
```

    name: <unnamed>
    log: /Users/connorbrennan/Library/CloudStorage/OneDrive-TheUniversityof
> fChicago/mmb/output/stepwise_regressions/piq_timing_max_nomrig.smcl
    log type: smcl
    opened on: 12 Sep 2025, 19:25:29
- capture ! rm ./output/stepwise_regressions/`depvar'`type'.pdf
= capture ! rm ./output/stepwise_regressions/piq_timing_max_nomrig.pdf
- di "*****"
> *****"
*****
> **
- di "Outcomes of bi-directional stepwise regressions with `depvar' (type = `t
> ype'))"
= di "Outcomes of bi-directional stepwise regressions with piq_timing_max (typ
> e = nomrig)"
Outcomes of bi-directional stepwise regressions with piq_timing_max (type = no
> mrig)
- di "*****"
> *****"
*****
> **
- ${reg_`depvar'`type'}
= glm piq_timing_max rule_g rule_itr estimated i.stky_wg#i.wg_ndx i.stky_wg#i
> .not_wg_ndx if piq_timing_max < 99 , family(nbinomial) link(log) vce(robust)
> nolog

```

```

> ----- begin
> glm -----
- local version : di "version " string(_caller()) ", missing:"
- if _by() {
    local BY "`by' `_byvars' `_byrc0':"
  }
- local vceopts bootopts(noheader notable) jkopts(noheader notable) mark(EXP
> osure OFFset mu INIt T CLuster)
- `BY' _vce_parserun glm, `vceopts' robustok multivce : `0'
= _vce_parserun glm, bootopts(noheader notable) jkopts(noheader notable) ma
> rk(EXPosure OFFset mu INIt T CLuster) robustok multivce : piq_timing_max rul
> e_g rule_itr estimated i.stky_wg#i.wg_ndx i.stky_wg#i.not_wg_ndx if piq_tim
> ing_max < 99 , family(nbinomial) link(log) vce(robust) nolog

```

```

> ----- begin _vce_parse
> run -----
- version 9
- local version : di "version " string(_caller()) ":"
- local bycall = _by()

```

```

- _on_colon_parse `0'
= _on_colon_parse glm, bootopts(noheader notable) jkopts(noheader notable)
> mark(EXPosure OFFset mu INIt T CLuster) robustok multivce : piq_timing_max
> rule_g rule_itr estimated i.stky_wg#i.wg_ndx i.stky_wg#i.not_wg_ndx if piq_
> timing_max < 99 , family(nbinomial) link(log) vce(robust) nolog

> _____ begin _on_colon_pa
> rse _____
- version 8.2
- sreturn local before ""
- sreturn local after ""
- gettoken before after : 0, parse(":") bind match(par) quotes
- if "`par'" != "" {
= if "" != "" {
local before `("`before')"'
}
- if ``"before"' == ":" {
= if `glm, bootopts(noheader notable) jkopts(noheader notable) mark(EXP
> osure OFFset mu INIt T CLuster) robustok multivce "' == ":" {
sreturn local after ``"after"'
exit
}
- while ``"COLON"' != ":" & ``"after"' != "" {
= while ``"' != ":" & `": piq_timing_max rule_g rule_itr estimated i.st
> ky_wg#i.wg_ndx i.stky_wg#i.not_wg_ndx if piq_timing_max < 99 , family(nbinom
> ial) link(log) vce(robust) nolog"' != "" {
- gettoken COLON after : after, parse(":") bind match(par) quotes
- if "`par'" != "" {
= if "" != "" {
local before `before' (`COLON')
local COLON
}
- else if ``"COLON"' != ":" {
= else if `":' != ":" {
local before ``"before' `COLON"'
local COLON
}
- }
- while ``"COLON"' != ":" & ``"after"' != "" {
= while `":' != ":" & `": piq_timing_max rule_g rule_itr estimated i.st
> ky_wg#i.wg_ndx i.stky_wg#i.not_wg_ndx if piq_timing_max < 99 , family(nbinom
> ial) link(log) vce(robust) nolog"' != "" {
gettoken COLON after : after, parse(":") bind match(par) quotes
if "`par'" != "" {
local before `before' (`COLON')
local COLON

```

```

    }
    else if ``COLON''' != ":" {
        local before ``before' `COLON'''
        local COLON
    }
}
- if ``COLON''' != ":" {
= if ":" != ":" {
    di as err "" found where ':' expected"
    exit 198
}
- sreturn local before ``before'''
= sreturn local before `glm, bootopts(noheader notable) jkopts(noheader
> notable) mark(EXPosure OFFset mu INIt T CLuster) robustok multivce ""
- sreturn local after ``after'''
= sreturn local after ` piq_timing_max rule_g rule_itr estimated i.stk
> y_wg#i.wg_ndx i.stky_wg#i.not_wg_ndx if piq_timing_max < 99 , family(nbinomi
> al) link(log) vce(robust) nolog"

> _____ end _on_colon_pa
> rse _____
- local ZERO ``s(before)'''
= local ZERO `glm, bootopts(noheader notable) jkopts(noheader notable) ma
> rk(EXPosure OFFset mu INIt T CLuster) robustok multivce ""
- local 0 ``s(after)'''
= local 0 ` piq_timing_max rule_g rule_itr estimated i.stky_wg#i.wg_ndx
> i.stky_wg#i.not_wg_ndx if piq_timing_max < 99 , family(nbinomial) link(log)
> vce(robust) nolog"
- quietly syntax [anything(equalok)] [if] [in] [fw aw pw iw] [, VCE(string
> asis) VCE1(string asis) LRMODEL * ]
- if ``vce''' == "" {
= if "robust" == "" {
    MYRESULT
    exit
}
- local AFTER ``0'''
= local AFTER ` piq_timing_max rule_g rule_itr estimated i.stky_wg#i.wg_
> ndx i.stky_wg#i.not_wg_ndx if piq_timing_max < 99 , family(nbinomial) link(l
> og) vce(robust) nolog"
- local 0 ``ZERO'''
= local 0 `glm, bootopts(noheader notable) jkopts(noheader notable) mark(
> EXPosure OFFset mu INIt T CLuster) robustok multivce ""
- syntax name(name=caller id="calling command name") [, WTYPES(string) NOB
> OOTstrap NOJACKknife NOOTHERvce NOTEST PANELdata STdata bootopts(string asis
> ) jkopts(string asis) robustok multivce REQUIREDopts(namelist) NOEQLIST EQop
> ts(passthru) EQARGopts(passthru) noNEEDVARLIST COMMONopts(namelist) MARKopts

```

```

> (passthru) SMARKopts(passthru) RMCOLLopts(passthru) RMDCOLLopts(passthru) NU
> MDEPvars(passthru) NEEDEQUAL ALLDEPSMISSing PAREntheses UNPARFIRSTeq OR EQUA
> L UNEQUALFIRSTeq IGNORENOCONS ]
  - if ``requiredopts'' != "" {
= if `'' != "" {
  tempname reqopts
  .`reqopts' = ._optlist.new
  foreach req of local requiredopts {
    .`reqopts'.addopt `req', passthru
  }
}
- if ``wtypes'' == "" {
= if "" == "" {
- local wtypes fw aw pw iw
- }
- if ``paneldata'' != "" {
= if "" != "" {
  local panelopt "CLuster(varname) I(varname)"
}
- if ``stdata'' != "" {
= if "" != "" {
  local stopt "CLuster(varname) SHared(varname)"
}
- local typelist svy jackknife bootstrap
- if ``stdata'' == "" & replay() & ! _by() {
= if "" == "" & replay() & ! _by() {
  local ecmd `e(cmd)'
  local ecmdname `e(cmdname)'
  if ``ecmd'' == "" {
    error 301
  }
  else if ``ecmd'' != ``caller'' & ``ecmdname'' == ``caller'' & `:list
> ecmd in typelist' {
  `ecmd' `0'
  MYRESULT exit
}
MYRESULT
exit
}
- gettoken svy typelist : typelist
- if ``reqopts'' != "" {
= if "" != "" {
  local REQOPTLIST ``.`reqopts'.dumpoptions''
  local REQOPTNAMES ``.`reqopts'.dumpnames''
}
- local 0 ``AFTER''

```

```

= local 0 `` piq_timing_max rule_g rule_itr estimated i.stky_wg#i.wg_ndx
> i.stky_wg#i.not_wg_ndx if piq_timing_max < 99 , family(nbinomial) link(log)
> vce(robust) nolog''
- quietly syntax [anything(equalok)] [if/] [in] [`wtypes'] [, VCE(string a
> sis) VCE1(string asis) Robust NODOTS `panelopt' `stopt' `REQOPTLIST' * ]
= quietly syntax [anything(equalok)] [if/] [in] [fw aw pw iw] [, VCE(strin
> g asis) VCE1(string asis) Robust NODOTS * ]
- if `:list vce == vce1' {
= if 0 {
local vce1
}
- if ``vce1''' != "" & ``multivce'' == "" {
= if `''' != "" & "multivce" == "" {
di as err "option vce() specified multiple times"
exit 198
}
- if ``robust'' != "" & ``robustok'' == "" {
= if "" != "" & "robustok" == "" {
di as err "options vce() and robust may not be combined"
exit 198
}
- if ``if''' != "" {
= if ``piq_timing_max < 99 '' != "" {
- local if ``if (`if)''
= local if ``if (piq_timing_max < 99 )''
- }
- if ``robust'' != "" {
= if "" != "" {
local options ``robust' `options'''
}
- if ``weight'' != "" {
= if "" != "" {
local wgt [`weight'`exp']
}
- if ``options''' != "" {
= if ``family(nbinomial) link(log) nolog'' != "" {
- local opts ``:list retok options'''
= local opts ``family(nbinomial) link(log) nolog''
- }
- gettoken uvcetype vceopts : vce, parse(" ,")
- capture unabVCetype, `uvcetype'
= capture unabVCetype, robust

```

```

> _____ begin _vce_parserun.unabVCet
> ype _____
- syntax [, B00Tstrap BStrap JACKknife JACKNife JKnife Robust * ]

```

```

- if "`bootstrap'" != "" {
= if "" != "" {
    local bootstrap bootstrap
  }
- if "`jkknife'" != "" | "`jackknife'" != "" {
= if "" != "" | "" != "" {
    local jackknife jackknife
  }
- local vcetype ``jackknife' `bootstrap' `robust' `options''
= local vcetype ``robust''
- sreturn local vcetype ``:list retok vcetype''
= sreturn local vcetype ``robust''

```

```

> _____ end _vce_parserun.unabVCET
> ype _____
- if c(rc) {
  di as err "invalid vce() option"
  exit c(rc)
}
- local vcetype `s(vcetype)'
= local vcetype robust
- if "`lrmodel'" != "" {
= if "" != "" {
  _check_lrmodel `caller', vcetype(`vcetype')
}
- if ``vce1'" != "" & "`multivce'" != "" {
= if `"' != "" & "multivce" != "" {
  gettoken uvceltype vcelopts : vce1, parse(" ,")
  capture unabVCETtype, `uvceltype'
  if c(rc) {
    di as err "invalid vce() option"
    exit c(rc)
  }
  local vceltype `s(vcetype)'
  if `:list vceltype in typelist' | `:list vcetype in typelist' {
    di as err "options vce(`vce') and vce(`vce1') cannot be combined"
    exit 198
  }
  MYRESULT
  exit
}
- if _caller() >= 17 {
- if "`vcetype'" == "cluster" {
= if "robust" == "cluster" {
  gettoken vceopts vcelopts: vceopts, parse(",")
  if `:list sizeof vceopts' > 1 {

```

```

    local typelist "`typelist' cluster_multiway"
    local vcetype cluster_multiway
    if `:list sizeof vcelopts' > 0 {
        gettoken comma vcelopts: vcelopts, parse(",")
        local vcelopts: list retokenize vcelopts
        di as err "{p}VCE option " "{bf:`vcelopts'} not allowed{p_end}"
        exit 198
    }
    if !inlist("`caller'", "areg", "regress", "xtreg") {
        di as err "{p}multiway cluster VCE " "not allowed{p_end}"
        exit 198
    }
    MYRESULT
    exit
}
- }
- if ! `:list vcetype in typelist' {
= if ! 0 {
- if "`vcetype'" != "robust" & "`noothervce'" == "noothervce" {
= if "robust" != "robust" & "" == "noothervce" {
    di as err "option vce(`uvcetype') not allowed"
    exit 198
}
- MYRESULT
}

> _____ begin _vce_parserun.MYRES
> ULT _____
    - args exit
    - sreturn local exit ``exit'''
    = sreturn local exit `'''
}

> _____ end _vce_parserun.MYRES
> ULT _____
    - exit
}

> _____ end _vce_parse
> run _____
- if "`s(exit)'" != "" {
= if "" != "" {
    version 10: ereturn local cmdline `"glm `0'"
    if e(vf) != 1 {
        tempname V
        matrix `V' = e(vf)*e(V)
        version 9: ereturn repost V = `V'
    }
}

```

```

    version 9: ereturn local clustvar ``e(cluster)'''
    version 9: ereturn local cluster
    quietly syntax [anything] [fw aw iw pw] [if] [in] [, noHEADer noTABLE Leve
> l(passthru) eform * ]
    if ! `:length local level' {
    if ``s(level)''' != "" {
    local level `"level(`s(level)')"'
    }
    }
    _get_diopts diopts options, `options'
    version 7: Display, `header' `table' `level' `eform' `diopts'
    exit
    }
- version 7, missing
- if replay() {
    if _by() {
    error 190
    }
    if ``e(cmd)''' != "glm" {
    error 301
    }
    if ``e(predict)''' == "glm_p" {
    glm_6 `0'
    exit
    }
    Display `0'
    error `e(rc)'
    exit
    }
- if _caller() < 7 {
    mac drop SGLM_*
    capture noi `BY' glm_6 `0'
    mac drop SGLM_*
    exit _rc
    }
- mac drop SGLM_running SGLM_nonstan
- capture noisily `version' `BY' glm_7 `0'
= capture noisily version 18.5, missing: glm_7 piq_timing_max rule_g rule_i
> tr estimated i.stky_wg#i.wg_ndx i.stky_wg#i.not_wg_ndx if piq_timing_max <
> 99 , family(nbinomial) link(log) vce(robust) nolog

-----
> ----- begin glm.gl
> m_7 -----
    - version 7, missing
    - local oldIC oldic
    - if _caller() < 9 {

```



```

    local iteropt ITERate(integer 50)
  }
  - else local iteropt ITERate(integer `c(maxiter)`)
  = else local iteropt ITERate(integer 300)
  - local dltol -1
  - syntax varlist(numeric fv ts) [fw aw pw iw] [if] [in] [, EForm FROM(stri
> ng) LElvel(cilevel) OFFset(varname numeric) LNOFFset(varname numeric) noCONst
> ant Robust CLuster(varname) Family(string) Link(string) ASIS SEARCH IRLS ML
> LTOLerance(real `dltol`) SCore(string) NOLOg LOg noTABLE noDISPLAY FISHER(in
> teger -1) noDOTS `iteropt' TRAcE SCALe(string) estscale MU(varname) INIt(var
> name) T(string) noHEADer DISP(real 1) VFactor(real 1) EXPosure(varname numer
> ic) moptobj(passthru) * ]
    = syntax varlist(numeric fv ts) [fw aw pw iw] [if] [in] [, EForm FROM(stri
> ng) LElvel(cilevel) OFFset(varname numeric) LNOFFset(varname numeric) noCONst
> ant Robust CLuster(varname) Family(string) Link(string) ASIS SEARCH IRLS ML
> LTOLerance(real -1) SCore(string) NOLOg LOg noTABLE noDISPLAY FISHER(integer
> -1) noDOTS ITERate(integer 300) TRAcE SCALe(string) estscale MU(varname) IN
> It(varname) T(string) noHEADer DISP(real 1) VFactor(real 1) EXPosure(varname
> numeric) moptobj(passthru) * ]
    - local FROM_ORIG : copy local from
    - local fvops = "`s(fvops)'" == "true" | _caller() >= 11
    = local fvops = "true" == "true" | _caller() >= 11
    - if `fvops' {
    = if 1 {
    - local VV : di "version " string(max(11,_caller())) ", missing:"
    - local MM e2
    - local negh negh
    - }
    - else {
      local VV "version 8.1:"
      local MM d2
    }
    - GetVCE, `irls' cluster(`cluster') `robust' `options'
    = GetVCE, cluster() vce(robust)
  }
}

> ----- begin glm.Get
> VCE -----
  - version 9
  - syntax [fw aw iw pw] [, IRLS BSTRAP BREP(integer -1) JKNIFE JKNIFE1 NW
> EST(string) OIM OPG BHHH UNBiased VCE(string) VCE1(string) VCE2(string) CLus
> ter(varname) Robust * ]
    - if "`weight'" != "" {
    = if "" != "" {
      local wt [`weight'`exp']
    }
    - local len : length local vce

```

```

- if "`vce'" == bsubstr("unbiased", 1, max(3,`len')) {
= if "robust" == bsubstr("unbiased", 1, max(3,6)) {
    local vce : copy local vce1
    local vce1 : copy local vce2
    local vce2
    local unbiased "unbiased"
}
- local len : length local vce1
- if "`vce1'" == bsubstr("unbiased", 1, max(3,`len')) {
= if "" == bsubstr("unbiased", 1, max(3,0)) {
    local vce1 : copy local vce2
    local vce2
    local unbiased "unbiased"
}
- local len : length local vce2
- if "`vce2'" == bsubstr("unbiased", 1, max(3,`len')) {
= if "" == bsubstr("unbiased", 1, max(3,0)) {
    local vce2
    local unbiased "unbiased"
}
- if "`vce2'" != "" {
= if "" != "" {
    di as err "too many vce() options specified"
    exit 198
}
- if ("`bhhh'" != "") local opg opg
= if (" " != " ") local opg opg
- local oldvce `bstrap' `jkknife' `jkknife1' `opg' `unbiased'
= local oldvce
- if ("`nwest'" != "") local oldvce "`oldvce' nwest(`newst')""
= if (" " != " ") local oldvce ` " nwest()'""
- opts_exclusive "`oldvce'"
= opts_exclusive ""

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while "`opts'" != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }

```

```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive
- if "`irls'" == "" {
= if "" == "" {
- local allow eim
- }
- else {
local allow eim oim
}
- local optlist EIM OIM OPG Robust jackknife1 jknife1 UNBiased NATIVE
- local argoptlist CLuster HAC
- _vce_parse, opt(`optlist') argopt(`argoptlist') pw(`allow') old : `wt'
> , vce(`vce') cluster(`cluster') `robust'
= _vce_parse, opt(EIM OIM OPG Robust jackknife1 jknife1 UNBiased NATIVE)
> argopt(CLuster HAC) pw(eim) old : , vce(robust) cluster()

> ----- begin _vce_pa
> rse
- version 10
- _on_colon_parse `0'
= _on_colon_parse , opt(EIM OIM OPG Robust jackknife1 jknife1 UNBiased
> NATIVE) argopt(CLuster HAC) pw(eim) old : , vce(robust) cluster()

> ----- begin _on_colon_pa
> rse
- version 8.2
- sreturn local before ""
- sreturn local after ""
- gettoken before after : 0, parse(":") bind match(par) quotes
- if "`par'" != "" {
= if "" != "" {
local before `("before")'
}
- if ``before' == ":" {
= if `', opt(EIM OIM OPG Robust jackknife1 jknife1 UNBiased NATIVE)
> argopt(CLuster HAC) pw(eim) old '' == ":" {
sreturn local after ``after'
exit
}
- while ``COLON' != ":" & ``after' != "" {
= while ``' != ":" & `:', vce(robust) cluster() '' != "" {
- gettoken COLON after : after, parse(":") bind match(par) quotes

```

```

- if "`par'" != "" {
= if "" != "" {
  local before `before' (`COLON')
  local COLON
}
- else if ``"COLON"' != ":" {
= else if `":' != ":" {
  local before ``"before' `COLON'
  local COLON
}
- }
- while ``"COLON"' != ":" & ``"after"' != "" {
= while `":' != ":" & `", vce(robust) cluster() "" != "" {
  gettoken COLON after : after, parse(":") bind match(par) quotes
  if "`par'" != "" {
    local before `before' (`COLON')
    local COLON
  }
  else if ``"COLON"' != ":" {
    local before ``"before' `COLON'
    local COLON
  }
}
- if ``"COLON"' != ":" {
= if `":' != ":" {
  di as err "" found where ':' expected"
  exit 198
}
- sreturn local before ``"before'
= sreturn local before `", opt(EIM OIM OPG Robust jackknife1 jknife1
> UNBiased NATIVE) argopt(CLuster HAC) pw(eim) old ""
- sreturn local after ``"after'
= sreturn local after `", vce(robust) cluster() ""



---


> _____ end _on_colon_pa
> rse _____
- local 0 ``"s(before)'
= local 0 `", opt(EIM OIM OPG Robust jackknife1 jknife1 UNBiased NATIV
> E) argopt(CLuster HAC) pw(eim) old ""
- local user ``"s(after)'
= local user `", vce(robust) cluster() ""
- syntax [varname(default=none)], [ OPTlist(namelist) ARGOPTlist(namel
> ist) PWallowed(namelist) OLD_is_ok NOARGOPT_is_ok ]
- local touse `varlist'
= local touse
- tempname o a

```

```

- .`o' = ._optlist.new
= .__000001 = ._optlist.new
  -class {
  -instance:
    -      array options   = {}
    -      array names     = {}
  -}
- local optlist : list uniq optlist
- foreach name of local optlist {
- .`o'.addopt `name'
= .__000001.addopt EIM

```

```

> _____ begin _optlist.add
> opt _____
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
  = local mname = lower("EIM")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
  }
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "EIM"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "eim"

```

```

> _____ end _optlist.add
> opt _____
  - }
  - .`o'.addopt `name'
  = .__000001.addopt OIM

```

```

> _____ begin _optlist.add
> opt _____
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
  = local mname = lower("OIM")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
  }
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "OIM"
  - .names.Arrpush "`mname'"

```

```

        = .names.Arrpush "oim"
    > _____ end _optlist.add
> opt _____
    - }
    - .`o'.addopt `name'
    = .__000001.addopt OPG
    > _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("OPG")
    - if "`passthru'" != "" {
    = if "" != "" {
        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "OPG"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "opg"
    > _____ end _optlist.add
> opt _____
    - }
    - .`o'.addopt `name'
    = .__000001.addopt Robust
    > _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("Robust")
    - if "`passthru'" != "" {
    = if "" != "" {
        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "Robust"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "robust"
    > _____ end _optlist.add
> opt _____

```

```

- }
- .`o'.addopt `name'
= .__000001.addopt jackknife1

```

```

> ----- begin _optlist.add
> opt
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("jackknife1")
    - if "`passthru'" != "" {
    = if "" != "" {
      local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "jackknife1"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "jackknife1"

```

```

> ----- end _optlist.add
> opt
    - }
    - .`o'.addopt `name'
    = .__000001.addopt jknife1

```

```

> ----- begin _optlist.add
> opt
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("jknife1")
    - if "`passthru'" != "" {
    = if "" != "" {
      local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "jknife1"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "jknife1"

