subcommand, [P] **sysdir**
- set
- adosize command, [P] **sysdir**
 - charset command, [P] **smcl**
 - more command, [P] **more**
 - output command, [P] **quietly**
 - rmsg command, [P] **rmsg**
 - trace command, [P] **trace**
 - tracedepth command, [P] **trace**
 - traceexpand command, [P] **trace**
 - tracehilite command, [P] **trace**
 - traceindent command, [P] **trace**
 - tracenum command, [P] **trace**
 - traceseq command, [P] **trace**
- settings,
- efficiency, [P] **creturn**
 - graphics, [P] **creturn**
 - memory, [P] **creturn**
 - network, [P] **creturn**
 - output, [P] **creturn**
 - program debugging, [P] **creturn**
 - trace, [P] **creturn**
- shared object, [P] **class**, [P] **plugin**
- shift, macro subcommand, [P] **macro**
- signature of data, [P] **_datasignature**, [P] **signestimationsample**
- signestimationsample command, [P] **signestimationsample**
- similarity
- matrices, [P] **matrix dissimilarity**
 - measures, [P] **matrix dissimilarity**
- simulations, Monte Carlo, [P] **postfile**
- singular value decomposition, [P] **matrix svd**
- SITE directory, [P] **sysdir**
- _skip(#)**, display directive, [P] **display**
- Slaymaker, E., [P] **file**
- sleep command, [P] **sleep**
- S_ macros, [P] **creturn**, [P] **macro**
- SMCL, [P] **smcl**
- Smith, B. T., [P] **matrix syeigen**
- Sorensen, D., [P] **matrix eigenvalues**
- sort order, [P] **byable**, [P] **macro**, [P] **sortpreserve**
- sort, **set** subcommand, [P] **set**
- sortedby macro extended function, [P] **macro**
- sortpreserve option, [P] **sortpreserve**
- source code, view, [P] **viewsource**
- sreturn
- clear command, [P] **return**
 - local command, [P] **return**
- Sribney, W. M., [P] **_robust**, [P] **intro**, [P] **matrix mkmat**
- standard errors,
- accessing, [P] **matrix get**
 - robust, see **robust**
- Stata,
- data file format, technical description, [P] **file formats .dta**
 - exiting, see **exit** command
 - pause, [P] **sleep**
- STATA directory, [P] **sysdir**
- Stata Markup and Control Language, [P] **smcl**
- Stewart, G. W., [P] **matrix svd**
- stopbox, window subcommand, [P] **window programming**
- string variables, parsing, [P] **gettoken**, [P] **tokenize**
- substr macro extended function, [P] **macro**
- subscripting matrices, [P] **matrix define**
- Sullivan, G., [P] **_robust**
- summarize, **set** subcommand, [P] **set**
- Super, class prefix operator, [P] **class**
- .superclass built-in class function, [P] **class**
- suppressing terminal output, [P] **quietly**
- svd, matrix subcommand, [P] **matrix svd**
- svmat command, [P] **matrix mkmat**
- svymarkout command, [P] **mark**
- sweep() matrix function, [P] **matrix define**
- syeigen, matrix subcommand, [P] **matrix syeigen**
- syntax command, [P] **syntax**
- syntax of Stata's language, [P] **syntax**
- sysdir
- list command, [P] **sysdir**
 - macro extended function, [P] **macro**
 - set command, [P] **sysdir**
- system
- limits, [P] **creturn**
 - parameters, [P] **creturn**
 - values, [P] **creturn**
- ## T
- tabdisp command, [P] **tabdisp**

tables
 N-way, [P] **tabdisp**
 of statistics, [P] **tabdisp**

Tan, W. Y., [P] **_robust**

tempfile command, [P] **macro**

tempfile macro extended function, [P] **macro**

tempname, class, [P] **class**

tempname command, [P] **macro**, [P] **matrix**, [P] **scalar**

tempname macro extended function, [P] **macro**

temporary
 files, [P] **macro**, [P] **preserve**, [P] **scalar**
 names, [P] **macro**, [P] **matrix**, [P] **scalar**
 variables, [P] **macro**

tempvar command, [P] **macro**

tempvar macro extended function, [P] **macro**

terminal
 obtaining input from, [P] **display**
 suppressing output, [P] **quietly**