```

```

> ----- end _optlist.add
> opt
    - }
    - .`o'.addopt `name'
    = .__000001.addopt UNBiased

```

```

> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("UNBiased")
    - if "`passthru'" != "" {
    = if "" != "" {
        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "UNBiased"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "unbiased"
    _____

> _____ end _optlist.add
> opt _____
    - }
    - .`o'.addopt `name'
    = .__000001.addopt NATIVE
    _____

> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("NATIVE")
    - if "`passthru'" != "" {
    = if "" != "" {
        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "NATIVE"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "native"
    _____

> _____ end _optlist.add
> opt _____
    - }
    - .`a' = ._optlist.new
    = .__000002 = ._optlist.new
    - local argoptlist : list uniq argoptlist
    - foreach name of local argoptlist {
    - .`a'.addopt `name'
    = .__000002.addopt CLuster
    _____

```



```

> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("CLuster")
    - if "`passthru'" != "" {
    = if "" != "" {
        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "CLuster"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "cluster"
    _____

> _____ end _optlist.add
> opt _____
    - }
    - .`a'.addopt `name'
    = .__000002.addopt HAC
    _____

> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("HAC")
    - if "`passthru'" != "" {
    = if "" != "" {
        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "HAC"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "hac"
    _____

> _____ end _optlist.add
> opt _____
    - }
    - local OPTNAMES ```.`o'.dumpnames'''
    _____

> _____ begin _optlist.dumpna
> mes _____
    - version 9
    - forval i = 1/`.names.arnels' {
    = forval i = 1/8 {

```

```

- local namelist `namelist' `.names['i']'
= local namelist eim
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust jackknife1
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust jackknife1 jknife1
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust jackknife1 jknife1 unbiased
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust jackknife1 jknife1 unbiased nati
> ve
- }
- local namelist : list uniq namelist
- sreturn local namelist ``namelist'''
= sreturn local namelist ``eim oim opg robust jackknife1 jknife1 unb
> iased native'''
- class exit ``namelist'''
= class exit ``eim oim opg robust jackknife1 jknife1 unbiased native
> '''
_____
> _____ end _optlist.dumpna
> mes _____
= local OPTNAMES ``eim oim opg robust jackknife1 jknife1 unbiased nati
> ve'''
- local ARGOPTNAMES ```.a'.dumpnames'''
_____
> _____ begin _optlist.dumpna
> mes _____
- version 9
- forval i = 1/`.names.arnels' {
= forval i = 1/2 {
- local namelist `namelist' `.names['i']'
= local namelist cluster

```

```

- }
- local namelist `namelist' `.names['i']'
= local namelist cluster hac
- }
- local namelist : list uniq namelist
- sreturn local namelist ``namelist'''
= sreturn local namelist "cluster hac"
- class exit ``namelist'''
= class exit "cluster hac"

```

```

> _____ end _optlist.dumpna
> mes _____
= local ARGOPTNAMES "cluster hac"
- local AND : list OPTNAMES & ARGOPTNAMES
- if `:list sizeof AND' {
= if 0 {
  di as err "vctype `:word 1 of `AND'' specified twice"
  exit 198
}
- local pwallowed : list uniq pwallowed
- local pwlist robust cluster
- foreach n of local pwallowed {
- local lc = lower("`n'")
= local lc = lower("eim")
- local pwlist `pwlist' `lc'
= local pwlist robust cluster eim
- }
- if "`old_is_ok'" != "" {
= if "old_is_ok" != "" {
- local ROBUST robust
- if `:list ROBUST in OPTNAMES' {
= if 1 {
- local robust Robust
- }
- local CLUSTER cluster
- if `:list CLUSTER in ARGOPTNAMES' {
= if 1 {
- local cluster CLuster(varname)
- }
- }
- local 0 ``user'''
= local 0 `` , vce(robust) cluster() ''
- syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster' ]
= syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(varname) ]
- if ``vce''' != "" {
= if "robust" != "" {

```

```

- gettoken name args : vce, parse(" ,")
- local args : list retok args
- capture ParseVCE `o' `a' , `name'
= capture ParseVCE __000001 __000002 , robust

```

```

> _____ begin _vce_parse.Parse
> VCE _____
- gettoken 0 0 : 0, parse(" ,")
- gettoken A 0 : 0, parse(" ,")
- local OPTSPECS ```. `0'.dumpoptions' `.`A'.dumpoptions'''

```

```

> _____ begin _optlist.dumpopti
> ons _____
- version 9
- forval i = 1/`.options.arnels' {
= forval i = 1/8 {
- local optlist `optlist' `.`options['i']'
= local optlist EIM
- }
- local optlist `optlist' `.`options['i']'
= local optlist EIM OIM
- }
- local optlist `optlist' `.`options['i']'
= local optlist EIM OIM OPG
- }
- local optlist `optlist' `.`options['i']'
= local optlist EIM OIM OPG Robust
- }
- local optlist `optlist' `.`options['i']'
= local optlist EIM OIM OPG Robust jackknife1
- }
- local optlist `optlist' `.`options['i']'
= local optlist EIM OIM OPG Robust jackknife1 jknife1
- }
- local optlist `optlist' `.`options['i']'
= local optlist EIM OIM OPG Robust jackknife1 jknife1 UNBiased
- }
- local optlist `optlist' `.`options['i']'
= local optlist EIM OIM OPG Robust jackknife1 jknife1 UNBiased NAT
> IVE
- }
- local optlist : list uniq optlist
- sreturn local optlist ```.optlist'''
= sreturn local optlist ``"EIM OIM OPG Robust jackknife1 jknife1 UN
> Biased NATIVE"''
- class exit ```.optlist'''

```

```

= class exit `"EIM OIM OPG Robust jackknife1 jknife1 UNBiased NATI
> VE"'
_____
> _____ end _optlist.dumpopti
> ons _____
_____
> _____ begin _optlist.dumpopti
> ons _____
- version 9
- forval i = 1/`.options.arnels' {
= forval i = 1/2 {
- local optlist `optlist' `.options['i']'
= local optlist CLuster
- }
- local optlist `optlist' `.options['i']'
= local optlist CLuster HAC
- }
- local optlist : list uniq optlist
- sreturn local optlist ```optlist'''
= sreturn local optlist `"CLuster HAC"'
- class exit ```optlist'''
= class exit `"CLuster HAC"'
_____
> _____ end _optlist.dumpopti
> ons _____
= local OPTSPECS `"EIM OIM OPG Robust jackknife1 jknife1 UNBiased NA
> TIVE CLuster HAC"'
- local OPTNAMES ```.`0'.dumpnames' `.`A'.dumpnames'''
_____
> _____ begin _optlist.dumpna
> mes _____
- version 9
- forval i = 1/`.names.arnels' {
= forval i = 1/8 {
- local namelist `namelist' `.names['i']'
= local namelist eim
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust
- }

```

```

- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust jackknife1
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust jackknife1 jknife1
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust jackknife1 jknife1 unbiased
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust jackknife1 jknife1 unbiased na
> tive
- }
- local namelist : list uniq namelist
- sreturn local namelist ``namelist'''
= sreturn local namelist ``eim oim opg robust jackknife1 jknife1 u
> nbiased native'''
- class exit ``namelist'''
= class exit ``eim oim opg robust jackknife1 jknife1 unbiased nati
> ve'''
_____
> _____ end _optlist.dumpna
> mes _____
_____
> _____ begin _optlist.dumpna
> mes _____
- version 9
- forval i = 1/`.names.arnels' {
= forval i = 1/2 {
- local namelist `namelist' `.names['i']'
= local namelist cluster
- }
- local namelist `namelist' `.names['i']'
= local namelist cluster hac
- }
- local namelist : list uniq namelist
- sreturn local namelist ``namelist'''
= sreturn local namelist ``cluster hac'''
- class exit ``namelist'''
= class exit ``cluster hac'''
_____
> _____ end _optlist.dumpna
> mes _____
= local OPTNAMES ``eim oim opg robust jackknife1 jknife1 unbiased na
> tive cluster hac'''
- syntax [, `OPTSPECS']

```

```

= syntax [, EIM OIM OPG Robust jackknife1 jknife1 UNBiased NATIVE CL
> uster HAC]
- foreach OPT of local OPTNAMES {
- if ````OPT'''' != "" {
= if ```` != "" {
    return local vce `OPT'
    continue, break
  }
- }
- if ````OPT'''' != "" {
= if ```` != "" {
    return local vce `OPT'
    continue, break
  }
- }
- if ````OPT'''' != "" {
= if ``robust'' != "" {
    return local vce `OPT'
    continue, break
  }
- }
- if ````OPT'''' != "" {
= if ``robust'' != "" {
    return local vce robust
    continue, break
  }
}



---


> _____ end _vce_parse.Parse
> VCE _____
- if c(rc) {
  di as err "vcetype {bf:`name'} not allowed"
  exit 198
}
- local name `r(vce)'
= local name robust
- if "`weight'" == "pweight" & !`:list name in pwlist' {
= if "" == "pweight" & !1 {
  di as err "pweights are not allowed with vce(`name')"
  exit 198
}
- return add
- if ``robust'' != "" & !inlist("`name'", "", "robust", "eim", "oim", "cl
> uster") {
= if ```` != "" & !inlist("robust", "", "robust", "eim", "oim", "cluster")

```

```

> {
    opts_exclusive "`robust' vce(`name')"
}
- if "`name'" == "cluster" {
= if "robust" == "cluster" {
    if ``args'" == "" {
        di as err "invalid vce(cluster) option"
        exit 198
    }
    confirm var `args'
    unab args : `args'
    local markout `args'
    if "`cluster'" != "" {
        if !`:list args == cluster' {
            di as err "options cluster() and vce(cluster) are in conflict"
            exit 100
        }
    }
}
- else if "`cluster'" != "" & !inlist("`name'", "eim", "oim") {
= else if "" != "" & !inlist("robust", "eim", "oim") {
    opts_exclusive "cluster() vce(`name')"
}
- if ``args'" != "" {
= if `""' != "" {
    if !`:list name in ARGOPTNAMES' {
        di as err "invalid vce() option"
        exit 198
    }
    if "`name'" == "hc2" {
        confirm var `args'
        unab args : `args'
        local markout `args'
    }
    return local vceargs ```:list retok args'''
}
- else if `:list name in ARGOPTNAMES' {
= else if 0 {
    if "`noargopt_is_ok'" == "" {
        di as err "invalid vce() option"
        exit 198
    }
}
- }
- else {
    if "`weight'" == "pweight" | "`robust'" != "" {

```



```

    local vce robust
  }
  if "`cluster'" != "" {
    local vce cluster
    local args `cluster'
    local markout `cluster'
  }
  return local vce ``vce'''
  return local vceargs ``args'''
}
- if "`return(vce)'" != "" {
= if "robust" != "" {
- if ``return(vceargs)'' != "" {
= if `''' != "" {
  local ss " "
}
- return local vceopt `vce(`return(vce)''ss``return(vceargs)')'
= return local vceopt `vce(robust)'
- }
- if "`return(vce)'" == "cluster" {
= if "robust" == "cluster" {
  return local cluster `return(vceargs)'
}
- if inlist("`return(vce)'", "robust", "cluster") {
= if inlist("robust", "robust", "cluster") {
- return local robust robust
- }
- if "`touse'" != "" {
= if "" != "" {
  if "`markout'" != "" {
    markout `touse' `markout', strok
  }
}
}
}


---


> _____ end _vce_pa
> rse _____
- if "`r(vce)'" != "" {
= if "robust" != "" {
- if "`r(cluster)'" != "" {
= if "" != "" {
  local cluster `r(cluster)'
  local vce `r(vce)'
}
- else local vce `r(vce)' `r(vceargs)'
= else local vce robust
- }

```

```

- _vce_parse, opt(`optlist') argopt(`argoptlist') old :, vce(`vce1')
= _vce_parse, opt(EIM OIM OPG Robust jackknife1 jknife1 UNBiased NATIVE)
> argopt(CLuster HAC) old :, vce()

-----
> ----- begin _vce_pa
> rse -----
- version 10
- _on_colon_parse `0'
= _on_colon_parse , opt(EIM OIM OPG Robust jackknife1 jknife1 UNBiased
> NATIVE) argopt(CLuster HAC) old :, vce()

-----
> ----- begin _on_colon_pa
> rse -----
- version 8.2
- sreturn local before ""
- sreturn local after ""
- gettoken before after : 0, parse(":") bind match(par) quotes
- if "`par'" != "" {
= if "" != "" {
    local before "`('before)'"
  }
- if ``"before"" == ":" {
= if `", opt(EIM OIM OPG Robust jackknife1 jknife1 UNBiased NATIVE)
> argopt(CLuster HAC) old "" == ":" {
    sreturn local after ``"after""
    exit
  }
- while ``"COLON"" != ":" & ``"after"" != "" {
= while ``"" != ":" & `", vce()"" != "" {
- gettoken COLON after : after, parse(":") bind match(par) quotes
- if "`par'" != "" {
= if "" != "" {
    local before `before' (`COLON')
    local COLON
  }
- else if ``"COLON"" != ":" {
= else if `":' != ":" {
    local before ``"before' `COLON""
    local COLON
  }
- }
- while ``"COLON"" != ":" & ``"after"" != "" {
= while `":' != ":" & `", vce()"" != "" {
    gettoken COLON after : after, parse(":") bind match(par) quotes
    if "`par'" != "" {
      local before `before' (`COLON')

```

```

        local COLON
    }
    else if ``COLON'' != ":" {
        local before ``before' `COLON''
        local COLON
    }
}
- if ``COLON'' != ":" {
= if ":" != ":" {
    di as err "" found where ':' expected"
    exit 198
}
- sreturn local before ``before''
= sreturn local before `", opt(EIM OIM OPG Robust jackknife1 jknife1
> UNBiased NATIVE) argopt(CLuster HAC) old ""
- sreturn local after ``after''
= sreturn local after `", vce()''

> _____ end _on_colon_pa
> rse _____
    - local 0 ``s(before)''
    = local 0 `", opt(EIM OIM OPG Robust jackknife1 jknife1 UNBiased NATIV
> E) argopt(CLuster HAC) old ""
    - local user ``s(after)''
    = local user `", vce()''
    - syntax [varname(default=none)], [ OPTlist(namelist) ARGOPTlist(namel
> ist) PWallowed(namelist) OLD_is_ok NOARGOPT_is_ok ]
    - local touse `varlist'
    = local touse
    - tempname o a
    - `o' = ._optlist.new
    = .__000001 = ._optlist.new
    -class {
    -instance:
    -      array options    = {}
    -      array names      = {}
    -}
    - local optlist : list uniq optlist
    - foreach name of local optlist {
    - `o'.addopt `name'
    = .__000001.addopt EIM

> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]

```

```

- local mname = lower("`optspec'")
= local mname = lower("EIM")
- if "`passthru'" != "" {
= if "" != "" {
    local optspec `optspec'(passthru)
  }
- .options.Arrpush "`optspec'"
= .options.Arrpush "EIM"
- .names.Arrpush "`mname'"
= .names.Arrpush "eim"

```

```

> ----- end _optlist.add
> opt -----
- }
- .`o'.addopt `name'
= .__000001.addopt OIM

```

```

> ----- begin _optlist.add
> opt -----
- version 9
- syntax name(name=optspec) [, PASSthru]
- local mname = lower("`optspec'")
= local mname = lower("OIM")
- if "`passthru'" != "" {
= if "" != "" {
    local optspec `optspec'(passthru)
  }
- .options.Arrpush "`optspec'"
= .options.Arrpush "OIM"
- .names.Arrpush "`mname'"
= .names.Arrpush "oim"

```

```

> ----- end _optlist.add
> opt -----
- }
- .`o'.addopt `name'
= .__000001.addopt OPG

```

```

> ----- begin _optlist.add
> opt -----
- version 9
- syntax name(name=optspec) [, PASSthru]
- local mname = lower("`optspec'")
= local mname = lower("OPG")
- if "`passthru'" != "" {
= if "" != "" {

```

```

        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "OPG"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "opg"


---


> _____ end _optlist.add
> opt _____
    - }
    - .`o'.addopt `name'
    = .__000001.addopt Robust


---


> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("Robust")
    - if "`passthru'" != "" {
    = if "" != "" {
        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "Robust"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "robust"


---


> _____ end _optlist.add
> opt _____
    - }
    - .`o'.addopt `name'
    = .__000001.addopt jackknife1


---


> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("jackknife1")
    - if "`passthru'" != "" {
    = if "" != "" {
        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "jackknife1"

```

```

- .names.Arrpush ``mname''
= .names.Arrpush "jackknife1"


---


> 

---

 end _optlist.add
> opt 

---


- }
- .`o'.addopt `name'
= .__000001.addopt jknife1


---


> 

---

 begin _optlist.add
> opt 

---


- version 9
- syntax name(name=optspec) [, PASSthru]
- local mname = lower("`optspec'")
= local mname = lower("jknife1")
- if "`passthru'" != "" {
= if "" != "" {
  local optspec `optspec'(passthru)
}
- .options.Arrpush "`optspec'"
= .options.Arrpush "jknife1"
- .names.Arrpush ``mname''
= .names.Arrpush "jknife1"


---


> 

---

 end _optlist.add
> opt 

---


- }
- .`o'.addopt `name'
= .__000001.addopt UNBiased


---


> 

---

 begin _optlist.add
> opt 

---


- version 9
- syntax name(name=optspec) [, PASSthru]
- local mname = lower("`optspec'")
= local mname = lower("UNBiased")
- if "`passthru'" != "" {
= if "" != "" {
  local optspec `optspec'(passthru)
}
- .options.Arrpush "`optspec'"
= .options.Arrpush "UNBiased"
- .names.Arrpush ``mname''
= .names.Arrpush "unbiased"


---


> 

---

 end _optlist.add

```

```

> opt
- }
- .`o'.addopt `name'
= .__000001.addopt NATIVE

> _____ begin _optlist.add
> opt
- version 9
- syntax name(name=optspec) [, PASSthru]
- local mname = lower("`optspec'")
= local mname = lower("NATIVE")
- if "`passthru'" != "" {
= if "" != "" {
    local optspec `optspec'(passthru)
  }
- .options.Arrpush "`optspec'"
= .options.Arrpush "NATIVE"
- .names.Arrpush "`mname'"
= .names.Arrpush "native"

> _____ end _optlist.add
> opt
- }
- .`a' = ._optlist.new
= .__000002 = ._optlist.new
- local argoptlist : list uniq argoptlist
- foreach name of local argoptlist {
- .`a'.addopt `name'
= .__000002.addopt CLuster

> _____ begin _optlist.add
> opt
- version 9
- syntax name(name=optspec) [, PASSthru]
- local mname = lower("`optspec'")
= local mname = lower("CLuster")
- if "`passthru'" != "" {
= if "" != "" {
    local optspec `optspec'(passthru)
  }
- .options.Arrpush "`optspec'"
= .options.Arrpush "CLuster"
- .names.Arrpush "`mname'"
= .names.Arrpush "cluster"

> _____ end _optlist.add

```

```

> opt -----
- }
- .`a'.addopt `name'
= .__000002.addopt HAC
-----

> ----- begin _optlist.add
> opt -----
- version 9
- syntax name(name=optspec) [, PASSthru]
- local mname = lower("`optspec'")
= local mname = lower("HAC")
- if "`passthru'" != "" {
= if "" != "" {
    local optspec `optspec'(passthru)
  }
- .options.Arrpush "`optspec'"
= .options.Arrpush "HAC"
- .names.Arrpush "`mname'"
= .names.Arrpush "hac"
-----

> ----- end _optlist.add
> opt -----
- }
- local OPTNAMES ```.`o'.dumpnames'''
-----

> ----- begin _optlist.dumpna
> mes -----
- version 9
- forval i = 1/`.names.arnels' {
= forval i = 1/8 {
- local namelist `namelist' `.names[`i']'
= local namelist eim
- }
- local namelist `namelist' `.names[`i']'
= local namelist eim oim
- }
- local namelist `namelist' `.names[`i']'
= local namelist eim oim opg
- }
- local namelist `namelist' `.names[`i']'
= local namelist eim oim opg robust
- }
- local namelist `namelist' `.names[`i']'
= local namelist eim oim opg robust jackknife1
- }
- local namelist `namelist' `.names[`i']'

```



```

= local namelist eim oim opg robust jackknife1 jknife1
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust jackknife1 jknife1 unbiased
- }
- local namelist `namelist' `.names['i']'
= local namelist eim oim opg robust jackknife1 jknife1 unbiased nati
> ve
- }
- local namelist : list uniq namelist
- sreturn local namelist ``namelist'''
= sreturn local namelist `eim oim opg robust jackknife1 jknife1 unb
> iased native'''
- class exit ``namelist'''
= class exit `eim oim opg robust jackknife1 jknife1 unbiased native
> '''

_____
> _____ end _optlist.dumpna
> mes _____
= local OPTNAMES `eim oim opg robust jackknife1 jknife1 unbiased nati
> ve'''
- local ARGOPTNAMES ``.a'.dumpnames'''

_____
> _____ begin _optlist.dumpna
> mes _____
- version 9
- forval i = 1/`.names.arnels' {
= forval i = 1/2 {
- local namelist `namelist' `.names['i']'
= local namelist cluster
- }
- local namelist `namelist' `.names['i']'
= local namelist cluster hac
- }
- local namelist : list uniq namelist
- sreturn local namelist ``namelist'''
= sreturn local namelist `cluster hac'''
- class exit ``namelist'''
= class exit `cluster hac'''

_____
> _____ end _optlist.dumpna
> mes _____
= local ARGOPTNAMES `cluster hac'''
- local AND : list OPTNAMES & ARGOPTNAMES
- if `:list sizeof AND' {
= if 0 {

```

```

di as err "vcetype ``:word 1 of `AND'' specified twice"
exit 198
}
- local pwallowed : list uniq pwallowed
- local pwlist robust cluster
- foreach n of local pwallowed {
  local lc = lower("`n'")
  local pwlist `pwlist' `lc'
}
- if "`old_is_ok'" != "" {
= if "old_is_ok" != "" {
- local ROBUST robust
- if `:list ROBUST in OPTNAMES' {
= if 1 {
- local robust Robust
- }
- local CLUSTER cluster
- if `:list CLUSTER in ARGOPTNAMES' {
= if 1 {
- local cluster CLuster(varname)
- }
- }
- local 0 ```user''
= local 0 `", vce()'
- syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster' ]
= syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(varname) ]
- if ```vce'' != "" {
= if `'' != "" {
  gettoken name args : vce, parse(" ,")
  local args : list retok args
  capture ParseVCE `o' `a' , `name'
  if c(rc) {
di as err "vcetype {bf:`name'} not allowed"
exit 198
}
  local name `r(vce)'
  if "`weight'" == "pweight" & !`:list name in pwlist' {
di as err "pweights are not allowed with vce(`name')"
exit 198
}
  return add
  if ```robust'' != "" & !inlist("`name'", "", "robust", "eim", "oim", "cl
> uster") {
  opts_exclusive "`robust' vce(`name')"
}
  if "`name'" == "cluster" {

```

```

if ``args''' == "" {
di as err "invalid vce(cluster) option"
exit 198
}
confirm var `args'
unab args : `args'
local markout `args'
if "`cluster'" != "" {
if !`:list args == cluster' {
di as err "options cluster() and vce(cluster) are in conflict"
exit 100
}
}
}
else if "`cluster'" != "" & !inlist("`name'", "eim", "oim") {
opts_exclusive "cluster() vce(`name')"
}
if ``args''' != "" {
if !`:list name in ARGOPTNAMES' {
di as err "invalid vce() option"
exit 198
}
if "`name'" == "hc2" {
confirm var `args'
unab args : `args'
local markout `args'
}
return local vceargs ```:list retok args'''
}
else if `:list name in ARGOPTNAMES' {
if "`noargopt_is_ok'" == "" {
di as err "invalid vce() option"
exit 198
}
}
}
- else {
- if "`weight'" == "pweight" | "`robust'" != "" {
= if "" == "pweight" | "" != "" {
local vce robust
}
- if "`cluster'" != "" {
= if "" != "" {
local vce cluster
local args `cluster'
local markout `cluster'

```

```

    }
- return local vce ``vce'''
= return local vce `'''
- return local vceargs ``args'''
= return local vceargs `'''
- }
- if ``return(vce)'' != "" {
= if "" != "" {
    if ``return(vceargs)''' != "" {
        local ss " "
    }
    return local vceopt `vce(`return(vce)''ss''return(vceargs)')''
}
- if ``return(vce)'' == "cluster" {
= if "" == "cluster" {
    return local cluster `return(vceargs)'
}
- if inlist(`return(vce)'', "robust", "cluster") {
= if inlist("", "robust", "cluster") {
    return local robust robust
}
- if ``touse'' != "" {
= if "" != "" {
    if ``markout'' != "" {
        markout `touse' `markout', strok
    }
}
}
}

> _____ end _vce_pa
> rse _____
- if ``r(vce)'' != "" {
= if "" != "" {
    local vce1 `r(vce)' `r(vceargs)'
}
- if ``vce''vce1''' != "" {
= if ``robust'' != "" {
- if ``vce1''' != "" {
= if `''' != "" {
    if !inlist("oim", ``vce''', ``vce1''') & !inlist("eim", ``vce''', ``vc
> e1''') {
    opts_exclusive "vce(`vce') vce(`vce1')"
}
else if !inlist("oim", ``vce''', ``vce1''') {
    local eim eim
}
else if !inlist("eim", ``vce''', ``vce1''') {

```

```

    local oim oim
  }
  else {
    opts_exclusive "vce(`vce') vce(`vce1')"
  }
  local vce `vce' `vce1'
  local vce : list vce - oim
  local vce : list vce - eim
  local vce1
}
- if ``vce' == "oim" {
= if `"robust" == "oim" {
  local oim oim
}
- if ``vce' == "eim" {
= if `"robust" == "eim" {
  local eim eim
}
- if !("`vce'"=="robust" & "`oldvce'"=="unbiased") & !("`vce'"=="cluster
> " & "`oldvce'"=="unbiased") & !inlist("`oldvce'", "", "`vce'") & !inlist("`v
> ce'", "", "oim", "eim") {
  = if !("robust"=="robust" & ""=="unbiased") & !("robust"=="cluster" & ""
> == "unbiased") & !inlist("", "", "robust") & !inlist("robust", "", "oim", "ei
> m") {
    opts_exclusive "`vce(`vce') `oldvce'"
  }
  - if !inlist("`vce'", "", "cluster") {
  = if !inlist("robust", "", "cluster") {
  - MapVCE "`irls'" `vce'
  = MapVCE "" robust
}

> ----- begin glm.Map
> VCE -----
  - gettoken irls 0 : 0
  - local 0 : list retok 0
  - gettoken vce vcerest: 0, parse(", ")
  - local vcerest : list retok vcerest
  - local len : length local vce
  - if inlist("`vce'", "jknife1", "jackknife1") {
  = if inlist("`robust'", "jknife1", "jackknife1") {
    local norest norest
    local vce jknife1
    local vcespec jknife1
  }
  - else if ``vce' == "hac" {
  = else if `"robust" == "hac" {

```

```

if ``vcerest''' == "" {
di as err "option vce(hac) misspecified"
exit 198
}
local vcespec ``vcerest'''
local vcerest
}
- else if ``vce''' == bsubstr("robust",1,max(1,`len')) {
= else if ``robust''' == bsubstr("robust",1,max(1,6)) {
- local norest norest
- local vce robust
- local vcespec robust
- }
- else if ``vce''' == bsubstr("unbiased",1,max(3,`len')) {
= else if ``robust''' == bsubstr("unbiased",1,max(3,6)) {
local norest norest
local vce unbiased
local vcespec unbiased
}
- else if ``vce''' == "eim" {
= else if ``robust''' == "eim" {
local norest norest
local vce eim
local vcespec eim
}
- else {
if ``vce''' == "oim" {
local norest norest
local vcespec oim
}
else if ``vce''' == "opg" {
local norest norest
local vcespec opg
}
else if ``0''' != "" {
if ``irls''' != "" {
di as err "option vce(`0') is not allowed with irls"
exit 198
}
else {
local vceopt ``vce(`0)'''
}
}
}
- if ``norest''' != "" & ``vcerest''' != "" {
= if "norest" != "" & ``''' != "" {

```

```

        di as err "option vce(`0') invalid"
        exit 198
    }
    - sreturn local vce ``vce'''
    = sreturn local vce ``robust'''
    - sreturn local vcespec ``vcespec'''
    = sreturn local vcespec ``robust'''
    - sreturn local vceopt ``vceopt'''
    = sreturn local vceopt ``'''

> _____ end glm.Map
> VCE _____
    - if ``s(vce)''' != "" {
    = if ``robust''' != "" {
    - local vce `s(vce)'
    = local vce robust
    - local `vce' `s(vcespec)'
    = local robust robust
    - }
    - if ``s(vceopt)''' != "" {
    = if ``''' != "" {
        local options ``options' `s(vceopt)'''
    }
    - }
    - }
    - else {
        if ``nwest''' != "" {
            local hac ``nwest'''
        }
    }
    - c_local bstrap ``bstrap'''
    = c_local bstrap ``'''
    - c_local brep ``brep'''
    = c_local brep ``-1'''
    - c_local jknife ``jknife'''
    = c_local jknife ``'''
    - c_local jknife1 ``jknife1'''
    = c_local jknife1 ``'''
    - c_local hac ``hac'''
    = c_local hac ``'''
    - c_local oim ``oim'''
    = c_local oim ``'''
    - c_local opg ``opg'''
    = c_local opg ``'''
    - c_local unbiased ``unbiased'''
    = c_local unbiased ``'''

```

```

- if "`robust'" != "" {
= if "robust" != "" {
- c_local robust ```robust'""
= c_local robust `robust'
- }
- c_local vce ```vce'""
= c_local vce `robust'
- c_local cluster ```cluster'""
= c_local cluster `""'
- c_local options ```options'""
= c_local options `""'

```

```

> ----- end glm.Get
> VCE -----
- if "`family'" != "" {
= if "nbinomial" != "" {
- local argfam `family(`family')'
= local argfam `family(nbinomial)'
- }
- if "`link'" != "" {
= if "log" != "" {
- local arglink `link(`link')'
= local arglink `link(log)'
- }
- if "`init'" != "" & "`mu'" != "" & "`init'" != "`mu'" {
= if "" != "" & "" != "" & "" != "" {
noi di as err "mu() and init() should use the same varname"
exit 198
}
- if "`init'" != "" {
= if "" != "" {
local init "`init'"
}
- else local init "`mu'"
= else local init ""
- if "`dots'" == "nodots" {
= if "" == "nodots" {
local dots ""
}
- else local dots "dots"
- if "`unbiased'" != "" {
= if "" != "" {
local robust "robust"
}
- if `vfactor' <= 0.0 {
= if 1 <= 0.0 {

```



```

        di as err "vfactor() must be positive"
        exit 198
    }
- if `iterate' < 0 {
= if 300 < 0 {
    di as err "iterate() must be positive"
    exit 198
}
- _get_diopts diopts options, `options'
= _get_diopts diopts options,

> _____ begin _get_dio
> pts _____
    - version 11
    - syntax namelist(max=2) [, *]
    - gettoken name1 namelist : namelist
    - gettoken name2 namelist : namelist
    - GetDiopts diopts options, `options'
    = GetDiopts diopts options,

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels NO
> BASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NOOM
> ITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat(string) sforma
> t(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(st
> ring) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV AB
> BREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels ALL
> BASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EM
> PTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat(s
> tring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru
> ) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru
> ) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {

```

```

= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
- if `n` < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`allbaselevels` `nobaselevels`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
    - if `n` < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels` `nobaselevels`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}

```

```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive ``coeflegend' `selegend'
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive ``noci' `nopvalues'
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive
- local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'

```

```

= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel

```

```

- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
}
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
}
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
}
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
}
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
}
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth("`cformat'") > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat "`cformat'"
  local cformat `cformat(`cformat')'
}
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth("`sformat'") > 8 {
    local sformat "%8.2f"
    di "{txt}note: invalid sformat(), using default"
  }
}

```



```

        sreturn local sformat ``sformat'''
        local sformat `sformat(`sformat')''
    }
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`pformat') > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat ``pformat'''
    local pformat `pformat(`pformat')''
}
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraapon , `fvwraapon'
= Wraapon ,

> ----- begin _get_diopts.Wra
> pon -----
    - capture syntax [, WOrd WIdth]
    - if c(rc) {
        di as err "invalid fvwrapon() option;"
        syntax [, WOrd WIdth]
        exit 198
    }
    - opts_exclusive "`word' `width'" fvwrapon
    = opts_exclusive " " fvwrapon

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts''' != "" {
    = while `''' != "" {
        local ++n
        gettoken item`n' opts : opts, bind

```

```

    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}


---


> ----- end opts_exclus
> ive -----
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }
}


---


> ----- end _get_diopts.Wra
> pon -----
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevels'
> `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend'
> `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwrap
> ' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local diopts
    - if `K' == 2 {
    = if 2 == 2 {
    - c_local `c_opts' ``options''
    = c_local options `''
    - }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95
}


---


> ----- end _get_diopts.GetDio
> pts -----
    - c_local `name1' ``diopts''
    = c_local diopts `''
    - local snames : s(macros)
    - foreach sname of local snames {
    - local S_`sname' = s(`sname')

```

```

= local S_level = s(level)
- }
- local S_`sname' = s(`sname')
= local S_vcespec = s(vcespec)
- }
- local S_`sname' = s(`sname')
= local S_vce = s(vce)
- }
- local S_`sname' = s(`sname')
= local S_namelist = s(namelist)
- }
- local S_`sname' = s(`sname')
= local S_after = s(after)
- }
- local S_`sname' = s(`sname')
= local S_before = s(before)
- }
- local S_`sname' = s(`sname')
= local S_optlist = s(optlist)
- }
- local S_`sname' = s(`sname')
= local S_fvops = s(fvops)
- }
- sreturn clear
- GetDiopts DEFAULT

```

```

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels NO
> BASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NOOM
> ITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sforma
> t(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(st
> ring) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV AB
> BREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels ALL
> BASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EM
> PTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(s
> tring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru
> ) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru
> ) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "

```

```

> _____ begin opts_exclus
> ive _____

```

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`allbaselevels' `nbaselevels'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels' `nbaselevels'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts

```

```

- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted' `noomitted'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {

```

```

        - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`coeflegend' `selegend'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____

```

```

- opts_exclusive ""`nocl' `nopvalues'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ""`opts'" != "" {
= while "" != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive
- local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive ""`coding' `compare'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ""`opts'" != "" {
= while "" != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive
- opts_exclusive ""`versus' `compare'"
= opts_exclusive " "

```



```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive ``abbrev' `noabbrev'
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels
    - local emptycells `emptycells' `noemptycells'
    = local emptycells

```

```

- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
}
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
}
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
}
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
}
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
}
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth("`cformat'") > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat "`cformat'"
  local cformat `cformat(`cformat')'
}
- if `:length local sformat' {

```

```

= if 0 {
    confirm numeric format `sformat'
    if fmtwidth(`""sformat'") > 8 {
        local sformat "%8.2f"
        di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat `""sformat'
    local sformat `sformat(`sformat')"
}
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`""pformat'") > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat `""pformat'
    local pformat `pformat(`pformat')"
}
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraapon , `fvwraapon'
= Wraapon ,

> ----- begin _get_diopts.Wra
> pon -----
    - capture syntax [, W0rd WIdth]
    - if c(rc) {
        di as err "invalid fvwrapon() option;"
        syntax [, W0rd WIdth]
        exit 198
    }
    - opts_exclusive ""`word' `width'" fvwrapon
    = opts_exclusive " " fvwrapon

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'

```

```

        = local opts
        - local n 0
        - while ``opts'' != "" {
        = while `'' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
        }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
    }

> _____ end opts_exclus
> ive _____
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }

> _____ end _get_diopts.Wra
> pon _____
    - if ``fvwrap'' != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevels'
> `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend'
> `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwrap
> ' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
    = c_local DEFAULT
    - if `K' == 2 {
    = if 1 == 2 {
        c_local `c_opts' ``options''
    }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95

> _____ end _get_diopts.GetDio
> pts _____

```

```

- if ``name2''' == '' {
= if ``options''' == '' {
    GetDiopts DUPS, `options'
  }
- else {
- GetDiopts DUPS options, `options'
= GetDiopts DUPS options,

```

```

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels NO
> BASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NOOM
> ITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat(string) sforma
> t(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(st
> ring) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV AB
> BREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels ALL
> BASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EM
> PTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat(s
> tring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru
> ) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru
> ) NOABBREV ABBREV *]
    - opts_exclusive ``allbaselevels' `noallbaselevels''
    = opts_exclusive " "

```

```

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts''' != '' {
    = while `''' != '' {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive ``allbaselevels' `nobaselevels''
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels' `nobaselevels'"
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`omitted' `noomitted'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0

```

```

- while ``opts'' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
      }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind

```



```

    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ``opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ``opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

```

```

> _____ end opts_exclus
> ive _____
  - local K : list sizeof namelist
  - gettoken c_diopts c_opts : namelist
  - opts_exclusive "`coding' `compare'"
  = opts_exclusive " "
  _____

> _____ begin opts_exclus
> ive _____
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while ```opts'`` != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
  _____

> _____ end opts_exclus
> ive _____
  - opts_exclusive "`versus' `compare'"
  = opts_exclusive " "
  _____

> _____ begin opts_exclus
> ive _____
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while ```opts'`` != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
  _____

> _____ end opts_exclus

```

```

> ive
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

>
> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

>
> ive
- local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
}
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
}
- }
- if "`emptycells'" == "" {

```

```

= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth("`sformat'") > 8 {
      local sformat "%8.2f"
      di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat "`sformat'"
    local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth("`pformat'") > 5 {
      local pformat "%5.3f"
      di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat "`pformat'"
    local pformat `"pformat(`pformat')"'
  }

```

```

    }
    - if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
    }
    - if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
    }
    - Wraupon , `fvwraupon'
= Wraupon ,

> ----- begin _get_diopts.Wra
> pon -----
    - capture syntax [, W0rd WIdth]
    - if c(rc) {
        di as err "invalid fvwraupon() option;"
        syntax [, W0rd WIdth]
        exit 198
    }
    - opts_exclusive "`word' `width'" fvwraupon
= opts_exclusive " " fvwraupon

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ``opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - local fvwraupon `word' `width'
= local fvwraupon
    - if `:length local fvwraupon' {
= if 0 {
        c_local fvwraupon fvwraupon(`fvwraupon')

```

```

    }
}

> _____ end _get_diopts.Wra
> pon _____
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevels'
> `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend'
> `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwrap
> ' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
    = c_local DUPS
    - if `K' == 2 {
    = if 2 == 2 {
    - c_local `c_opts' ``options'''
    = c_local options `'''
    - }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95

> _____ end _get_diopts.GetDio
> pts _____
    - c_local `name2' ``options'''
    = c_local options `'''
    - }
    - local DUPS : list DUPS - DEFAULT
    - gettoken DUPS : DUPS
    - if ``DUPS''' != "" {
    = if `''' != "" {
        if (strpos(`DUPS'', "(")) {
            gettoken DUPS : DUPS, parse("(")
            local DUPS `DUPS'()'
        }
        di as err "duplicate {bf:`DUPS'} option not allowed"
        exit 198
    }
    - sreturn clear
    - foreach sname of local snames {
    - sreturn local `sname' = ``S_`sname'''

```

```

= sreturn local level = ``95''
- }
- sreturn local `sname' = ``S_`sname''''
= sreturn local vcespec = ``robust''
- }
- sreturn local `sname' = ``S_`sname''''
= sreturn local vce = ``robust''
- }
- sreturn local `sname' = ``S_`sname''''
= sreturn local namelist = ``cluster hac''
- }
- sreturn local `sname' = ``S_`sname''''
= sreturn local after = `", vce()'
- }
- sreturn local `sname' = ``S_`sname''''
= sreturn local before = `", opt(EIM OIM OPG Robust jackknife1 jknife1 U
> NBIased NATIVE) argopt(CLuster HAC) old ''
- }
- sreturn local `sname' = ``S_`sname''''
= sreturn local optlist = ``CLuster HAC''
- }
- sreturn local `sname' = ``S_`sname''''
= sreturn local fvops = ``true''
- }

> _____ end _get_dio
> pts _____
- mlopts mlopts, `options'
= mlopts mlopts,

> _____ begin mlo
> pts _____
- version 8.0
- local maxoptlist MLOPTs(string) TRace TRACEDiffs GRADient HESSian SHOW
> STEP ITERate(int -1) TOLerance(real -1) LTOLerance(real -1) GTOLerance(real
> -1) NONRTOLerance SHOWNRtolerance SHOWTOLerance NRTOLerance(real -1) QTOLera
> nce(real -1) DIFFicult HALFSTEPonly CONSTraints(string) noCNSNOTes COLLlinear
> TECHnique(passthru) VCE(passthru) DOTS depsilon(passthru) SHOWH NOTCONCAVE(
> passthru) USEVIEWS NOLOg LOg nrderiv
- syntax namelist(id="macro names" min=1 max=2) [, `maxoptlist' * ]
= syntax namelist(id="macro names" min=1 max=2) [, MLOPTs(string) TRace
> TRACEDiffs GRADient HESSian SHOWSTEP ITERate(int -1) TOLerance(real -1) LTOL
> erance(real -1) GTOLerance(real -1) NONRTOLerance SHOWNRtolerance SHOWTOLera
> nce NRTOLerance(real -1) QTOLerance(real -1) DIFFicult HALFSTEPonly CONSTrai
> nts(string) noCNSNOTes COLLlinear TECHnique(passthru) VCE(passthru) DOTS deps
> ilon(passthru) SHOWH NOTCONCAVE(passthru) USEVIEWS NOLOg LOg nrderiv * ]

```

```

- gettoken dest rest : namelist
- if "`rest'" == "" {
= if "" == "" {
- syntax namelist [, `maxoptlist' ]
= syntax namelist [, MLOPTs(string) TRace TRACEDiffs GRADient HESSian SH
> OWSTEP ITERate(int -1) TOLerance(real -1) LTOLerance(real -1) GTOLerance(rea
> l -1) NONRTOLerance SHOWNRtolerance SHOWTOLerance NRTOLerance(real -1) QTOLe
> rance(real -1) DIFFicult HALFSTEPonly CONSTraints(string) noCNSNOTes COLLine
> ar TECHnique(passthru) VCE(passthru) DOTS depsilon(passthru) SHOWH NOTCONCAV
> E(passthru) USEVIEWS NOLog LOG nrderiv ]
- }
- local mlopts `mlopts' `trace' `tracediffs' `gradient' `hessian' `shows
> tep' `difficult' `halfsteponly' `nonrtolerance' `shownrtolerance' `showtoler
> ance' `dots' `depsilon' `showh' `notconcave' `useviews' `log' `nolog' `nrder
> iv'
= local mlopts
- if `tolerance' != -1 {
= if -1 != -1 {
local tol "tolerance(`tolerance')"
}
- if `ltolerance' != -1 {
= if -1 != -1 {
local ltol "ltolerance(`ltolerance')"
}
- if `gtolerance' != -1 {
= if -1 != -1 {
local gtol "gtolerance(`gtolerance')"
}
- if `nrtolerance' != -1 {
= if -1 != -1 {
local nrtol "nrtolerance(`nrtolerance')"
}
- if `qtolerance' != -1 {
= if -1 != -1 {
local qtol "qtolerance(`qtolerance')"
}
- if `iterate' != -1 {
= if -1 != -1 {
local iter "iterate(`iterate')"
}
- sreturn clear
- if "`technique' `vce'" != "" {
= if "" != "" {
ml_technique, `technique' `vce' nodefault
if ``s(technique)'' != "" {
local technique "technique(`s(technique)')"

```



```

    }
    if "`s(vce)'" != "" {
        local vce "`s(vceopt)'"
    }
    sreturn local technique "`technique'"
    sreturn local vce "`vce'"
    }
- if "`constraints'" != "" {
= if "" != "" {
    capture confirm name `constraints'
    if _rc {
        CheckClist constraints , constraints(`constraints')
    }
    else {
        CheckCmat `constraints'
    }
    local const "constraints(`constraints')"
```

```

    sreturn local constraints "`constraints'"
    }
- sreturn local collinear "`collinear'"
= sreturn local collinear ""
- c_local `dest' `mlopts' `tol' `ltol' `gtol' `nrtol' `iter' `const' `cn
> snotes' `collinear' `technique' `vce' `qtol'
    = c_local mlopts
    - if "`rest'" != "" {
    = if "" != "" {
        c_local `rest' ``options'""
    }
}

> _____ end mlo
> pts _____
- local cns `s(constraints)'
= local cns
- local coll `s(collinear)'
= local coll
- if ``coll' != "" & "irls" != "" {
= if `""' != "" & "" != "" {
    version 8: di as err "option {bf:collinear} not allowed"
    exit 198
}
- if `ltolerance' == -1 {
= if -1 == -1 {
- local ltol 1e-6
- }
- else {
    local ltol `ltolerance'
```

```

    if "`irls'" == "" {
        local mlopts ``mlopts' ltol(`ltol')''
    }
}

- if `ltol'>=1 | `ltol'<0 {
= if 1e-6>=1 | 1e-6<0 {
    di as err "ltolerance() must be in [0,1)"
    exit 198
}

- if "`ml'"!=" & "`irls'"!=" {
= if ""!=" & ""!=" {
    di as err "ml and irls options may not be combined"
    exit 198
}

- if "`irls'" != "" {
= if "" != "" {
    if ``from'" != "" {
        di as err "option {bf:from()} not allowed " "in combination with option
> {bf:irls}"
        exit 198
    }
    if "`search'" != "" {
        di as err "option {bf:search} not allowed " "in combination with option
> {bf:irls}"
        exit 198
    }
}