Teukolsky, S. A., [P] **matrix syeigen**

time of day, [P] **creturn**

timer
 clear command, [P] **timer**
 list command, [P] **timer**
 off command, [P] **timer**
 on command, [P] **timer**

time-series
 analysis, [P] **matrix accum**
 unabbreviating varlists, [P] **unab**

timing code, [P] **timer**

TMPDIR Unix environment variable, [P] **macro**

tokenize command, [P] **tokenize**

trace() matrix function, [P] **matrix define**

trace of matrix, [P] **matrix define**

trace, set subcommand, [P] **creturn**, [P] **trace**

tracedepth, set subcommand, [P] **creturn**, [P] **trace**

traceexpand, set subcommand, [P] **creturn**, [P] **trace**

tracehilit, set subcommand, [P] **creturn**, [P] **trace**

traceindent, set subcommand, [P] **creturn**, [P] **trace**

tracenumber, set subcommand, [P] **creturn**, [P] **trace**

tracesep, set subcommand, [P] **creturn**, [P] **trace**

transposing matrices, [P] **matrix define**

tsnorm macro extended function, [P] **macro**

tsunab command, [P] **unab**

Tukey, J. W., [P] **if**

type macro extended function, [P] **macro**

U

unab command, [P] **unab**

unabbreviate
 command names, [P] **unabcmd**
 variable list, [P] **syntax**, [P] **unab**

unabcmd command, [P] **unabcmd**

.uname built-in class function, [P] **class**

unhold, **_estimates** subcommand, [P] **_estimates**

Unix, pause, [P] **sleep**

UPDATES directory, [P] **sysdir**

use, **setset** subcommand, [P] **setset**

user interface, [P] **dialog programming**

using data, [P] **syntax**

V

value label macro extended function, [P] **macro**

value labels, [P] **macro**

Van Kerm, P., [P] **postfile**

varabbrev command, [P] **varabbrev**

variable
 labels, [P] **macro**
 types, [P] **macro**
 class, [P] **class**

variable abbreviation, [P] **varabbrev**

variable, **confirm** subcommand, [P] **confirm**

variable label macro extended function, [P] **macro**

variables,
 characteristics of, [P] **char**, [P] **macro**
 list values of, [P] **levelsof**
 temporary, [P] **macro**
 unabbreviating, [P] **syntax**, [P] **unab**

variance
 Huber/White/sandwich estimator, see **robust**
 nonconstant, see **robust**

variance-covariance matrix of estimators, [P] **ereturn**,
 [P] **matrix get**

varlist, [P] **syntax**

vec() matrix function, [P] **matrix define**

vecaccum, **matrix** subcommand, [P] **matrix accum**

vecdiag() matrix function, [P] **matrix define**

vectors, see **matrices**

version command, [P] **version**
 class programming, [P] **class**

version control, see **version** command

Vetterling, W. T., [P] **matrix syeigen**

view source code, [P] **viewsource**

viewsource command, [P] **viewsource**

W

Weesie, J., [P] **matrix define**

Wei, L. J., [P] **_robust**

weight, [P] **syntax**

which, class, [P] **classutil**

which, **classutil** subcommand, [P] **classutil**

while command, [P] **while**

White, H., [P] **_robust**

White/Huber/sandwich estimator of variance, see **robust**

Wilkinson, J. H., [P] **matrix syeigen**

window
 fopen command, [P] **window programming**
 fsave command, [P] **window programming**
 manage command, [P] **window programming**
 menu command, [P] **window programming**
 push command, [P] **window programming**
 stopbox command, [P] **window programming**

Windows metafiles programming, [P] **automation**
Windows, pause, [P] **sleep**
Windows programming, [P] **automation**
Winter, N. J. G., [P] **levelsof**
word macro extended function, [P] **macro**
write, file subcommand, [P] **file**
writing and reading ASCII text and binary files, [P] **file**

Y

Yates, F., [P] **levelsof**

Z

zero matrix, [P] **matrix define**