- if ``score'"!=" {
= if `""'!=" {
    if "`irls'" != "" {
        di as err "deviance scores are calculated " "postestimation via predict,
> score"
        exit 198
    }
    confirm new variable `score'
    local nword : word count `score'
    if `nword' > 1 {
        di as err "score() must contain the name of only " "one new variable"
        exit 198
    }
    tempvar scvar
    local scopt score(`scvar')
}

- if ``cluster'"!=" {
= if `""'!=" {
    if "`knife'"`bootstrap'" == "" {

```

```

    local robust "robust"
  }
  local clopt cluster(`cluster')
}
- if "`bstrap'" == "" {
= if "" == "" {
- if !inlist("`brep'", "", "-1") {
= if !inlist("-1", "", "-1") {
  di as err "brep() only valid with bstrap"
  exit 198
}
- else local brep -1
- }
- if "`bstrap'" != "" {
= if "" != "" {
  if `brep' == -1 {
    local brep = 199
  }
  if `brep' <= 40 {
    di as err "bootstrap replications must be > 40"
    exit 198
  }
}
- local tsops = index("`varlist'", ".")
= local tsops = index("piq_timing_max rule_g rule_itr estimated i.stky_wg#
> i.wg_ndx i.stky_wg#i.not_wg_ndx", ".")
- if `tsops' {
= if 43 {
- local PROB `bstrap' `jknife' `jknife1'
= local PROB
- if `:length local PROB' {
= if 0 {
  gettoken PROB : PROB
  if ``PROB' == "jknife1" {
    local PROB "vce(jackknife1)"
  }
  di as error "{p}"
  di as error "cannot use factor variables or "
  di as error "time-series operators with option `PROB'"
  di as error "{p_end}"
  exit 101
}
- }
- if `fisher' != -1 {
= if -1 != -1 {
  if "`irls'" != "" {

```

```

di as err "fisher() only valid with Newton–Raphson optimization"
exit 198
}
if `fisher' <= 0 {
di as err "fisher() must be positive"
exit 198
}
}
- if `disp' < 0 {
= if 1 < 0 {
di as err "disp() must be positive"
exit 198
}
- if ``scale' != "" {
= if ``' != "" {
if "robust" opg "hac" jknife1 jknife bstrap != "" {
di as err "cannot use scale() with alternate variances"
exit 198
}
if ``scale' == "x2" {
local scale 0
}
else if ``scale' == "dev" {
local scale -1
}
else {
capture confirm number `scale'
if _rc {
di as err "invalid scale()"
exit 198
}
if `scale' <= 0 {
di as err "scale(#) must be positive"
exit 198
}
}
}
- if "scale" == "-1" & "irls" == "" {
= if "" == "-1" & "" == "" {
di as err "option {bf:scale(dev)} allowed only with option {bf:irls}"
exit 198
}
- if `disp' != 1 & "irls" == "" {
= if 1 != 1 & "" == "" {
di as err "disp() allowed only with irls option"
exit 198
}

```

```

    }
    - MapFL ``family'' ``link''
    = MapFL ``nbinomial'' ``log''

> ----- begin glm.Ma
> pFL
    - args f ulink
    - MapFam `f'
    = MapFam nbinomial

> ----- begin glm.Map
> Fam
    - args f
    - local s1
    - local f = lower(trim(``f''))
    = local f = lower(trim(``nbinomial''))
    - local l = length(``f'')
    = local l = length(``nbinomial'')
    - if ``f''==`` { local s1 "1" }
    = if ``nbinomial''==`` { local s1 "1" }
    - else if ``f''==bsubstr("gaussian",1,max(`l',3)) { local s1 "1" }
    = else if ``nbinomial''==bsubstr("gaussian",1,max(9,3)) { local s1 "1" }
> }
    - else if ``f''==bsubstr("normal",1,`l') { local s1 "1" }
    = else if ``nbinomial''==bsubstr("normal",1,9) { local s1 "1" }
    - else if ``f''==bsubstr("binomial",1,`l') { local s1 "2" }
    = else if ``nbinomial''==bsubstr("binomial",1,9) { local s1 "2" }
    - else if ``f''==bsubstr("bernoulli",1,`l') { local s1 "2" }
    = else if ``nbinomial''==bsubstr("bernoulli",1,9) { local s1 "2" }
    - else if ``f''==bsubstr("poisson",1,`l') { local s1 "3" }
    = else if ``nbinomial''==bsubstr("poisson",1,9) { local s1 "3" }
    - else if ``f''==bsubstr("gamma",1,max(`l',3)) { local s1 "4" }
    = else if ``nbinomial''==bsubstr("gamma",1,max(9,3)) { local s1 "4" }
    - else if ``f''==bsubstr("igaussian",1,max(`l',2)) { local s1 "5" }
    = else if ``nbinomial''==bsubstr("igaussian",1,max(9,2)) { local s1 "5" }
> " }
    - else if ``f''==bsubstr("inormal",1,max(`l',2)) { local s1 "5" }
    = else if ``nbinomial''==bsubstr("inormal",1,max(9,2)) { local s1 "5" }
> }
    - else if ``f''=="ivg" { local s1 "5" }
    = else if ``nbinomial''=="ivg" { local s1 "5" }
    - else if ``f''==bsubstr("nbinomial",1,max(2,`l')) { local s1 "6" }
    = else if ``nbinomial''==bsubstr("nbinomial",1,max(2,9)) { local s1 "6" }
> " }
    - if ``s1'' != `` {
    = if "6" != `` {

```

```

- local s1 "glim_v`s1'"
= local s1 "glim_v6"
- }
- else {
  local s1 ``f''
  }
- ret local famcode `s1'
= ret local famcode glim_v6

```

```

> end glm.Map
> Fam
- local fam ``r(famcode)''
= local fam ``glim_v6''
- local mfixed 1
- local m 1
- local k 1
- if ``fam''=="glim_v2" {
= if ``glim_v6''=="glim_v2" {
  tokenize ``f''
  if ``2''!="" {
    capture confirm number `2'
    if _rc {
      unabbrev `2'
      local m ``s(varlist)''
      local mfixed 0
    }
    else {
      if `2'>=. | `2'<1 {
        di as err ``2' in family(binomial `2') invalid''
        exit 198
      }
      local m `2'
    }
  }
  if ``3''!="" {
    di as err "family(`f') invalid"
    exit 198
  }
}
- if ``fam''=="glim_v6" {
= if ``glim_v6''=="glim_v6" {
  - tokenize ``f''
= tokenize ``nbinomial''
  - if ``2''!="" {
= if ``'' != "" {
  if ``2'' != "ml" {

```

```

confirm number `2'
if `2'<=0 {
di as err ``2' in family(nbinomial `2') invalid"
exit 198
}
}
local k `2'
}
- if ``3'!='' {
= if ``'!='' {
di as err "family(`f') invalid"
exit 198
}
- }
- if ``fam'~="glim_v1" & ``fam'~="glim_v2" & ``fam'~="glim_v3"
> & ``fam'~="glim_v4" & ``fam'~="glim_v5" & ``fam'~="glim_v6" {
= if ``glim_v6'~="glim_v1" & ``glim_v6'~="glim_v2" & ``glim_v6'~="gli
> m_v3" & ``glim_v6'~="glim_v4" & ``glim_v6'~="glim_v5" & ``glim_v6'~="glim
> _v6" {
tokenize ``f'
if ``2' != '' {
global SGLM_fa `2'
}
if ``3'!='' {
di as err "family(`f') invalid"
exit 198
}
}
- MapLink `ulink'
= MapLink log

> _____ begin glm.MapL
> ink _____
- args ulink upow rest
- if ``rest'!='' {
= if ``'!='' {
di as err "link(`ulink' `upow' `rest') invalid"
exit 198
}
- local ulink = lower(`ulink')
= local ulink = lower(`log')
- local l = length(`ulink')
= local l = length(`log')
- local s1 "11"
- local s2 .
- if ``ulink'=='' { local s1 '' }

```

```

= if `"log"'=="" { local s1 "" }
- else if `""`ulink'""'==bsubstr("identity",1,`l') { local s1 "01"
= else if `"log"'==bsubstr("identity",1,3) { local s1 "01"
  local s2 1 }
- else if `""`ulink'""'==bsubstr("reciprocal",1,`l') { local s1 "09"
= else if `"log"'==bsubstr("reciprocal",1,3) { local s1 "09"
  local s2 -1 }
- else if `""`ulink'""'=="log" { local s1 "03"
= else if `"log"'=="log" { local s1 "03"
- local s2 0 }
- else if `""`ulink'""'==bsubstr("power",1,max(`l',3)) {
= else if `"log"'==bsubstr("power",1,max(3,3)) {
  capture confirm number `upow'
  if _rc {
    di as err "invalid # in link(power #)"
    exit 198
  }
  if `upow' == 0 {
    local s1 "03"
  }
  if `upow' == -1 {
    local s1 "09"
  }
  else if `upow' == -2 {
    local s1 "10"
  }
  local s2 `upow'
  local upow
}
- else if `""`ulink'""'==bsubstr("opower",1,max(`l',3)) {
= else if `"log"'==bsubstr("opower",1,max(3,3)) {
  capture confirm number `upow'
  if _rc {
    di as err "invalid # in link(opower #)"
    exit 198
  }
  if `upow'==0 {
    local s1 "02"
  }
  else {
    local s1 "12"
  }
  local s2 `upow'
  local upow
}
- else if `""`ulink'""'==bsubstr("logit",1,`l') { local s1 "02"

```



```

= else if ``log''==bsubstr("logit",1,3) { local s1 "02"
  local s2 0 }
- else if ``\ulink''==bsubstr("nbinomial",1,max(`l',2)) { local s1 "0
> 4" }
= else if ``log''==bsubstr("nbinomial",1,max(3,2)) { local s1 "04" }
- else if ``\ulink''==bsubstr("logc",1,4) { local s1 "05" }
= else if ``log''==bsubstr("logc",1,4) { local s1 "05" }
- else if ``\ulink''==bsubstr("loglog",1,max(`l',4)) { local s1 "06"
> }
= else if ``log''==bsubstr("loglog",1,max(3,4)) { local s1 "06" }
- else if ``\ulink''==bsubstr("cloglog",1,`l') { local s1 "07" }
= else if ``log''==bsubstr("cloglog",1,3) { local s1 "07" }
- else if ``\ulink''==bsubstr("probit",1,`l') { local s1 "08" }
= else if ``log''==bsubstr("probit",1,3) { local s1 "08" }
- else {
  local s1
  local s2 ``upow''
}
- if ``s1'' != "" {
= if "03" != "" {
- local s1 "glim_l`s1"
= local s1 "glim_l03"
- }
- else {
  local s1 ``ulink''
}
- ret local link `s1'
= ret local link glim_l03
- ret local power `s2'
= ret local power 0

> ----- end glm.MapL
> ink -----
- local link ``r(link)''
= local link "glim_l03"
- local pow ``r(power)''
= local pow "0"
- local scale1 = ``fam''=="glim_v2" | ``fam''=="glim_v3" | ``fam''
> == "glim_v6"
= local scale1 = "glim_v6"=="glim_v2" | "glim_v6"=="glim_v3" | "gli
> m_v6"=="glim_v6"
- if ``link''=="" {
= if "glim_l03"=="" {
  local link "glim_l11"
  if ``fam''=="glim_v1" { local link "glim_l01"
  local pow 1 }

```

```

else if ``fam''=="glim_v2" { local link "glim_l02"
local pow 0 }
else if ``fam''=="glim_v3" { local link "glim_l03"
local pow 0 }
else if ``fam''=="glim_v4" { local link "glim_l09"
local pow -1 }
else if ``fam''=="glim_v5" { local link "glim_l10"
local pow -2 }
else if ``fam''=="glim_v6" { local link "glim_l03"
local pow 0 }
else local link
}
- ret local family ``fam''
= ret local family "glim_v6"
- ret local link ``link''
= ret local link "glim_l03"
- ret local power `pow'
= ret local power 0
- ret local scale `scale1'
= ret local scale 1
- ret local m `m'
= ret local m 1
- ret local mfixed `mfixed'
= ret local mfixed 1
- ret local k `k'
= ret local k 1

> _____ end glm.Ma
> pFL _____
- local family ``r(family)''
= local family "glim_v6"
- local link ``r(link)''
= local link "glim_l03"
- local pow `r(power)'
= local pow 0
- local scale1 `r(scale)'
= local scale1 1
- local m `r(m)'
= local m 1
- local mfixed `r(mfixed)'
= local mfixed 1
- local k `r(k)'
= local k 1
- tempname canon
- scalar `canon' = 0
= scalar __000001 = 0

```

```

- if ("`family'" == "glim_v1" & "`link'" == "glim_l01") {
= if ("glim_v6" == "glim_v1" & "glim_l03" == "glim_l01") {
  scalar `canon' = 1
}
- else if ("`family'"=="glim_v5" & ("`link'"=="glim_l10")) {
= else if ("glim_v6"=="glim_v5" & ("glim_l03"=="glim_l10")) {
  scalar `canon' = 1
}
- else if ("`family'" == "glim_v3" & "`link'" == "glim_l03") {
= else if ("glim_v6" == "glim_v3" & "glim_l03" == "glim_l03") {
  scalar `canon' = 1
}
- else if ("`family'" == "glim_v6" & "`link'" == "glim_l04") {
= else if ("glim_v6" == "glim_v6" & "glim_l03" == "glim_l04") {
  scalar `canon' = 1
}
- else if ("`family'" == "glim_v2" & "`link'" == "glim_l02") {
= else if ("glim_v6" == "glim_v2" & "glim_l03" == "glim_l02") {
  scalar `canon' = 1
}
- else if ("`family'" == "glim_v4" & "`link'" == "glim_l09") {
= else if ("glim_v6" == "glim_v4" & "glim_l03" == "glim_l09") {
  scalar `canon' = 1
}
- if "`link'" == "" | "`family'" == "" {
= if "glim_l03" == "" | "glim_v6" == "" {
  di as err "incomplete specification of family() and link()"
  exit 198
}
- if "`offset'" != "" & "`lnoffset'" != "" {
= if "" != "" & "" != "" {
  di as err "only one of offset() or lnoffset() can be specified"
  exit 198
}
- if "`offset'" != "" & "`exposure'" != "" {
= if "" != "" & "" != "" {
  di as err "only one of offset() or exposure() can be specified"
  exit 198
}
- if "`lnoffset'" != "" & "`exposure'" != "" {
= if "" != "" & "" != "" {
  di as err "only one of lnoffset() or exposure() can be specified"
  exit 198
}
- if "`exposure'" != "" {
= if "" != "" {

```

```

    local lnoffset `exposure'
    local exposure
  }
- if "`constant'" != "" {
= if "" != "" {
    local nvar : word count `varlist'
    if `nvar' == 1 {
    di as err "independent variables required with noconstant option"
    exit 100
    }
  }
- marksample touse
- if "`cluster'" != "" {
= if "" != "" {
    markout `touse' `cluster', strok
  }
- if "`m'" != "" {
= if "1" != "" {
- capture confirm number `m'
= capture confirm number 1
- if _rc { markout `touse' `m' }
= if _rc { markout __000002 1 }
- }
- if ``hac' == "" {
= if `'' == "" {
- if ``t' ~="" {
= if `'' ~="" {
    di as err "t() only valid with vce(hac ...)"
    exit 198
  }
- }
- if ``hac'" != "" {
= if "" != "" {
    capture xt_tis `t'
    if _rc {
    tsset `t', noquery
    }
    local tvar ``s(timevar)''
    markout `touse' `tvar'
    sort `touse' `tvar'
    cap assert `tvar'[_n-1] != `tvar' if `touse' & (`touse'[_n-1]==1)
    if _rc {
    di as err "repeated time values in sample"
    exit 451
    }
    sort `tvar'

```

```

    }
- if "`lnoffset'" != "" {
= if "" != "" {
    capture assert `lnoffset' > 0 if `touse'
    if _rc {
        di as err "exposure() must be greater than zero"
        exit 459
    }
    tempvar offset
    qui gen double `offset' = ln(`lnoffset')
    local offvar "ln(`lnoffset')"
}
- if "`offset'" != "" {
= if "" != "" {
    markout `touse' `offset'
    local offopt "offset(`offset')"
    if "`offvar'" == "" {
        local offvar "`offset'"
    }
}
- gettoken y xvars : varlist
- _fv_check_depvar `y'
= _fv_check_depvar piq_timing_max
- tsunab y : `y'
= tsunab y : piq_timing_max

```

```

> ----- begin tsu
> nab -----
    - version 6
    - gettoken user 0: 0, parse(" :")
    - gettoken colon 0: 0, parse(" :")
    - if ``"colon"' != ":" { error 198 }
    = if `":' != ":" { error 198 }
    - syntax [varlist(ts default=empty)] [, MIN(integer 1) MAX(integer 32000
> ) NAME(string)]
    - c_local `user' `varlist'
    = c_local y piq_timing_max
    - local n : word count `varlist'
    = local n : word count piq_timing_max
    - if `n'>=`min' & `n'<=`max' { exit }
    = if 1>=1 & 1<=32000 { exit }

```

```

> ----- end tsu
> nab -----
    - local yname : subinstr local y "." "_"
    - summarize `y' if `touse', meanonly

```

```

= summarize piq_timing_max if __000002, meanonly
- if r(N) == 0 { error 2000 }
- if r(N) == 1 { error 2001 }
- local nobis = round(r(N),1)
- MapHAC `nobis' `hac'
= MapHAC 217

> ----- begin glm.Map
> HAC
- args nobis f lag
- local f = lower(trim("`f'"))
= local f = lower(trim(`'))
- local l = length("`f'")
= local l = length(`')
- local s1
- local s2
- local intlag 0
- if "`f'"==" { local s1 "" }
= if `'"==" { local s1 "" }
- else if "`f'"==bsubstr("nwest",1,max(`l',2)) {
= else if `'"==bsubstr("nwest",1,max(0,2)) {
  local s1 "glim_nw1"
  local intlag 1
}
- else if "`f'"==bsubstr("bartlett",1,max(`l',2)) {
= else if `'"==bsubstr("bartlett",1,max(0,2)) {
  local s1 "glim_nw1"
  local intlag 1
}
- else if "`f'"==bsubstr("gallant",1,max(`l',2)) {
= else if `'"==bsubstr("gallant",1,max(0,2)) {
  local s1 "glim_nw2"
  local intlag 1
}
- else if "`f'"==bsubstr("parzen",1,max(`l',2)) {
= else if `'"==bsubstr("parzen",1,max(0,2)) {
  local s1 "glim_nw2"
  local intlag 1
}
- else if "`f'"==bsubstr("anderson",1,max(`l',2)) { local s1 "glim_nw3"
> " }
= else if `'"==bsubstr("anderson",1,max(0,2)) { local s1 "glim_nw3" }
- else { local s1 "`f'" }
= else { local s1 "" }
- if "`lag'" != "" {
= if "" != "" {

```

```

    if `intltag' {
    confirm integer number `lag'
    }
    if `lag' < 0 {
    noi di as err "Newey-West lag must be positive"
    exit 198
    }
  }
- else local lag = `nobs'-2
= else local lag = 217-2
- if `lag' >= `nobs'-2 & `intltag' {
= if 215 >= 217-2 & 0 {
    local lag = `nobs'-2
  }
- local s2 `lag'
= local s2 215
- ret local hacnam "`s1'"
= ret local hacnam ""
- ret local haclag "`s2'"
= ret local haclag "215"
- ret local intltag "`intltag'"
= ret local intltag "0"

```

> _____ end glm.Map

> HAC

```

- local hacnam ``r(hacnam)'''
= local hacnam `'''
- local haclag ``r(haclag)'''
= local haclag `215''
- local intltag ``r(intltag)'''
= local intltag `0''
- local fwt "1"
- local awt "1"
- tempvar wt
- if "`weight'" != "" {
= if "" != "" {
    qui gen double `wt' `exp' if `touse'
    local awt "`wt'"
    if ``weight'=="aweight" {
    summ `wt' , meanonly
    qui replace `wt' = `wt'/r(mean)
    }
    else if ``weight'=="fweight" {
    if "`bstrap'hac'" != "" {
    di as err "fweights not allowed"
    exit 198
    }
    }

```

```

    }
    if "`jknife'" != "" & "`cluster'" != "" {
        sort `cluster' `tvar' `touse'
        cap by `cluster' : assert `wt' == `wt'[_n-1] if `touse' & (`touse'[_n-1]
> ==1)
        if _rc {
            noi di as err "weight must be " "constant within `cluster'"
            exit 198
        }
        summ `touse' [fw=`wt'] if `touse' , meanonly
        local nobs = round(r(N),1)
        local fwt "`wt'"
        local awt "1"
        if "`weight'" == "pweight" {
            local robust "robust"
        }
        - else {
        - qui gen byte `wt' = `touse' if `touse'
        = qui gen byte __000003 = __000002 if __000002
        - }
        - if "`weight'"=="fweight" {
        = if ""=="fweight" {
            local wwt `[fw=`wt']"'
        }
        - else if "`weight'" == "iweight" {
        = else if "" == "iweight" {
            local wwt `[iw=`wt']"'
        }
        - else local wwt `[aw=`wt']"'
        = else local wwt `[aw=__000003]"'
        - if "`robust'" != "" {
        = if "robust" != "" {
        - if "`hacnam'"`opg'`jknife'`jknife1'" != "" {
        = if "" != "" {
            di as err "robust allowed only with hessian matrices"
            exit 198
        }
        - }
        - if "`weight'" != "" {
        = if "" != "" {
            if "`weight'" != "fweight" {
            if "`hacnam'"`opg'`jknife'`jknife1'" != "" {
            di as err "only fweights (if any) are available for non-hessian, non-boo

```



```

> tstrap matrices"
  exit 198
  }
  }
  }
- if `fvops' {
= if 1 {
- local rmcoll "version 11: _rmcoll"
- local fvexp expand
- }
- else local rmcoll _rmcoll
- local is_bin = "`family'" == "glim_v2"
= local is_bin = "glim_v6" == "glim_v2"
- if `is_bin' & "`m'" != "" {
= if 0 & "1" != "" {
  capture assert `m' == 1
  if c(rc) {
    local is_bin 0
  }
}
- if "`asis'" != "" {
= if "" != "" {
  if !`is_bin' {
    di as err "{p 0 0 2}" "option asis not allowed;{break}" "option asis is
> only allowed with family(binomial) " "with a denominator of 1" "{p_end}"
  exit 198
  }
  local is_bin 0
}
- if !`fvops' {
= if !1 {
  local is_bin 0
}
- if `is_bin' {
= if 0 {
  capture assert inlist(`y', 0, 1) if `touse'
  if c(rc) {
    local is_bin 0
  }
}
- if "`display'" != "" & "`weight'" == "aweight" {
= if "" != "" & "" == "aweight" {
  local rmwgt [iw`exp']
  local rmcoll qui `rmcoll'
}
- else {

```

```

- local rmwgt ['weight'`exp']
= local rmwgt []
- }
- if `is_bin' {
= if 0 {
    if strmatch(`"'from'"',"e(b)*") {
        tempname ehold
        _est hold `ehold', restore nullok
    }
    `rmcoll' `y' `xvars' `rmwgt' if `touse' , noskipline `coll' `constant' `
> fvexp' logit touse(`touse')
    if `"'ehold'" != "" {
        _est unhold `ehold'
    }
    local VARLIST `r(varlist)'
    gettoken y xvars : VARLIST
    summ `touse' `wgt' if `touse' , meanonly
    local nobs = round(r(N),1)
}
- else {
- `rmcoll' `xvars' `rmwgt' if `touse', `coll' `constant' `fvexp'
= version 11: _rmcoll rule_g rule_itr estimated i.stky_wg#i.wg_ndx i.stky
> _wg#i.not_wg_ndx [] if __000002, expand
note: 0.stky_wg#1.wg_ndx identifies no observations in the sample.
note: 0.stky_wg#0.not_wg_ndx identifies no observations in the sample.
note: 0.stky_wg#1.not_wg_ndx omitted because of collinearity.
note: 1.stky_wg#0.not_wg_ndx omitted because of collinearity.
note: 1.stky_wg#1.not_wg_ndx omitted because of collinearity.
- local xvars `r(varlist)'
= local xvars rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o
> .wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.s
> tky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx
- }
- global SGLM_V `"'family'"
= global SGLM_V `"glim_v6"
- global SGLM_L `"'link'"
= global SGLM_L `"glim_l03"
- global SGLM_A `"'ancilla'"
= global SGLM_A `"'
- global SGLM_y `"'y'"
= global SGLM_y `"piq_timing_max"
- global SGLM_m `"'m'"
= global SGLM_m `"1"
- if `"'k'" == "ml" {
= if `"1" == "ml" {
    qui nbreg `y' `xvars' if `touse' ['weight'`exp'], `constant' `offopt' `m

```

```

> lopts'
    local k = e(alpha)
    global SGLM_ml = "ml"
    }
    - global SGLM_a ``k'''
    = global SGLM_a ``1'''
    - global SGLM_p ``pow'''
    = global SGLM_p ``0'''
    - global SGLM_f ``fisher'''
    = global SGLM_f ``-1'''
    - global SGLM_mu
    - global SGLM_s1 ``scale1'''
    = global SGLM_s1 ``1'''
    - $SGLM_V -1 `touse'
    = glim_v6 -1 __000002

> _____ begin glim
> _v6 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
    = if -1 == -1 {
    - local y "$SGLM_y"
    = local y "piq_timing_max"
    - local m "$SGLM_m"
    = local m "1"
    - local touse ``eta'''
    = local touse "__000002"
    - capture assert `y'>=0 if `touse'
    = capture assert piq_timing_max>=0 if __000002
    - if _rc {
    di as err ``dependent variable `y' has negative values''
    exit 499
    }
    - capture assert `y'==int(`y') if `touse'
    = capture assert piq_timing_max==int(piq_timing_max) if __000002
    - if _rc {
    di as txt ``note: `y' has noninteger values''
    }
    - global SGLM_vt "Neg. Binomial"
    - local SGLM_a = round($SGLM_a,0.0001)
    = local SGLM_a = round(1,0.0001)
    - global SGLM_vf "u+(`SGLM_a')u^2"
    = global SGLM_vf "u+(1)u^2"
    - global SGLM_mu "glim_mu 0 ."
    - exit

```

```

> _____ end glim
> _v6 _____
  - $SGLM_L -1 `touse'
  = glim_l03 -1 __000002
  _____

> _____ begin glim_
> l03 _____
  - version 7
  - args todo eta mu return
  - if `todo' == -1 {
  = if -1 == -1 {
  - global SGLM_lt "Log"
  - if "$SGLM_m" == "1" {
  = if "1" == "1" {
  - global SGLM_lf "ln(u)"
  - }
  - else global SGLM_lf "ln(u/$SGLM_m)"
  = else global SGLM_lf "ln(u/1)"
  - exit
  _____

> _____ end glim_
> l03 _____
  - global SGLM_running 1
  - if "$SGLM_V" == "glim_v1" | "$SGLM_V" == "glim_v3" | "$SGLM_V" == "glim_
> v4" | "$SGLM_V" == "glim_v5" {
  = if "glim_v6" == "glim_v1" | "glim_v6" == "glim_v3" | "glim_v6" == "glim_
> v4" | "glim_v6" == "glim_v5" {
    if "$SGLM_L" == "glim_l02" | "$SGLM_L" == "glim_l04" | "$SGLM_L" == "gli
> m_l05" | "$SGLM_L" == "glim_l06" | "$SGLM_L" == "glim_l07" | "$SGLM_L" == "g
> lim_l08" | "$SGLM_L" == "glim_l12" {
      global SGLM_nonstan 1
    }
  }
  - if "$SGLM_V" == "glim_v2" {
  = if "glim_v6" == "glim_v2" {
    if "$SGLM_L" == "glim_l04" {
      global SGLM_nonstan 1
    }
  }
  - if "$SGLM_V" == "glim_v6" {
  = if "glim_v6" == "glim_v6" {
    - if "$SGLM_L" == "glim_l02" | "$SGLM_L" == "glim_l05" | "$SGLM_L" == "gli
> m_l06" | "$SGLM_L" == "glim_l07" | "$SGLM_L" == "glim_l08" | "$SGLM_L" == "g
> lim_l12" {
      = if "glim_l03" == "glim_l02" | "glim_l03" == "glim_l05" | "glim_l03" == "

```

```

> glim_l06" | "glim_l03" == "glim_l07" | "glim_l03" == "glim_l08" | "glim_l03"
> == "glim_l12" {
    global SGLM_nonstan 1
    }
    - }
    - local mllog `log' `nolog'
    = local mllog  nolog
    - _parse_iterlog, `log' `nolog'
    = _parse_iterlog,  nolog
    }
}

> ----- begin _parse_iter
> log -----
    - version 16
    - syntax [, NOLOG LOG]
    - if "`log'`nolog'" != "" {
    = if "nolog" != "" {
    - opts_exclusive "`log' `nolog'"
    = opts_exclusive " nolog"
    }
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts  nolog
    - local n 0
    - while ```opts'"" != "" {
    = while ``nolog'" != "" {
    - local ++n
    - gettoken item`n' opts : opts, bind
    = gettoken item1 opts : opts, bind
    - }
    - while ```opts'"" != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 1 < 2 {
    - exit
    }
}

> ----- end opts_exclus
> ive -----
    - }
    - else if "`c(iterlog)'" == "on" {
    = else if "on" == "on" {

```

```

        local log log
    }
- else {
    local nolog nolog
}
- sreturn local log `log'
= sreturn local log
- sreturn local nolog `nolog'
= sreturn local nolog nolog

```

```

> _____ end _parse_iter
> log _____
- local log ``s(nolog)''
= local log "nolog"
- if ``log''!= "" {
= if ``nolog''!= "" {
- local iflog ``*'
- }
- else { local iflog "noi" }
- if ``offset'' != "" {
= if "" != "" {
    local moffset = "-`offset''
}
- local reg = "$SGLM_V" == "glim_v1" & "$SGLM_L" == "glim_l01"
= local reg = "glim_v6" == "glim_v1" & "glim_l03" == "glim_l01"
- if ``irls'' == "" {
= if "" == "" {
- tempvar eta mu dmu v z W
- tempname Wscale b0
- if !inlist("`vce'", "eim", "opg") {
= if !inlist("robust", "eim", "opg") {
- local oim "oim"
- }
- if ``from'' == "" & ``search'' == "" {
= if "" == "" & "" == "" {
- quietly {
- if ``init''!= "" {
= if ``''!= "" {
    gen double `mu' = `init' if `touse'
}
- else {
- sum `y' `wt' if `touse'
= sum piq_timing_max [aw=__000003] if __000002
- if "$SGLM_V" != "glim_v2" {
= if "glim_v6" != "glim_v2" {
- gen double `mu' = (`y'+r(mean))/(`m'+1)

```

```

= gen double __000005 = (piq_timing_max+r(mean))/(1+1)
- }
- else {
  gen double `mu' = `m'*(`y'+.5)/(`m'+1)
  }
- }
- capture drop `eta'
= capture drop __000004
- $SGLM_L 0 `eta' `mu'
= glim_l03 0 __000004 __000005

```

```

> ----- begin glim_
> l03 -----
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 0 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
  }
- if `todo' == 0 {
= if 0 == 0 {
  - gen double `eta' = ln(`mu'/$SGLM_m)
  = gen double __000004 = ln(__000005/1)
  - exit
}

```

```

> ----- end glim_
> l03 -----
- $SGLM_V 1 `eta' `mu' `v'
= glim_v6 1 __000004 __000005 __000007

```

```

> ----- begin glim
> _v6 -----
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 1 == -1 {
  local y "$SGLM_y"
  local m "$SGLM_m"
  local touse "`eta'"
  capture assert `y'>=0 if `touse'
  if _rc {

```

```

di as err `"dependent variable `y' has negative values"'
exit 499
}
capture assert `y'==int(`y') if `touse'
if _rc {
di as txt `"note: `y' has noninteger values"'
}
global SGLM_vt "Neg. Binomial"
local SGLM_a = round($SGLM_a,0.0001)
global SGLM_vf "u+(`SGLM_a')u^2"
global SGLM_mu "glim_mu 0 ."
exit
}
- if `todo' == 0 {
= if 1 == 0 {
gen double `eta' = -ln1p($SGLM_a/`mu')
exit
}
- if `todo' == 1 {
= if 1 == 1 {
- gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
= gen double __000007 = __000005+__000005*__000005*1
- exit
}
}
}

> _____ end glim
> _v6 _____
- $SGLM_L 2 `eta' `mu' `dmu'
= glim_l03 2 __000004 __000005 __000006

> _____ begin glim_
> l03 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 2 == -1 {
global SGLM_lt "Log"
if "$SGLM_m" == "1" {
global SGLM_lf "ln(u)"
}
else global SGLM_lf "ln(u/$SGLM_m)"
exit
}
- if `todo' == 0 {
= if 2 == 0 {
gen double `eta' = ln(`mu'/$SGLM_m)
exit
}
}

```



```

    }
    - if `todo' == 1 {
= if 2 == 1 {
    gen double `mu' = $SGLM_m*exp(`eta')
    exit
    }
    - if `todo' == 2 {
= if 2 == 2 {
    - gen double `return' = `mu'
= gen double __000006 = __000005
    - exit
}
}
> _____ end glim_
> l03 _____
    - gen double `z' = `eta' + (`y' - `mu') / `dmu' `moffset'
= gen double __000008 = __000004 + (piq_timing_max - __000005) / __000006
    - gen double `W' = `dmu' * `dmu' / `v'
= gen double __000009 = __000006 * __000006 / __000007
    - summ `W' `wgt', meanonly
= summ __000009 [aw=__000003], meanonly
    - scalar `Wscale' = r(mean)
= scalar __00000A = r(mean)
    - if "`cns'" != "" & _caller() >= 11 {
= if "" != "" & _caller() >= 11 {
    foreach c in `cns' {
        local c`c' : constraint `c'
        local c`c'new = subinstr( "`c`c'", "[`y']", "", .)
        constraint `c' `c`c'new'
    }
    `VV' cap noisily quietly cnsreg `z' `xvars' [iw=`W'*`wt' / `Wscale'], cons
> tr(`cns') msel `constant'
    foreach c in `cns' {
        constraint `c' `c`c'
    }
    }
    - else {
    - `VV' cap noisily quietly _regress `z' `xvars' [iw=`W'*`wt' / `Wscale'], ms
> e1 `constant'
    = version 18.5, missing: cap noisily quietly _regress __000008 rule_g rule
> _itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx
> 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stk
> y_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx [iw=__000009*__000003 / __00000A],
> msel
}
}
> _____ begin _ereturn_disp
> lay _____

```

```

- version 11
- if "`e(b)'" == "" & "`e(V)'" == "" {
= if "matrix" == "" & "matrix" == "" {
  exit
}
- if "`e(cmd)'" == "regress" {
= if "regress" == "regress" {
- local ALTOPT Beta
- }
- syntax [, eform(passthru) First neq(integer -1) PPlus `ALTOPT' *]
= syntax [, eform(passthru) First neq(integer -1) PPlus Beta *]
- _get_mcompare, `options'
= _get_mcompare, level(95.00) fwrap(1)

```

```

> _____ begin _get_mcomp
> are _____
- version 11
- local cmd ``e(cmd)''
= local cmd ``regress''
- syntax [name(name=caller)] [, *]
- local is_pwc = inlist("pwcompare", ``cmd'', ``caller'') | inlist("pw
> mean", ``cmd'', ``caller'')
= local is_pwc = inlist("pwcompare", "regress", "") | inlist("pwmean",
> "regress", "")
- local is_marg = inlist("margins", ``cmd'', ``e(cmd2)'', ``caller'')
= local is_marg = inlist("margins", "regress", "", "")
- local OPTIONS NOADJust BONferroni DUNCAn DUNNett SCHeffe SIDak SNK T
> UKey ADJustall
- if `is_pwc' {
= if 0 {
  syntax [name] [, `OPTIONS' MCOMPare(string) *]
}
- else {
- syntax [name] [, MCOMPare(string) *]
- local suboption mcompare()
- }
- sreturn clear
- sreturn local options ``options''
= sreturn local options ``level(95.00) fwrap(1)''
- if `is_pwc' {
= if 0 {
  local METHOD `noadjust' `bonferroni' `duncan' `dunnett' `scheffe' `s
> idak' `snk' `tukey'
  local METHOD : list uniq METHOD
  opts_exclusive ``METHOD''
  local ALL `adjustall'

```

```

    opts_exclusive "`noadjust' `ALL'"
  }
  - local 0 `", `mcompare'""
= local 0 `", ""
  - capture syntax [, `OPTIONS']
= capture syntax [, NOADJUST BONferroni DUNCAn DUNNett SCHeffe SIDak S
> NK TUKey ADJustall]
  - if c(rc) {
    di as err "invalid mcompare() option;"
    di as err "method ``mcompare'' not allowed"
    error 198
  }
  - local METHOD `METHOD' `noadjust' `bonferroni' `duncan' `dunnett' `sc
> heffe' `sidak' `snk' `tukey'
= local METHOD
  - local METHOD : list uniq METHOD
  - local ALL `ALL' `adjustall'
= local ALL
  - local ALL : list uniq ALL
  - opts_exclusive "`METHOD'" `suboption'
= opts_exclusive "" mcompare()

_____  

> _____ begin opts_exclus
> ive _____
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
= local opts
  - local n 0
  - while ``opts'"" != "" {
= while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
  - if `n' < 2 {
= if 0 < 2 {
  - exit

_____  

> _____ end opts_exclus
> ive _____
  - if "`METHOD'" == "" {
= if "" == "" {
  - if "`ALL'" != "" {
= if "" != "" {
    di as err "multiple comparison method required with the adjustall op
> tion"

```

```

        exit 198
    }
    - local METHOD noadjust
    - local noadjust noadjust
    - }
    - opts_exclusive "`ALL' `noadjust'" `suboption'
    = opts_exclusive " noadjust" mcompare()


---


> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts noadjust
    - local n 0
    - while ``opts'" != "" {
    = while `"noadjust'" != "" {
    - local ++n
    - gettoken item`n' opts : opts, bind
    = gettoken item1 opts : opts, bind
    - }
    - while ``opts'" != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 1 < 2 {
    - exit


---


> ----- end opts_exclus
> ive -----
    - local EXCLUDE duncan dunnett snk tukey
    - if `:list METHOD in EXCLUDE' {
    = if 0 {
        if `is_pwc' {
            local opt : copy local METHOD
        }
        else {
            local opt "mcompare(`METHOD')"
        }
        local cmdlist anova manova regress mvreg pwmean
        if "`cmd'" == "pwcompare" {
            local cmd ``e(cmd_est)'"
        }
        if `is_marg' {

```

```

        local cmd margins
    }
    if !`:list cmd in cmdlist' | !`is_pwc' {
        di as err `"method `opt' is not allowed with results from `cmd'"
        exit 322
    }
    if ```e(prefix)'' == "svy" {
        di as err `"method `opt' is not allowed with results using the svy p
> refix"'
        exit 322
    }
    local vce ```e(vce)''
    if !inlist("`vce'", "", "ols") {
        di as err `"method `opt' is not allowed with results using vce(`vce'
> )"
        exit 322
    }
    }
    - local EXCLUDE duncan dunnett snk tukey scheffe
    - if `:list METHOD in EXCLUDE' {
    = if 0 {
        if "`ALL'" != "" {
            di as err `"option adjustall is not allowed with method `METHOD'"
            exit 198
        }
    }
    - sreturn local method ``METHOD''
    = sreturn local method `noadjust'
    - sreturn local adjustall ``ALL''
    = sreturn local adjustall `""'



---


> ----- end _get_mcomp
> are -----
    - if "`s(method)'" != "" {
    = if "noadjust" != "" {
    - loca mcopt mcompare(`s(method)' `s(adjustall)')
    = loca mcopt mcompare(noadjust )
    - }
    - _get_diopts diopts, `s(options)'
    = _get_diopts diopts, level(95.00) fwrap(1)



---


> ----- begin _get_dio
> pts -----
    - version 11
    - syntax namelist(max=2) [, *]
    - gettoken name1 namelist : namelist

```

```

- gettoken name2 namelist : namelist
- GetDiopts diopts options, `options'
= GetDiopts diopts options, level(95.00) fvwrap(1)

```

```

> ----- begin _get_diopts.GetDio
> pts -----
- local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels
> NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NO
> OMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sfor
> mat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(
> string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> ABBREV
- syntax namelist(max=2) [, `DIOPTS' *]
= syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels A
> LLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells
> EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat
> (string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passth
> ru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passth
> ru) NOABBREV ABBREV *]
- opts_exclusive "`allbaselevels' `noallbaselevels'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while `"'opts'"' != "" {
= while `"' != "" {
local ++n
gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`allbaselevels' `nobaselevels'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`baselevels' `nobaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0

```

```

- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
  - opts_exclusive "`fvlabel' `nofvlabel'"
  = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while ``opts'' != "" {
  = while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit

```

```

> ----- end opts_exclus
> ive -----
  - opts_exclusive "`omitted' `noomitted'"
  = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while ``opts'' != "" {
  = while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind

```



```

    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'`' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'`' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`coeflegend' `selegend'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - local K : list sizeof namelist

```

```

- gettoken c_diopts c_opts : namelist
- opts_exclusive ""`coding' `compare'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ""`opts'"" != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive
    - opts_exclusive ""`versus' `compare'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ""`opts'"" != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive
    - opts_exclusive ""`abbrev' `noabbrev'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels
    - local emptycells `emptycells' `noemptycells'
    = local emptycells
    - local omitted `omitted' `noomitted'
    = local omitted
    - local lstretch `lstretch' `nolstretch'
    = local lstretch
    - local fvlabel `fvlabel' `nofvlabel'
    = local fvlabel
    - local abbrev `abbrev' `noabbrev'
    = local abbrev
    - if "`allbaselevels'`baselevels'" == "" {
    = if "" == "" {
    - if c(showbaselevels) == "all" {
        local allbaselevels allbaselevels
    }
    - else if c(showbaselevels) == "on" {
        local baselevels baselevels
    }
    - }
    - if "`emptycells'" == "" {
    = if "" == "" {
    - if c(showemptycells) == "off" {
        local emptycells noemptycells
    }

```

```

- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth("`cformat'") > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat "`cformat'"
  local cformat `cformat(`cformat')'
}
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth("`sformat'") > 8 {
    local sformat "%8.2f"
    di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat "`sformat'"
  local sformat `sformat(`sformat')'
}
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth("`pformat'") > 5 {
    local pformat "%5.3f"
    di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat "`pformat'"
  local pformat `pformat(`pformat')'
}
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS']

```

```

    }
    - if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
    }
    - Wraapon , `fvwraapon'
= Wraapon ,

> ----- begin _get_diopts.Wra
> pon -----
    - capture syntax [, W0rd WIdth]
    - if c(rc) {
        di as err "invalid fvwraapon() option;"
        syntax [, W0rd WIdth]
        exit 198
    }
    - opts_exclusive "`word' `width'" fvwraapon
= opts_exclusive " " fvwraapon

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ``opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - local fvwraapon `word' `width'
= local fvwraapon
    - if `:length local fvwraapon' {
= if 0 {
        c_local fvwraapon fvwraapon(`fvwraapon')
    }

> ----- end _get_diopts.Wra
> pon -----

```

```

- if "`fvwrap'" != "" {
= if "fvwrap(1)" != "" {
- FVWrap, `fvwrap'
= FVWrap, fvwrap(1)
}

> ----- begin _get_diopts.FVW
> rap -----
- syntax, fvwrap(integer)
- if `fvwrap' < 0 {
= if 1 < 0 {
di as err "{p}invalid option {bf:fvwrap(`fvwrap')}"; " "nonnegati
> ve integer required{p_end}"
exit 198
}

> ----- end _get_diopts.FVW
> rap -----
- }
- c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevel
> s' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend
> ' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwr
> ap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
= c_local diopts fvwrap(1)
- if `K' == 2 {
= if 2 == 2 {
- c_local `c_opts' ``options'''
= c_local options `'''
- }
- sreturn local coding `coding'
= sreturn local coding
- sreturn local versus `versus'
= sreturn local versus
- sreturn local compare `compare'
= sreturn local compare
- sreturn local level `level'
= sreturn local level 95

> ----- end _get_diopts.GetDio
> pts -----
- c_local `name1' ``diopts'''
= c_local diopts `fvwrap(1)''
- local snames : s(macros)
- foreach sname of local snames {
- local S_`sname' = s(`sname')
= local S_level = s(level)
- }

```

```

- local S_`sname' = s(`sname')
= local S_method = s(method)
- }
- local S_`sname' = s(`sname')
= local S_options = s(options)
- }
- sreturn clear
- GetDiopts DEFAULT

```

```

> _____ begin _get_diopts.GetDio
> pts _____
- local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels
> NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NO
> OMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sfor
> mat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(
> string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> ABBREV
- syntax namelist(max=2) [, `DIOPTS' *]
= syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels A
> LLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells
> EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat
> (string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passth
> ru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passth
> ru) NOABBREV ABBREV *]
- opts_exclusive "`allbaselevels' `noallbaselevels'"
= opts_exclusive " "

```

```

> _____ begin opts_exclus
> ive _____
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
local ++n
gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> _____ end opts_exclus
> ive _____
- opts_exclusive "`allbaselevels' `nobaselevels'"

```



```

= opts_exclusive " "
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive ``baselevels' `nobaselevels'
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive ``emptycells' `noemptycells'
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____

```

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    }

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts

```

```

- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {

```

```

- exit


---


> 

---

 end opts_exclus
> ive 

---


- local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `""' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit


---


> 

---

 end opts_exclus
> ive 

---


- opts_exclusive "`versus' `compare'"
= opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `""' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit


---



```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`abbrev' `noabbrev'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while "`opts'" != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels
    - local emptycells `emptycells' `noemptycells'
    = local emptycells
    - local omitted `omitted' `noomitted'
    = local omitted
    - local lstretch `lstretch' `nolstretch'
    = local lstretch
    - local fvlabel `fvlabel' `nofvlabel'
    = local fvlabel
    - local abbrev `abbrev' `noabbrev'
    = local abbrev
    - if "`allbaselevels'`baselevels'" == "" {
    = if "" == "" {
    - if c(showbaselevels) == "all" {
        local allbaselevels allbaselevels
    }
    - else if c(showbaselevels) == "on" {
        local baselevels baselevels
    }
    - }

```

```

- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `cformat(`cformat')'
  }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth("`sformat'") > 8 {
      local sformat "%8.2f"
      di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat "`sformat'"
    local sformat `sformat(`sformat')'
  }
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth("`pformat'") > 5 {
      local pformat "%5.3f"
      di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat "`pformat'"
  }

```

```

        local pformat `"pformat(`pformat`)"'
    }
    - if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
        syntax namelist(max=2) [, `DIOPTS']
    }
    - if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
        local levelopt level(`level')
    }
    - Wraapon , `fvwraapon'
= Wraapon ,

> ----- begin _get_diopts.Wra
> pon -----
    - capture syntax [, W0rd WIdth]
    - if c(rc) {
        di as err "invalid fvwraapon() option;"
        syntax [, W0rd WIdth]
        exit 198
    }
    - opts_exclusive "`word' `width'" fvwraapon
= opts_exclusive " " fvwraapon

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts`"' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
        - exit

> ----- end opts_exclus
> ive -----
    - local fvwraapon `word' `width'
= local fvwraapon
    - if `:length local fvwraapon' {
= if 0 {

```



```

        c_local fwrapon fwrapon(`fwrapon')
    }
}
> _____ end _get_diopts.Wra
> pon _____
    - if "`fwrap'" != "" {
    = if "" != "" {
        FVWrap, `fwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevel
> s' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend
> ' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fwr
> ap' `fwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local DEFAULT
    - if `K' == 2 {
    = if 1 == 2 {
        c_local `c_opts' ``options'
    }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95
}
> _____ end _get_diopts.GetDio
> pts _____
    - if ``name2' == "" {
    = if '' == "" {
    - GetDiopts DUPS, `options'
    = GetDiopts DUPS,
    }
}
> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels
> NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NO
> OMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sfor
> mat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(
> string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels A
> LLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells
> EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat

```

```

> (string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passth
> ru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passth
> ru) NOABBREV ABBREV *)
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``"opts" != "" {
    = while `"" != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``"opts" != "" {
    = while `"" != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`baselevels' `nobaselevels'"

```

```

= opts_exclusive " "
> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> ----- end opts_exclus
> ive
    - opts_exclusive ``emptycells' `noemptycells'
    = opts_exclusive " "
> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> ----- end opts_exclus
> ive
    - opts_exclusive ``fvlabel' `nofvlabel'
    = opts_exclusive " "
> ----- begin opts_exclus
> ive

```

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `''` != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `''` != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts

```

```

- local n 0
- while ``opts'' != "" {
= while `'' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
  local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
}

```

```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

```

```

> ----- end opts_exclus
> ive -----
- local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
}
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
}
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
}
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
}
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
}
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'

```



```

    if fmtwidth(`""`cformat'""') > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat `""`cformat'""'
    local cformat `""cformat(`cformat')""'
    }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth(`""`sformat'""') > 8 {
    local sformat "%8.2f"
    di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat `""`sformat'""'
    local sformat `""sformat(`sformat')""'
    }
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`""`pformat'""') > 5 {
    local pformat "%5.3f"
    di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat `""`pformat'""'
    local pformat `""pformat(`pformat')""'
    }
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
    }
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
    }
- Wraon , `fvwraon'
= Wraon ,

```

```

> _____ begin _get_diopts.Wra
> pon _____

```

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
    di as err "invalid fvwrapon() option;"
    syntax [, W0rd WIdth]
    exit 198
    }

```

```

- opts_exclusive "`word' `width'" fwrapon
= opts_exclusive " " fwrapon

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- local fwrapon `word' `width'
= local fwrapon
- if `:length local fwrapon' {
= if 0 {
  c_local fwrapon fwrapon(`fwrapon')
}

```

```

> ----- end _get_diopts.Wra
> pon -----
- if "`fwrap'" != "" {
= if "" != "" {
  FVWrap, `fwrap'
}
- c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevel
> s' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend
> ' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fwr
> ap' `fwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
= c_local DUPS
- if `K' == 2 {
= if 1 == 2 {
  c_local `c_opts' ``options'
}
- sreturn local coding `coding'
= sreturn local coding
- sreturn local versus `versus'

```

```

= sreturn local versus
- sreturn local compare `compare'
= sreturn local compare
- sreturn local level `level'
= sreturn local level 95

```

```

> _____ end _get_diopts.GetDio
> pts _____
- }
- else {
  GetDiopts DUPS options, `options'
  c_local `name2' ``options'
}
- local DUPS : list DUPS - DEFAULT
- gettoken DUPS : DUPS
- if ``DUPS' != "" {
= if ``' != "" {
  if (strpos(`DUPS', "(")) {
    gettoken DUPS : DUPS, parse("(")
    local DUPS `DUPS'()'
  }
  di as err "duplicate {bf:`DUPS'} option not allowed"
  exit 198
}
- sreturn clear
- foreach sname of local snames {
- sreturn local `sname' = ``S_`sname'
= sreturn local level = `95'
- }
- sreturn local `sname' = ``S_`sname'
= sreturn local method = `noadjust'
- }
- sreturn local `sname' = ``S_`sname'
= sreturn local options = `level(95.00) fvwrap(1)'
- }

```

```

> _____ end _get_dio
> pts _____
- if !`:length local first' {
= if !0 {
- local first showeqns
- }
- if `neq' < 1 {
= if -1 < 1 {
- _ms_eq_info
- local neqopt neq(`r(k_eq)')

```

```

= local neqopt neq(1)
- }
- else {
  local neqopt neq(`neq`)
}
- _coef_table, nodiparm nocnsreport noeqcheck eformall `eform' `first' `
> neqopt' `plus' `beta' `mcopt' `diopts'
= _coef_table, nodiparm nocnsreport noeqcheck eformall showeqns neq(1)
> mcompare(noadjust ) fvwrap(1)

-----
> ----- begin _coef_ta
> ble -----
- version 11
- local vv : di "version " string(max(11,_caller())) ", missing:"
- if (!c(noisily) & c(coeftabresults) == "off") {
  exit
}
- _check_eclass
- syntax [, BMATrix(passthru) VMATrix(passthru) * ]
- if "`e(b)'" == "" & "`e(V)'" == "" & "`bmatrix'`vmatrix'"==" {
= if "matrix" == "" & "matrix" == "" & ""==" {
  exit
}
- local mc_cmds contrast margins pwcompare pwmean
- local cmd "`e(cmd)'"
= local cmd "regress"
- local keepmc : list cmd in mc_cmds
- if inlist("`cmd'", "pwcompare", "pwmean") {
= if inlist("regress", "pwcompare", "pwmean") {
  local groups GROUPS
}
- if "`cmd'" == "regress" {
= if "regress" == "regress" {
- local beta Beta
- }
- if "`cmd'" == "gsem" {
= if "regress" == "gsem" {
  local fvignore fvignore(int 0)
  local flignore flignore
}
- if "`cmd'" == "sem" {
= if "regress" == "sem" {
  local standardized STANDARDIZED
  local showginvariant SHOWGINvariant
  local nolabel NOLABel LABel NOFVLABel FVLABel
  local nofootnote NOFOOTnote

```

```

        local wrap wrap(numlist max=1) fvwrap(passthru)
    }
    - if "`e(mi)'"=="mi" {
= if ""=="mi" {
    local dftable DFTable
    local dfonly DFONLY
    local noclustreport NOCLUSTReport
    local pisematrix PISEMATrix(string)
}
    - syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(string)
> DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string) PMATrix
> (string) TSMATrix(string) ROWCFormat(string) ROWPFormat(string) ROWSFormat(s
> tring) NOROWCI MMATrix(string) MVMATrix(string) MEMATrix(string) BSTDMATrix(
> string) CNSMATrix(string) PCLASSMATrix(string) Level(cilevel) prefix(name) c
> nszero(string) suffix(name) OFFSETlist(string asis) `beta' `standardized' NO
> CI NOPValues `dftable' `dfonly' dfci DFPValues dfmissing `groups' COEFLegend
> selegend `fvignore' `flignore' `showginvariant' `nolabel' `nofootnote' `wra
> p' sort `pisematrix' depname(string) COEFTitle(string) coeftitle2(string) pt
> itle(string) cititle(string) NOMCLEGend noCNSReport FULLCNSReport `noclustre
> port' cformat(passthru) sformat(passthru) pformat(passthru) NOFirst First SH
> OWEQns neq(integer -1) NODIPARM NOTEST SEPARATOR(integer 0) NOSKIP OFFSETONL
> Y1 Plus NOEQCHECK EFORMALL CITYPE(string) eqselect(string) cidisjoint noEFOR
> MNOTE * ]
    = syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(string)
> DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string) PMATrix
> (string) TSMATrix(string) ROWCFormat(string) ROWPFormat(string) ROWSFormat(s
> tring) NOROWCI MMATrix(string) MVMATrix(string) MEMATrix(string) BSTDMATrix(
> string) CNSMATrix(string) PCLASSMATrix(string) Level(cilevel) prefix(name) c
> nszero(string) suffix(name) OFFSETlist(string asis) Beta NOCI NOPValues d
> fci DFPValues dfmissing COEFLegend selegend sort depname(string) COE
> FTitle(string) coeftitle2(string) ptitle(string) cititle(string) NOMCLEGend
> noCNSReport FULLCNSReport cformat(passthru) sformat(passthru) pformat(passt
> hru) NOFirst First SHOWEQns neq(integer -1) NODIPARM NOTEST SEPARATOR(intege
> r 0) NOSKIP OFFSETONLY1 Plus NOEQCHECK EFORMALL CITYPE(string) eqselect(stri
> ng) cidisjoint noEFORMNOTE * ]
    - if "`wrap'" != "" {
= if "" != "" {
    opts_exclusive `wrap(`wrap') `fvwrap'
    local fvwrap fvwrap(`wrap')
}
    - if "`nolabel'`label'" != "" {
= if "" != "" {
    opts_exclusive "`nolabel' `label'"
    opts_exclusive "`nofvlabel' `fvlabel'"
    opts_exclusive "`nolabel' `fvlabel'"
    opts_exclusive "`nofvlabel' `label'"

```

```

        if "`nolabel'" != "" {
            local fvlablel nofvlabel
        }
        else {
            local fvlablel fvlablel
        }
    }
    - _novce_other_mats, cimatrix("`cimatrix'") pmatrix("`pmatrix'") tsmat
> rix("`tsmatrix'") `noci' `nopvalues' `dfci' `dfpvalues' `cidisjoint'
    = _novce_other_mats, cimatrix("") pmatrix("") tsmatrix("")

_____  

> _____ begin _coef_table._novce_other_m
> ats _____
    - syntax [anything], [ CIMATrix(string) PMATrix(string) TSMATrix(str
> ing) NOCI NOPValues dfci DFPValues cidisjoint ]
    - if ("`pmatrix'"=="" & "`tsmatrix'"=="" & "`e(V)'"=="" & "`cimatrix
> '"!=" & "`noci'"!="") {
        = if ("'"=="" & "'"=="" & "matrix"=="" & '"!=" & '"!="") {
            sreturn local cimatrix "empt"
        }
        - if ("`pmatrix'"=="" & "`tsmatrix'"!=" & "`e(V)'"=="" & "`cimatrix
> '"==" & ("`noci'"!="|"`nopvalues'"!=")) {
            = if ("'"=="" & '"!=" & "matrix"=="" & '"==" & ("'"!="|'"!=")) {
                sreturn local noci "empt"
                sreturn local nopvalues "empt"
            }
            - if ("`pmatrix'"=="" & "`tsmatrix'"=="" & "`e(V)'"=="" & "`cimatrix
> '"!=" & "`noci'"!="") {
                = if ("'"=="" & "'"=="" & "matrix"=="" & '"!=" & '"!="") {
                    sreturn local cimatrix "empt"
                }
                - if ("`pmatrix'"!=" & "`tsmatrix'"=="" & "`e(V)'"=="" & "`cimatrix
> '"==" & "`nopvalues'"!="") {
                    = if ("'"!=" & "'"=="" & "matrix"=="" & '"==" & '"!="") {
                        sreturn local pmatrix "empt"
                    }
                    - if ("`pmatrix'"!=" & "`tsmatrix'"=="" & "`e(V)'"=="" & "`cimatrix
> '"==" & "`noci'"!="") {
                        = if ("'"!=" & "'"=="" & "matrix"=="" & '"==" & '"!="") {
                            sreturn local noci "empt"
                        }
                        - if ("`pmatrix'"!="") {
                            = if ("'"!="") {
                                tempname pmat invalid
                                capture matrix `pmat' = `pmatrix'
                                local rc = _rc

```

```

if (`rc') {
display as error "invalid {bf:pmatrix()}"
exit 198
}
else {
local k: rowsof `pmat'
if (`k'>1 | `k'==0) {
display as error "{bf:pmatrix()} should be a row vector"
exit 198
}
}
scalar `isvalid' = 1
mata: _is_in_0_1void("`pmat'", "`isvalid'")
if (`isvalid'==0) {
display as error "invalid {bf:pmatrix()}"
di as txt "{p 4 4 2}"
di as smcl as err "{bf:pmatrix()}"
di as smcl as err "should contain values inside"
di as smcl as err "the interval [0,1]."
di as smcl as err "{p_end}"
exit 198
}
}
- if ("`tsmatrix'"!="") {
= if ("!=") {
tempname tmat
capture matrix `tmat' = `tsmatrix'
local rc = _rc
if (`rc') {
display as error "invalid {bf:tsmatrix()}"
exit 198
}
else {
local k: rowsof `tmat'
if (`k'>1 | `k'==0) {
display as error "{bf:tsmatrix()} should be a row vector"
exit 198
}
}
}
- if ("`cimatix'"!="") {
= if ("!=") {
tempname cimat isvalid
capture matrix `cimat' = `cimatix'
local rc = _rc
if (`rc') {

```

```

display as error "invalid {bf:cimatrix()}"
exit 198
}
if ("`cidisjoint'"=="" & "`e(disjoint)'"=="") {
  scalar `isvalid' = 1
  mata: _is_in_ci("`ciamat'", "`isvalid'")
  if (`isvalid'==0) {
    display as error "invalid {bf:cimatrix()}"
    di as txt "{p 4 4 2}"
    di as smcl as err "{bf:cimatrix()}"
    di as smcl as err "lower limit should be"
    di as smcl as err "smaller than the upper"
    di as smcl as err "limit."
    di as smcl as err "{p_end}"
    exit 198
  }
}
}
}
- if ("`e(V)'"=="" & "`dfci'"!="" & "`pmatrx'"!="") {
= if ("matrix"=="" & ""!="" & ""!="") {
  opts_exclusive "pmatrx() `dfci'"
}
- if ("`e(V)'"=="" & "`dfci'"!="" & "`tsmatrx'"!="") {
= if ("matrix"=="" & ""!="" & ""!="") {
  opts_exclusive "tsmatrx() `dfci'"
}
- if ("`e(V)'"=="" & "`dfci'"!="" & "`cimatrix'"!="") {
= if ("matrix"=="" & ""!="" & ""!="") {
  opts_exclusive "cimatrix() `dfci'"
}
- if ("`e(V)'"=="" & "`dfpvalues'"!="" & "`pmatrx'"!="") {
= if ("matrix"=="" & ""!="" & ""!="") {
  opts_exclusive "pmatrx() `dfci'"
}
- if ("`e(V)'"=="" & "`dfpvalues'"!="" & "`tsmatrx'"!="") {
= if ("matrix"=="" & ""!="" & ""!="") {
  opts_exclusive "tsmatrx() `dfpvalues'"
}
- if ("`e(V)'"=="" & "`dfpvalues'"!="" & "`cimatrix'"!="") {
= if ("matrix"=="" & ""!="" & ""!="") {
  opts_exclusive "cimatrix() `dfpvalues'"
}
}

```

```
> _____ end _coef_table._novce_other_m
```

```
> ats _____
- if ("`s(cimatrix)'"=="empt") {
```



```

= if (""=="empt") {
  local cimatix ""
}
- if ("`s(pmatrix)""=="empt") {
= if (""=="empt") {
  local pmatrix ""
}
- if ("`s(noci)""=="empt") {
= if (""=="empt") {
  local noci ""
}
- if ("`s(nopvalues)""=="empt") {
= if (""=="empt") {
  local nopvalues ""
}
- if ("`e(V)""!=" & "`cidisjoint""!=") {
= if ("matrix"!=" & ""!=") {
  display in red "option {bf:cidisjoint} not allowed when e(V) is post
> ed"
  exit 198
}
- else local fvlabel `nofvlabel' `fvlabel'
= else local fvlabel
- local type `coeflegend' `selegend'
= local type
- opts_exclusive "`type' `standardized'"
= opts_exclusive " "

> _____ begin opts_exclus
> ive _____
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while "`opts'" != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit

> _____ end opts_exclus
> ive _____

```

```

- if (``rowmatrix'""=="" & ``norowci'""!="") {
= if (``'""=="" & '""!="") {
    di as err "{bf:norowci} requires {bf:rowmatrix()}"
    exit 198
}
- if (``dftable'""!="" & ``norowci'""!="") {
= if (``'""!="" & '""!="") {
    di as err "{bf:norowci} is not allowed with {bf:`dftable'}"
    exit 198
}
- if (``dfonly'""!="" & ``norowci'""!="") {
= if (``'""!="" & '""!="") {
    di as err "{bf:norowci} is not allowed with {bf:`dfonly'}"
    exit 198
}
- if (``noci'""!="" & ``norowci'""!="") {
= if (``'""!="" & '""!="") {
    di as err "{bf:norowci} is not allowed with {bf:`noci'}"
    exit 198
}
- if ``standardized'"" != "" & ``bstdmatrix'"" != "" {
= if "" != "" & "" != "" {
    local beta beta
    local standardized
}
- if `:length local type' == 0 {
= if 0 == 0 {
- local type `beta' `noci' `nopvalues' `dftable' `dfonly' `groups' `df
> ci' `dfpvalues'
    = local type
    - }
    - opts_exclusive ``type'
    = opts_exclusive ""
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'"" != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }

```

```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive
- opts_exclusive "`first' `nofirst'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive
- opts_exclusive "`first' `showeqns'"
= opts_exclusive " showeqns"

> ----- begin opts_exclus
> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts showeqns
- local n 0
- while ``opts' != "" {
= while `"showeqns" != "" {
  local ++n
  gettoken item`n' opts : opts, bind
= gettoken item1 opts : opts, bind
- }
- while ``opts' != "" {
= while `"' != "" {
  local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 1 < 2 {
    - exit
}
}
> ----- end opts_exclus
> ive -----
    - local cnsreport `cnsreport' `fullcnsreport'
= local cnsreport nocnsreport
    - opts_exclusive "`cnsreport'"
= opts_exclusive "nocnsreport"
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts nocnsreport
    - local n 0
    - while ```opts'"" != "" {
= while `"nocnsreport" != "" {
    - local ++n
    - gettoken item`n' opts : opts, bind
= gettoken item1 opts : opts, bind
    - }
    - while ```opts'"" != "" {
= while `"" != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 1 < 2 {
    - exit
}
}
> ----- end opts_exclus
> ive -----
    - if ```showeqns'"" != "" {
= if `"showeqns" != "" {
    - local nofirst nofirst
    - }
    - if ```ematrix'`noeqcheck'"" == "" {
= if `"noeqcheck" == "" {
        if ```e(error)'" == "matrix" {
            local ematrix e(error)
        }
    }
}

```

```

    }
    - _get_mcompare, `options'
    = _get_mcompare, mcompare(noadjust ) fvwrap(1)

```

```

> ----- begin _get_mcomp
> are -----
    - version 11
    - local cmd ``e(cmd)'''
    = local cmd ``regress'''
    - syntax [name(name=caller)] [, *]
    - local is_pwc = inlist("pwcompare", ``cmd'", ``caller'") | inlist("
> pwmean", ``cmd'", ``caller'")
    = local is_pwc = inlist("pwcompare", "regress", "") | inlist("pwmean
> ", "regress", "")
    - local is_marg = inlist("margins", ``cmd'", ``e(cmd2)'", ``caller'"
> )
    = local is_marg = inlist("margins", "regress", "", "")
    - local OPTIONS NOADJust BONferroni DUNCAn DUNNett SCHeffe SIDak SNK
> TUKey ADJustall
    - if `is_pwc' {
    = if 0 {
        syntax [name] [, `OPTIONS' MCOMPare(string) *]
    }
    - else {
    - syntax [name] [, MCOMPare(string) *]
    - local suboption mcompare()
    - }
    - sreturn clear
    - sreturn local options ``options'''
    = sreturn local options ``fvwrap(1)'''
    - if `is_pwc' {
    = if 0 {
        local METHOD `noadjust' `bonferroni' `duncan' `dunnett' `scheffe'
> `sidak' `snk' `tukey'
        local METHOD : list uniq METHOD
        opts_exclusive ``METHOD'''
        local ALL `adjustall'
        opts_exclusive ``noadjust' `ALL'''
    }
    - local 0 `", `mcompare'''
    = local 0 `", noadjust'''
    - capture syntax [, `OPTIONS']
    = capture syntax [, NOADJust BONferroni DUNCAn DUNNett SCHeffe SIDak
> SNK TUKey ADJustall]
    - if c(rc) {
        di as err "invalid mcompare() option;"

```

```

        di as err "method ``mcompare'' not allowed"
        error 198
    }
    - local METHOD `METHOD' `noadjust' `bonferroni' `duncan' `dunnett' `
> scheffe' `sidak' `snk' `tukey'
    = local METHOD noadjust
    - local METHOD : list uniq METHOD
    - local ALL `ALL' `adjustall'
    = local ALL
    - local ALL : list uniq ALL
    - opts_exclusive ``METHOD'' `suboption'
    = opts_exclusive "noadjust" mcompare()

```

```

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts noadjust
    - local n 0
    - while ``opts'' != "" {
    = while "noadjust" != "" {
    - local ++n
    - gettoken item`n' opts : opts, bind
    = gettoken item1 opts : opts, bind
    - }
    - while ``opts'' != "" {
    = while ``' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 1 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive
    - if ``METHOD'' == "" {
    = if "noadjust" == "" {
        if ``ALL'' != "" {
            di as err "multiple comparison method required with the adjustall
> option"
        exit 198
    }
    local METHOD noadjust
    local noadjust noadjust

```

```

    }
    - opts_exclusive "`ALL' `noadjust'" `suboption'
    = opts_exclusive " noadjust" mcompare()
  }
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts noadjust
    - local n 0
    - while ``opts'" != "" {
    = while `"noadjust'" != "" {
    - local ++n
    - gettoken item`n' opts : opts, bind
    = gettoken item1 opts : opts, bind
    - }
    - while ``opts'" != "" {
    = while `"' != "" {
      local ++n
      gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 1 < 2 {
    - exit
  }
}

> ----- end opts_exclus
> ive -----
    - local EXCLUDE duncan dunnett snk tukey
    - if `:list METHOD in EXCLUDE' {
    = if 0 {
      if `is_pwc' {
        local opt : copy local METHOD
      }
      else {
        local opt "mcompare(`METHOD')"
      }
      local cmdlist anova manova regress mvreg pwmean
      if "`cmd'" == "pwcompare" {
        local cmd ``e(cmd_est)'"
      }
      if `is_marg' {
        local cmd margins
      }
      if !`:list cmd in cmdlist' | !`is_pwc' {
        di as err `"method `opt' is not allowed with results from `cmd'"
      }
    }
  }

```

```

        exit 322
    }
    if ``e(prefix)'' == "svy" {
di as err ``method `opt' is not allowed with results using the svy
> prefix''
        exit 322
    }
    local vce ``e(vce)''
    if !inlist("`vce'", "", "ols") {
di as err ``method `opt' is not allowed with results using vce(`vc
> e')''
        exit 322
    }
}
- local EXCLUDE duncan dunnett snk tukey scheffe
- if `:list METHOD in EXCLUDE' {
= if 0 {
    if ""ALL"" != "" {
di as err ``option adjustall is not allowed with method `METHOD''
exit 198
    }
}
- sreturn local method ``METHOD''
= sreturn local method ``noadjust''
- sreturn local adjustall ``ALL''
= sreturn local adjustall ``''

> _____ end _get_mcomp
> are _____
    - local method ``s(method)''
    = local method ``noadjust''
    - local all ``s(adjustall)''
    = local all ``''
    - local options ``s(options)''
    = local options ``fvwrap(1)''
    - if ``method'' != "noadjust" {
    = if "noadjust" != "noadjust" {
        local keepmc 1
    }
    - opts_exclusive ``all' `groups''
    = opts_exclusive " "

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab

```



```

- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- if ``method' == "dunnett" {
= if "noadjust" == "dunnett" {
  opts_exclusive ``method' `groups'
}
- _get_diopts diopts options, `options' `fvwrap' `fvlabel'
= _get_diopts diopts options, fvwrap(1)

> ----- begin _get_dio
> pts -----
- version 11
- syntax namelist(max=2) [, *]
- gettoken name1 namelist : namelist
- gettoken name2 namelist : namelist
- GetDiopts diopts options, `options'
= GetDiopts diopts options, fvwrap(1)

> ----- begin _get_diopts.GetDio
> pts -----
- local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
- syntax namelist(max=2) [, `DIOPTS' *]
= syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
- opts_exclusive ``allbaselevels' `noallbaselevels'

```

```

= opts_exclusive " "
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`allbaselevels' `nbaselevels'"
    = opts_exclusive " "
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`baselevels' `nbaselevels'"
    = opts_exclusive " "
> _____ begin opts_exclus
> ive _____

```

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts

```

```

- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`omitted' `noomitted'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {

```

```

        - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`versus' `compare'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while `""opts'" != "" {
    = while `"" != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`abbrev' `noabbrev'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while `""opts'" != "" {
    = while `"" != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels

```

```

- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
    local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
    local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
    }
    di "{txt}note: invalid cformat(), using default"
  }
}

```



```

    sreturn local cformat ``cformat'''
    local cformat `cformat(`cformat')''
}
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth(`sformat') > 8 {
        local sformat "%8.2f"
        di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat ``sformat'''
    local sformat `sformat(`sformat')''
}
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`pformat') > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat ``pformat'''
    local pformat `pformat(`pformat')''
}
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraupon , `fvwraupon'
= Wraupon ,

```

> _____ begin _get_diopts.Wra

> pon _____

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
    di as err "invalid fvwraupon() option;"
    syntax [, W0rd WIdth]
    exit 198
}
- opts_exclusive ``word' `width'" fvwraupon
= opts_exclusive " " fvwraupon

```

> _____ begin opts_exclus

```

> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while `"'opts'" != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }

> ----- end _get_diopts.Wra
> pon
    - if "`fvwrap'" != "" {
    = if "fvwrap(1)" != "" {
    - FVWrap, `fvwrap'
    = FVWrap, fvwrap(1)

> ----- begin _get_diopts.FVW
> rap
    - syntax, fvwrap(integer)
    - if `fvwrap' < 0 {
    = if 1 < 0 {
        di as err "{p}invalid option {bf:fvwrap(`fvwrap')}"; " "nonnega
> tive integer required{p_end}"
        exit 198
    }

> ----- end _get_diopts.FVW
> rap
    - }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege

```

```

> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
      = c_local diopts                                     fvwrap(1)
      - if `K' == 2 {
      = if 2 == 2 {
      - c_local `c_opts' ``options''
      = c_local options `''
      - }
      - sreturn local coding `coding'
      = sreturn local coding
      - sreturn local versus `versus'
      = sreturn local versus
      - sreturn local compare `compare'
      = sreturn local compare
      - sreturn local level `level'
      = sreturn local level 95

```

```

> _____ end _get_diopts.GetDio
> pts _____
      - c_local `name1' ``diopts''
      = c_local diopts `fvwrap(1)'
      - local snames : s(macros)
      - foreach sname of local snames {
      - local S_`sname' = s(`sname')
      = local S_level = s(level)
      - }
      - local S_`sname' = s(`sname')
      = local S_method = s(method)
      - }
      - local S_`sname' = s(`sname')
      = local S_options = s(options)
      - }
      - sreturn clear
      - GetDiopts DEFAULT

```

```

> _____ begin _get_diopts.GetDio
> pts _____
      - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
      - syntax namelist(max=2) [, `DIOPTS' *]
      = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell

```

```

> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *)
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `'''' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `'''' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____

```

```

- opts_exclusive "`baselevels' `nobaselevels'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus

```

```

> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

>
> end opts_exclus
> ive
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "

>
> begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

>
> end opts_exclus
> ive
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "

>
> begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'

```

```

= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive ``cnsreport' `fullcnsreport'
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive ``coeflegend' `selegend'
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {

```

```

        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'` != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'` != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind

```



```

        }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
    }
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`versus' `compare'"
    = opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`abbrev' `noabbrev'"
    = opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}

```

```

> ----- end opts_exclus
> ive -----
- local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
    local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
    local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {

```

```

confirm numeric format `cformat'
if fmtwidth("`cformat'") > 9 {
local cformat "%9.0g"
di "{txt}note: invalid cformat(), using default"
}
sreturn local cformat "`cformat'"
local cformat `cformat(`cformat')"'
}
- if `:length local sformat' {
= if 0 {
confirm numeric format `sformat'
if fmtwidth("`sformat'") > 8 {
local sformat "%8.2f"
di "{txt}note: invalid sformat(), using default"
}
sreturn local sformat "`sformat'"
local sformat `sformat(`sformat')"'
}
- if `:length local pformat' {
= if 0 {
confirm numeric format `pformat'
if fmtwidth("`pformat'") > 5 {
local pformat "%5.3f"
di "{txt}note: invalid pformat(), using default"
}
sreturn local pformat "`pformat'"
local pformat `pformat(`pformat')"'
}
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
local levelopt level(`level')
}
- Wraon , `fvwraon'
= Wraon ,

```

```

> _____ begin _get_diopts.Wra
> pon _____

```

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
di as err "invalid fvwrapon() option;"
syntax [, W0rd WIdth]
exit 198

```

```

    }
    - opts_exclusive "`word' `width'" fvwrapon
    = opts_exclusive " " fvwrapon
}
> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
        - exit
    }
}
> ----- end opts_exclus
> ive
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }
}
> ----- end _get_diopts.Wra
> pon
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local DEFAULT
    - if `K' == 2 {
    = if 1 == 2 {
        c_local `c_opts' ``options'
    }
    - sreturn local coding `coding'
    = sreturn local coding

```

```

- sreturn local versus `versus'
= sreturn local versus
- sreturn local compare `compare'
= sreturn local compare
- sreturn local level `level'
= sreturn local level 95

```

```

> ----- end _get_diopts.GetDio
> pts -----
- if ``name2''' == "" {
= if `"options"' == "" {
  GetDiopts DUPS, `options'
}
- else {
- GetDiopts DUPS options, `options'
= GetDiopts DUPS options,

```

```

> ----- begin _get_diopts.GetDio
> pts -----
- local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> V ABBREV
- syntax namelist(max=2) [, `DIOPTS' *]
= syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
- opts_exclusive "`allbaselevels' `noallbaselevels'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts''' != "" {
= while `''' != "" {
  local ++n
  gettoken item`n' opts : opts, bind

```

```

    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`allbaselevels' `nobaselevels'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ``opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels' `nobaselevels'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ``opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`omitted' `noomitted'"

```

```

= opts_exclusive " "
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "
> _____ begin opts_exclus
> ive _____

```



```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`coeflegend' `selegend'"
    = opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    }

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts

```

```

- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {

```

```

= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
- if `n` < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`abbrev` `noabbrev`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while ``opts`` != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
    - if `n` < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels` `noallbaselevels`
= local allbaselevels
    - local baselevels `baselevels` `nobaselevels`
= local baselevels
    - local emptycells `emptycells` `noemptycells`
= local emptycells
    - local omitted `omitted` `noomitted`
= local omitted
    - local lstretch `lstretch` `nolstretch`
= local lstretch
    - local fvlabel `fvlabel` `nofvlabel`
= local fvlabel
    - local abbrev `abbrev` `noabbrev`
= local abbrev
    - if "`allbaselevels` `baselevels`" == "" {

```

```

= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
}
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
}
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
}
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
}
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
}
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth("`cformat'") > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat "`cformat'"
  local cformat `cformat(`cformat')'
}
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth("`sformat'") > 8 {
    local sformat "%8.2f"
    di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat "`sformat'"
  local sformat `sformat(`sformat')'
}
}

```

```

- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`""pformat'""') > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat `""pformat'""'
    local pformat `pformat(`pformat')"'
}
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraon , `fvwraon'
= Wraon ,

```

> _____ begin _get_diopts.Wra

> pon _____

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
    di as err "invalid fvwrapon() option;"
    syntax [, W0rd WIdth]
    exit 198
}
- opts_exclusive ""`word' `width'"" fvwrapon
= opts_exclusive " " fvwrapon

```

> _____ begin opts_exclus

> ive _____

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while `""opts'"" != "" {
= while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {

```

```

        - exit
    }
}
> ----- end opts_exclus
> ive
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }
}
> ----- end _get_diopts.Wra
> pon
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local DUPS
    - if `K' == 2 {
    = if 2 == 2 {
        - c_local `c_opts' ``options''
        = c_local options `''
        - }
        - sreturn local coding `coding'
        = sreturn local coding
        - sreturn local versus `versus'
        = sreturn local versus
        - sreturn local compare `compare'
        = sreturn local compare
        - sreturn local level `level'
        = sreturn local level 95
    }
}
> ----- end _get_diopts.GetDio
> pts
    - c_local `name2' ``options''
    = c_local options `''
    - }
    - local DUPS : list DUPS - DEFAULT
    - gettoken DUPS : DUPS
    - if ``DUPS'' != "" {
    = if `'' != "" {
        if (strpos(`DUPS', "(")) {

```

```

    gettoken DUPS : DUPS, parse("(")
    local DUPS `""`DUPS'()'""
  }
  di as err "duplicate {bf:`DUPS'}` option not allowed"
  exit 198
}
- sreturn clear
- foreach sname of local snames {
- sreturn local `sname' = `""`S_`sname'""'
= sreturn local level = `95'
- }
- sreturn local `sname' = `""`S_`sname'""'
= sreturn local method = `noadjust'
- }
- sreturn local `sname' = `""`S_`sname'""'
= sreturn local options = `fvwrap(1)'
- }
}

> _____ end _get_dio
> pts _____
- local legend coeflegend selegend
- local legend : list legend & diopts
- local diopts : list diopts - legend
- local lstretch lstretch nolstretch
- local lstretch : list lstretch & diopts
- local diopts : list diopts - lstretch
- local markdown markdown
- local markdown : list markdown & diopts
- local diopts : list diopts - markdown
- _get_diopts ignore, `diopts' `cformat' `sformat' `pformat'
= _get_diopts ignore, fvwrap(1)
}

> _____ begin _get_dio
> pts _____
- version 11
- syntax namelist(max=2) [, *]
- gettoken name1 namelist : namelist
- gettoken name2 namelist : namelist
- GetDiopts diopts options, `options'
= GetDiopts diopts options, fvwrap(1)
}

> _____ begin _get_diopts.GetDio
> pts _____
- local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEgend cformat(string) sf

```

```

> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *)
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit


---


> 

---

 end opts_exclus
> ive 

---


    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }

```



```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`baselevels' `nobaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `""' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `""' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while `""opts'" != "" {
    = while `"" != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while `""opts'" != "" {
    = while `"" != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`coeflegend' `selegend'"
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'

```

```

= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`versus' `compare'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {

```

```

        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels
    - local emptycells `emptycells' `noemptycells'
    = local emptycells
    - local omitted `omitted' `noomitted'
    = local omitted
    - local lstretch `lstretch' `nolstretch'
    = local lstretch
    - local fvlabel `fvlabel' `nofvlabel'
    = local fvlabel
    - local abbrev `abbrev' `noabbrev'
    = local abbrev
    - if "`allbaselevels'`baselevels'" == "" {
    = if "" == "" {
    - if c(showbaselevels) == "all" {
        local allbaselevels allbaselevels
    }
    - else if c(showbaselevels) == "on" {
        local baselevels baselevels
    }
    - }
    - if "`emptycells'" == "" {
    = if "" == "" {
    - if c(showemptycells) == "off" {
        local emptycells noemptycells
    }
    - }
    - if "`omitted'" == "" {
    = if "" == "" {
    - if c(showomitted) == "off" {
        local omitted noomitted
    }
    - }
    - if "`lstretch'" == "" {
    = if "" == "" {

```

```

- if c(lstretch) == "off" {
  local lstretch nolstretch
}
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth("`cformat'") > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat "`cformat'"
  local cformat `cformat(`cformat')'
}
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth("`sformat'") > 8 {
    local sformat "%8.2f"
    di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat "`sformat'"
  local sformat `sformat(`sformat')'
}
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth("`pformat'") > 5 {
    local pformat "%5.3f"
    di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat "`pformat'"
  local pformat `pformat(`pformat')'
}
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
  local levelopt level(`level')
}
- Wraon , `fvwraon'
= Wraon ,

```

> _____ begin _get_diopts.Wra

```

> pon
    - capture syntax [, WOrd WIdth]
    - if c(rc) {
      di as err "invalid fwwrapon() option;"
      syntax [, WOrd WIdth]
      exit 198
    }
    - opts_exclusive "`word' `width'" fwwrapon
    = opts_exclusive " " fwwrapon

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
      local ++n
      gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
      - exit

> ----- end opts_exclus
> ive
    - local fwwrapon `word' `width'
    = local fwwrapon
    - if `:length local fwwrapon' {
    = if 0 {
      c_local fwwrapon fwwrapon(`fwwrapon')
    }

> ----- end _get_diopts.Wra
> pon
    - if "`fwwrap'" != "" {
    = if "fwwrap(1)" != "" {
      - FWWrap, `fwwrap'
    = FWWrap, fwwrap(1)

> ----- begin _get_diopts.FW
> rap
    - syntax, fwwrap(integer)
    - if `fwwrap' < 0 {

```



```

        = if 1 < 0 {
            di as err "{p}invalid option {bf:fvwrap(`fvwrap')}); " "nonnega
> tive integer required{p_end}"
            exit 198
        }
    }
}

> _____ end _get_diopts.FVW
> rap _____
    - }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local diopts          fvwrap(1)
    - if `K' == 2 {
    = if 2 == 2 {
    - c_local `c_opts' ``options''
    = c_local options `''
    - }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95
}

> _____ end _get_diopts.GetDio
> pts _____
    - c_local `name1' ``diopts''
    = c_local ignore ``fvwrap(1)''
    - local snames : s(macros)
    - foreach sname of local snames {
    - local S_`sname' = s(`sname')
    = local S_level = s(level)
    - }
    - local S_`sname' = s(`sname')
    = local S_options = s(options)
    - }
    - local S_`sname' = s(`sname')
    = local S_method = s(method)
    - }
    - sreturn clear
    - GetDiopts DEFAULT
}

```

```

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "
> _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> _____ end opts_exclus
> _____
> ive _____
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "
> _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0

```

```

- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
  - opts_exclusive "`baselevels' `nobaselevels'"
  = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while ``opts'' != "" {
  = while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit

```

```

> ----- end opts_exclus
> ive -----
  - opts_exclusive "`emptycells' `noemptycells'"
  = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while ``opts'' != "" {
  = while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind

```

```

        }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
    }
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`coeflegend' `selegend'"

```

```

= opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit


---


> 

---

 end opts_exclus
> ive 

---


    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit


---


> 

---

 end opts_exclus
> ive 

---


    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
    = opts_exclusive " "


---



```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`versus' `compare'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`abbrev' `noabbrev'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab

```

```

- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
    local allbaselevels allbaselevels
    }
- else if c(showbaselevels) == "on" {
    local baselevels baselevels
    }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
    }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {

```



```

    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth("`cformat'") > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat "`cformat'"
  local cformat `cformat(`cformat')'
}
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth("`sformat'") > 8 {
    local sformat "%8.2f"
    di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat "`sformat'"
  local sformat `sformat(`sformat')'
}
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth("`pformat'") > 5 {
    local pformat "%5.3f"
    di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat "`pformat'"
  local pformat `pformat(`pformat')'
}
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS'
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
  local levelopt level(`level')

```

```

    }
    - Wrapon , `fvwrapon'
    = Wrapon ,

```

```

> ----- begin _get_diopts.Wra
> pon
    - capture syntax [, W0rd WIdth]
    - if c(rc) {
        di as err "invalid fvwrapon() option;"
        syntax [, W0rd WIdth]
        exit 198
    }
    - opts_exclusive "`word' `width'" fvwrapon
    = opts_exclusive " " fvwrapon

```

```

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'"" != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
        - exit
    }

```

```

> ----- end opts_exclus
> ive
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }

```

```

> ----- end _get_diopts.Wra
> pon
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }

```

```

        - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
        = c_local DEFAULT
        - if `K' == 2 {
        = if 1 == 2 {
            c_local `c_opts' ``options''
        }
        - sreturn local coding `coding'
        = sreturn local coding
        - sreturn local versus `versus'
        = sreturn local versus
        - sreturn local compare `compare'
        = sreturn local compare
        - sreturn local level `level'
        = sreturn local level 95
    }
}

> _____ end _get_diopts.GetDio
> pts _____
        - if ``name2'' == "" {
        = if ``'' == "" {
        - GetDiopts DUPS, `options'
        = GetDiopts DUPS,
    }
}

> _____ begin _get_diopts.GetDio
> pts _____
        - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITtd OMITtd NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
        - syntax namelist(max=2) [, `DIOPTS' *]
        = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITtd OMITtd NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
        - opts_exclusive ``allbaselevels' `noallbaselevels''
        = opts_exclusive " "
    }
}

> _____ begin opts_exclus
> ive _____
        - version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`allbaselevels' `nbaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`baselevels' `nbaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0

```

```

- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}

```

```

        }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
    }
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`coeflegend' `selegend'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`noci' `nopvalues'"

```

```

= opts_exclusive " "
> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
    = opts_exclusive " "

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive
    - opts_exclusive "`versus' `compare'"
    = opts_exclusive " "

```



```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`abbrev' `noabbrev'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels
    - local emptycells `emptycells' `noemptycells'
    = local emptycells
    - local omitted `omitted' `noomitted'

```

```

= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
}
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
}
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
}
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
}
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
}
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth("`cformat'") > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat "`cformat'"
  local cformat `cformat(`cformat')'
}
- if `:length local sformat' {
= if 0 {

```

```

confirm numeric format `sformat'
if fmtwidth("`sformat'") > 8 {
local sformat "%8.2f"
di "{txt}note: invalid sformat(), using default"
}
sreturn local sformat "`sformat'"
local sformat `sformat(`sformat')'
}
- if `:length local pformat' {
= if 0 {
confirm numeric format `pformat'
if fmtwidth("`pformat'") > 5 {
local pformat "%5.3f"
di "{txt}note: invalid pformat(), using default"
}
sreturn local pformat "`pformat'"
local pformat `pformat(`pformat')'
}
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
local levelopt level(`level')
}
- Wrapon , `fvwrapon'
= Wrapon ,

```

```

> ----- begin _get_diopts.Wra
> pon -----

```

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
di as err "invalid fvwrapon() option;"
syntax [, W0rd WIdth]
exit 198
}
- opts_exclusive "`word' `width'" fvwrapon
= opts_exclusive " " fvwrapon

```

```

> ----- begin opts_exclus
> ive -----

```

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts

```

```

        - local n 0
        - while ``opts'' != "" {
= while `'' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
        }
        - if `n' < 2 {
= if 0 < 2 {
        - exit
    }
}

> _____ end opts_exclus
> ive _____
        - local fvwrapon `word' `width'
= local fvwrapon
        - if `:length local fvwrapon' {
= if 0 {
            c_local fvwrapon fvwrapon(`fvwrapon')
        }
    }

> _____ end _get_diopts.Wra
> pon _____
        - if ``fvwrap'' != "" {
= if "" != "" {
            FVWrap, `fvwrap'
        }
        - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
        = c_local DUPS
        - if `K' == 2 {
= if 1 == 2 {
            c_local `c_opts' ``options''
        }
        - sreturn local coding `coding'
= sreturn local coding
        - sreturn local versus `versus'
= sreturn local versus
        - sreturn local compare `compare'
= sreturn local compare
        - sreturn local level `level'
= sreturn local level 95
    }

> _____ end _get_diopts.GetDio
> pts _____
        - }

```

```

- else {
  GetDiopts DUPS options, `options'
  c_local `name2' ``options'
}
- local DUPS : list DUPS - DEFAULT
- gettoken DUPS : DUPS
- if ``DUPS' != "" {
= if `"' != "" {
  if (strpos(`DUPS', "(") {
    gettoken DUPS : DUPS, parse("(")
    local DUPS `DUPS'()'
  }
  di as err "duplicate {bf:`DUPS'} option not allowed"
  exit 198
}
- sreturn clear
- foreach sname of local snames {
- sreturn local `sname' = ``S_`sname'
= sreturn local level = `95'
- }
- sreturn local `sname' = ``S_`sname'
= sreturn local options = `fvwrap(1)'
- }
- sreturn local `sname' = ``S_`sname'
= sreturn local method = `noadjust'
- }

```

> _____ end _get_dio

> pts _____

```

- local cformat ``s(cformat)'
= local cformat `"'
- local sformat ``s(sformat)'
= local sformat `"'
- local pformat ``s(pformat)'
= local pformat `"'
- _get_eformopts , eformopts(`options') allowed(__all__) soptions
= _get_eformopts , eformopts() allowed(__all__) soptions

```

> _____ begin _get_eformo

> pts _____

```

- version 8.0
- syntax [, eformopts(string asis) soptions ALLOWed(string) ]
- local 0 , `eformopts'
= local 0 ,
- local EFALL NOHR hr NOSHR shr or IRr RRr tr TRatio
- if ``soptions' != "" {

```

```

= if "soptions" != "" {
- syntax [, EForm1(passthru) EForm `EFALL' * ]
= syntax [, EForm1(passthru) EForm NOHR hr NOSHR shr or IRr RRr tr T
> Ratio * ]
- local opts ``options'
= local opts `''
- local 0 , `eform1' `eform' `nohr' `hr' `noshr' `shr' `or' `irr' `r
> rr' `tr' `tratio'
= local 0 ,
- }
- if "`allowed'" == "__all__" {
= if "__all__" == "__all__" {
- local allowed `EFALL'
= local allowed NOHR hr NOSHR shr or IRr RRr tr TRatio
- }
- foreach ef of local allowed {
- capture confirm name `ef'
= capture confirm name NOHR
- if _rc {
di as err "`ef' is not a valid name"
exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr
- }
- capture confirm name `ef'
= capture confirm name hr
- if _rc {
di as err "`ef' is not a valid name"
exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr
- }
- capture confirm name `ef'
= capture confirm name NOSHR
- if _rc {
di as err "`ef' is not a valid name"
exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr
- }
- capture confirm name `ef'
= capture confirm name shr
- if _rc {

```

```

    di as err "`ef' is not a valid name"
    exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr
- }
- capture confirm name `ef'
= capture confirm name or
- if _rc {
    di as err "`ef' is not a valid name"
    exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or
- }
- capture confirm name `ef'
= capture confirm name IRr
- if _rc {
    di as err "`ef' is not a valid name"
    exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr
- }
- capture confirm name `ef'
= capture confirm name RRr
- if _rc {
    di as err "`ef' is not a valid name"
    exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr rrr
- }
- capture confirm name `ef'
= capture confirm name tr
- if _rc {
    di as err "`ef' is not a valid name"
    exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr rrr tr
- }
- capture confirm name `ef'
= capture confirm name TRatio
- if _rc {
    di as err "`ef' is not a valid name"

```

```

        exit 198
    }
    - local efopts `efopts' `=lower("`ef'")'
    = local efopts nohr hr noshr shr or irr rrr tr tratio
    - }
    - local efopts : list uniq efopts
    - syntax [, EForm1(string) EForm `allowed' ]
    = syntax [, EForm1(string) EForm NOHR hr NOSHR shr or IRr RRr tr TRa
> tio ]
    - foreach ef of local efopts {
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - if ```eform1''`'=="Odds ratio" {
    = if ```eform1''`'=="Odds ratio" {
        local eform_cons_ti = "Odds"
        local eform_cons_note = "odds ratios"
    }
    - else if ```eform1''`'=="Haz. ratio" {
    = else if ```eform1''`'=="Haz. ratio" {
        local eform_cons_ti = "Hazard"
        local eform_cons_note = "hazard ratios"

```



```

}
- else if ``eform1''=="Time ratio" {
= else if ``'=='=="Time ratio" {
  local eform_cons_ti = "Time"
  local eform_cons_note = "time ratios"
}
- else if ``eform1''=="IRR" {
= else if ``'=='=="IRR" {
  local eform_cons_ti = "Inc. rate"
  local eform_cons_note = "incidence-rate ratios"
  local eform_cons_ti2 = "incidence rate"
}
- else if ``eform1''=="Risk ratio" {
= else if ``'=='=="Risk ratio" {
  local eform_cons_ti = "Risk"
  local eform_cons_note = "risk ratios"
}
- else if ``eform1''=="Hlth ratio" {
= else if ``'=='=="Hlth ratio" {
  local eform_cons_ti = "Health"
  local eform_cons_note = "health ratios"
}
- local k : list sizeof eform
- if `k' {
= if 0 {
  opts_exclusive ``eform'
  if `:length local eform1' {
    opts_exclusive "eform()" `eform'
  }
}
- if `k' {
= if 0 {
  if ("`eform'"=="eform") local eform1 = "exp(b)"
  else if ("`eform'"=="hr") {
    local eform1 = "Haz. ratio"
    local eform_cons_ti = "Hazard"
    local eform_cons_note = "hazard ratios"
  }
  else if ("`eform'"=="shr") {
    local eform1 = "SHR"
    local eform_cons_ti = "Subhazard"
    local eform_cons_note = "subhazard ratios"
  }
  else if ("`eform'"=="tr") {
    local eform1 = "Time ratio"
    local eform_cons_ti = "Time"

```

```

    local eform_cons_note = "time ratios"
  }
  else if ("`eform'"=="tratio") {
    local eform1 = "Time ratio"
    local eform_cons_ti = "Time"
    local eform_cons_note = "time ratios"
  }
  else if ("`eform'"=="or") {
    local eform1 = "Odds ratio"
    if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cmd)'"==
> "cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
      local eform_cons_ti = "Rel. risk"
      local eform_cons_note = "relative-risk ratios"
      local eform_cons_ti2 = "relative risk"
    }
    else {
      local eform_cons_ti = "Odds"
      local eform_cons_note = "odds ratios"
    }
  }
  else if ("`eform'"=="irr") {
    local eform1 = "IRR"
    local eform_cons_ti = "Inc. rate"
    local eform_cons_note = "incidence-rate ratios"
    local eform_cons_ti2 = "incidence rate"
  }
  else if ("`eform'"=="rrr") {
    local eform1 = "RRR"
    local eform_cons_ti = "Rel. risk"
    local eform_cons_note = "relative-risk ratios"
    local eform_cons_ti2 = "relative risk"
  }
  else if ("`eform'"!="nohr") & ("`eform'"!="noshr") {
    local eform1 = upper("`eform'")
  }
}

- sreturn clear
- sreturn local options ```opts'''
= sreturn local options `'''
- sreturn local opt `eform'
= sreturn local opt
- sreturn local str `eform1'
= sreturn local str
- if ```eform1''' != "" {
= if `''' != "" {
  sreturn local eform eform("`eform1'")

```

```

    }
    - else sreturn local eform ""
    - sreturn local eform_cons_ti `eform_cons_ti'
    = sreturn local eform_cons_ti
    - sreturn local eform_cons_note `eform_cons_note'
    = sreturn local eform_cons_note
    - sreturn local eform_cons_ti2 `eform_cons_ti2'
    = sreturn local eform_cons_ti2
  }
  _____ end _get_eformo
> pts _____
    - local tr_item = ``s(eform_cons_note)'''
    = local tr_item = `'''
    - if inlist("`bmatrix'", "", "e(b)") & "`e(k_eform)'" == "0" {
    = if inlist("", "", "e(b)") & "" == "0" {
      local eform
    }
    - else local eform ``s(str)'''
    = else local eform `'''
    - local eform_cons_ti ``s(eform_cons_ti)'''
    = local eform_cons_ti `'''
    - local eform_cons_ti2 ``s(eform_cons_ti2)'''
    = local eform_cons_ti2 `'''
    - if (`e(consonly)''!="1" | ``eform_cons_ti'')=="" ) {
    = if (""!="1" | `''')=="" ) {
      - local eformdi ``s(str)'''
      = local eformdi `'''
    }
    - else {
      local eformdi ``eform_cons_ti'''
      local tr_item = cond(missing("`eform_cons_ti2'"), strlower("`eform_
> cons_ti''), ``eform_cons_ti2''))
    }
    - local coefttl = cond("`eform'')==`'', ``coeftitle'', ``eformdi'
> '')
    = local coefttl = cond(`''==`'', `'', `')
    - local options ``s(options)'''
    = local options `'''
    - _get_diparmopts, diparmopts(`options') level(`level')
    = _get_diparmopts, diparmopts() level(95)
  }
  _____ begin _get_diparmo
> pts _____
    - if _caller() < 8.2 {
      _get_diparmopts_8 `0'
      exit
    }

```

```

    }
    - version 9
    - local version : di "version " string(_caller()) ":"
    - syntax [, diparmopts(string asis) EXECute soptions bottom plus SYN
> TAXonly * ]
    - local goptions `options'
    = local goptions level(95)
    - SpliceGlobals junk , `goptions'
    = SpliceGlobals junk , level(95)

```

```

> _____ begin _get_diparmopts.SpliceGlob
> als _____
    - syntax name(id="macro name" name=c_diparm) [, diparm(string asis
> ) Level(cilevel) dof(passthru) syntaxonly ]
    - if ``dof''' == "" & ``e(df_r)''' != "" {
    = if `''' == "" & ``217''' != "" {
    - capture confirm integer number `e(df_r)'
    = capture confirm integer number 217
    - if !c(rc) {
    - local gdof dof(`e(df_r)')
    = local gdof dof(217)
    - }
    - capture
    - }
    - else local gdof ``dof'''
    = else local gdof `'''
    - local glevel `level'
    = local glevel 95
    - local lopt level(`glevel')
    = local lopt level(95)
    - if (``diparm''' == "") exit
    = if (``''' == "") exit

```

```

> _____ end _get_diparmopts.SpliceGlob
> als _____
    - local 0 `", `diparmopts'''
    = local 0 `", ''
    - local diparmopts
    - local k 0
    - syntax [, diparm(string asis) * ]
    - while ``diparm''' != "" {
    = while `''' != "" {
        local ++k
        local single 1
        local after
        capture _on_colon_parse `diparm'

```

```

if !c(rc) {
  local single 0
  local diparm ``s(before)''
  local after ``s(after)''
}
capture
SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `goptions'
local diparm`k' ``diparm''
local diparmopts ``diparmopts' : `diparm''
if `single' | ``:list retok after'' == '' {
  local 0 `", `options''
  syntax [, diparm(string asis) * ]
}
else {
  local diparm ``after''
}
}
- if ``soptions'' == '' {
= if `'' == '' {
- syntax [, diparm(string asis) ]
- }
- if (`execute' == '') {
= if ("" == "") {
- sreturn clear
- sreturn local options ``options''
= sreturn local options `''
- sreturn local diparm ``diparmopts''
= sreturn local diparm `''
- forval i = 1/`k' {
= forval i = 1/0 {
  sreturn local diparm`i' ``diparm`i''
}
- sreturn local k `k'
= sreturn local k 0
- exit

```

> _____ end _get_diparmo

> pts

```

- local NODIPARM : length local nodiparm
- if `NODIPARM' {
= if 8 {
- local options
- }
- local GTOPTS parse(":") bind quotes
- local k 0
- if !`NODIPARM' {

```

```

= if !8 {
  if ``e(diparm)'' != "" {
    local i 0
    local diparm ``e(diparm)''
  }
  else if ``e(diparm1)'' != "" {
    local i 1
    local diparm ``e(diparm1)''
  }
  while `:length local diparm' {
    gettoken diparm rest : diparm, `GTPTS'
    while `:length local rest' {
      local ++k
      local diparm`k' : copy local diparm
      gettoken COLON rest : rest, `GTPTS'
      gettoken diparm rest : rest, `GTPTS'
    }
    local ++k
    local diparm`k' : copy local diparm
    local ++i
    local diparm ``e(diparm`i)''
  }
}
- if `:length local options' {
= if 0 {
  local 0 `", `options'
  syntax [, diparm(string asis) *]
  if `k' & `:length local diparm' {
    local ++k
    local diparm`k' __sep__
  }
  while `:length local diparm' {
    gettoken diparm rest : diparm, `GTPTS'
    while `:length local rest' {
      local ++k
      local diparm`k' : copy local diparm
      gettoken COLON rest : rest, `GTPTS'
      gettoken diparm rest : rest, `GTPTS'
    }
    local ++k
    local diparm`k' : copy local diparm
    local 0 `", `options'
    syntax [, diparm(string asis) *]
  }
}
- if "`markdown'" != "" {

```

```

= if "" != "" {
    local lsize = c(linesize)
    set linesize 255
}
- `vv' mata: _coef_table()
= version 11, missing: mata: _coef_table()

> _____ begin _get_dio
> pts _____
    - version 11
    - syntax namelist(max=2) [, *]
    - gettoken name1 namelist : namelist
    - gettoken name2 namelist : namelist
    - GetDiopts diopts options, `options'
    = GetDiopts diopts options, fwrap(1)

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }

```

```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`allbaselevels' `nbaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`baselevels' `nbaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

```



```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0

```

```

- while ``opts'' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`versus' `compare'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `"' != "" {

```

```

        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
= local baselevels
    - local emptycells `emptycells' `noemptycells'
= local emptycells
    - local omitted `omitted' `noomitted'
= local omitted
    - local lstretch `lstretch' `nolstretch'
= local lstretch
    - local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
    - local abbrev `abbrev' `noabbrev'
= local abbrev
    - if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {

```

```

- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
}
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
}
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
}
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
}
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
}
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth("`cformat'") > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat "`cformat'"
  local cformat `cformat(`cformat')'
}
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth("`sformat'") > 8 {
    local sformat "%8.2f"
    di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat "`sformat'"
  local sformat `sformat(`sformat')'
}
- if `:length local pformat' {

```

```

= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`"pformat"') > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat `"pformat"'
    local pformat `pformat(pformat)'"'
}
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraon , `fvwraon'
= Wraon ,

> ----- begin _get_diopts.Wra
> pon -----
    - capture syntax [, W0rd WIdth]
    - if c(rc) {
        di as err "invalid fvwraon() option;"
        syntax [, W0rd WIdth]
        exit 198
    }
    - opts_exclusive "`word' `width'" fvwraon
    = opts_exclusive " " fvwraon

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while `"opts"' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> _____ end opts_exclus
> ive _____
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }
    _____

> _____ end _get_diopts.Wra
> pon _____
    - if "`fvwrap'" != "" {
    = if "fvwrap(1)" != "" {
    - FVWrap, `fvwrap'
    = FVWrap, fvwrap(1)
    _____

> _____ begin _get_diopts.FVW
> rap _____
    - syntax, fvwrap(integer)
    - if `fvwrap' < 0 {
    = if 1 < 0 {
        di as err "{p}invalid option {bf:fvwrap(`fvwrap')}"; " "nonnega
> tive integer required{p_end}"
        exit 198
    }
    _____

> _____ end _get_diopts.FVW
> rap _____
    - }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local diopts          fvwrap(1)
    - if `K' == 2 {
    = if 2 == 2 {
    - c_local `c_opts' ``options'``
    = c_local options `''''
    - }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare

```



```

        - sreturn local level `level'
        = sreturn local level 95
    _____
> _____ end _get_diopts.GetDio
> pts _____
    - c_local `name1' ```diopts''
    = c_local __00000C ``fvwrap(1)''
    - local snames : s(macros)
    - foreach sname of local snames {
    - local S_`sname' = s(`sname')
    = local S_level = s(level)
    - }
    - local S_`sname' = s(`sname')
    = local S_k = s(k)
    - }
    - sreturn clear
    - GetDiopts DEFAULT
    _____

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive ``allbaselevels' `noallbaselevels''
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'' != "" {
    = while `""' != "" {
        local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`allbaselevels' `nbaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'`` != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels' `nbaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'`` != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {

```

```

        - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____

```

```

- opts_exclusive "`omitted' `noomitted'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `""' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `""' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus

```

```

> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

>
> end opts_exclus
> ive
    - opts_exclusive "`coeflegend' `selegend'"
    = opts_exclusive " "

>
> begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

>
> end opts_exclus
> ive
    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "

>
> begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'

```

```

= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
    = opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    }

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`versus' `compare'"
    = opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0

```

```

- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev

```

```

- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
    local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
    local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `cformat(`cformat')'
  }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth("`sformat'") > 8 {
      local sformat "%8.2f"
      di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat "`sformat'"
    local sformat `sformat(`sformat')'
  }

```



```

    }
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`"'pformat'"') > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat `"'pformat'"'
    local pformat `"'pformat('pformat')'"'
}
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraupon , `fvwraupon'
= Wraupon ,

```

```

> _____ begin _get_diopts.Wra
> pon _____

```

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
    di as err "invalid fvwraupon() option;"
    syntax [, W0rd WIdth]
    exit 198
}
- opts_exclusive "'word' `width'" fvwraupon
= opts_exclusive " " fvwraupon

```

```

> _____ begin opts_exclus
> ive _____

```

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while `"'opts'"' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {

```

```

        = if 0 < 2 {
        - exit
    }
}
> ----- end opts_exclus
> ive -----
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }
}
> ----- end _get_diopts.Wra
> pon -----
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
    = c_local DEFAULT
    - if `K' == 2 {
    = if 1 == 2 {
        c_local `c_opts' ``options''
    }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95
}
> ----- end _get_diopts.GetDio
> pts -----
    - if ``name2'' == "" {
    = if ``' == "" {
    - GetDiopts DUPS, `options'
    = GetDiopts DUPS,
}
> ----- begin _get_diopts.GetDio
> pts -----
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel

```

```

> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
      local ++n
      gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit


---


> 

---

 end opts_exclus
> ive 

---


    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
      local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels' `nobaselevels'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'`` != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'`` != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {

```

```

- exit
> ----- end opts_exclus
> ive -----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "
> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
> ----- end opts_exclus
> ive -----
- opts_exclusive "`omitted' `noomitted'"
= opts_exclusive " "
> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
> ----- end opts_exclus
> ive -----

```

```

- opts_exclusive "`\lstretch' `nolstretch'"
= opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit


---


> 

---

 end opts_exclus
> ive 

---


- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit


---


> 

---

 end opts_exclus
> ive 

---


- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "


---


> 

---

 begin opts_exclus

```

```

> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

> ----- end opts_exclus
> ive
- opts_exclusive "`nocl' `nopvalues'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

> ----- end opts_exclus
> ive
- local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive
- version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0

```



```

- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels
    - local emptycells `emptycells' `noemptycells'
    = local emptycells
    - local omitted `omitted' `noomitted'
    = local omitted
    - local lstretch `lstretch' `nolstretch'
    = local lstretch
    - local fvlabel `fvlabel' `nofvlabel'
    = local fvlabel
    - local abbrev `abbrev' `noabbrev'
    = local abbrev
    - if "`allbaselevels'`baselevels'" == "" {
    = if "" == "" {
    - if c(showbaselevels) == "all" {
        local allbaselevels allbaselevels
    }
    - else if c(showbaselevels) == "on" {
        local baselevels baselevels
    }
    - }
    - if "`emptycells'" == "" {
    = if "" == "" {
    - if c(showemptycells) == "off" {
        local emptycells noemptycells
    }
    - }
    - if "`omitted'" == "" {
    = if "" == "" {
    - if c(showomitted) == "off" {
        local omitted noomitted
    }
    - }

```

```

- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth("`sformat'") > 8 {
      local sformat "%8.2f"
      di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat "`sformat'"
    local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth("`pformat'") > 5 {
      local pformat "%5.3f"
      di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat "`pformat'"
    local pformat `"pformat(`pformat')"'
  }
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
  }
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
  }
- Wraon , `fvwraon'
= Wraon ,

```

```

> ----- begin _get_diopts.Wra
> pon -----
    - capture syntax [, W0rd WIdth]
    - if c(rc) {
      di as err "invalid fvwrapon() option;"
      syntax [, W0rd WIdth]
      exit 198
    }
    - opts_exclusive "`word' `width'" fvwrapon
= opts_exclusive " " fvwrapon

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
      local ++n
      gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - local fvwrapon `word' `width'
= local fvwrapon
    - if `:length local fvwrapon' {
= if 0 {
      c_local fvwrapon fvwrapon(`fvwrapon')
    }

> ----- end _get_diopts.Wra
> pon -----
    - if "`fvwrap'" != "" {
= if "" != "" {
      FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv

```

```

> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local DUPS
    - if `K' == 2 {
    = if 1 == 2 {
        c_local `c_opts' ``options''
    }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95
    _____
> _____ end _get_diopts.GetDio
> pts _____
    - }
    - else {
        GetDiopts DUPS options, `options'
        c_local `name2' ``options''
    }
    - local DUPS : list DUPS - DEFAULT
    - gettoken DUPS : DUPS
    - if ``DUPS'' != "" {
    = if ``' != "" {
        if (strpos(`DUPS', "(")) {
            gettoken DUPS : DUPS, parse("(")
            local DUPS `DUPS'()'
        }
        di as err "duplicate {bf:`DUPS'} option not allowed"
        exit 198
    }
    - sreturn clear
    - foreach sname of local snames {
    - sreturn local `sname' = ``S_`sname''
    = sreturn local level = `95'
    - }
    - sreturn local `sname' = ``S_`sname''
    = sreturn local k = `0'
    - }
    _____
> _____ end _get_dio
> pts _____
    - if ``markdown'' != "" {
    = if ``' != "" {

```

```

        set linesize `lsize'
    }
    - if "`eqselect'" == "" & "`eformnote'" != "noeformnote" {
    = if "" == "" & "" != "noeformnote" {
    - if ``eformdi'' != "" & ("`e(cmd)'" != "gnbreg" | "`e(prefix)'" == "svy")
> {
    = if ``'' != "" & ("regress" != "gnbreg" | "" == "svy") {
        local k_iform `r(k_iform)'
        if ("`k_iform'" == "") {
            local k_iform = 1
        }
        local k_eq `e(k_eq)'
        if ("`k_eq'" == "") {
            local k_eq = 1
        }
        if (`k_iform' < `k_eq' & `k_iform') {
            if ("`e(cmd2)'" == "stintreg" | "`e(cmd2)'" == "streg") & ("`e(cmd)'"
> " == "weibull" | "`e(cmd)'" == "gompertz") {
            }
            else {
                _eform_multeq_note efnote : `k_iform' ``tr_item''
                di as txt "`efnote'"
            }
        }
    }
    - if (``eformdi'' != "" & "`e(noconstant)'" == "0" & ``eform_cons_ti''
> != "" & "`e(consonly)'" != "1") {
    = if (``'' != "" & "" == "0" & ``'' != "" & "" != "1") {
        if ("`e(cmd)'" == "asclogit" | "`e(cmd)'" == "cmclogit" | "`e(cmd)'" == "c
> mmixlogit" | "`e(cmd)'" == "cmxtmixlogit" ) {
            local asvar = ``e(ranvars)``e(fixvars)``e(indvars)'' != ""
            if ``e(casevars)'' != "" & `asvar' {
                local note1 "Exponentiated coefficients represent odds ratios for "
                local note2 "alternative-specific variables (first equation) and "
                local note3 "{help j_cmrisk##_new:relative-risk ratios} "
                local note4 "for case-specific variables."
                di as txt "{p 0 6 2}Note: `note1'`note2'`note3'`note4'{p_end}"
            }
        }
        if "`eform_cons_ti'" == "Inc. rate" {
            local eform_cons_note "incidence rate"
        }
        else if "`eform_cons_ti'" == "Rel. risk" {
            local eform_cons_note "relative risk"
        }
        else if "`eform_cons_ti'" == "Health" {

```

```

        local eform_cons_note "health (probability of no disease)"
    }
    else {
        local eform_cons_note = strlower("`eform_cons_ti'")
    }
    local eform_cons_note "baseline `eform_cons_note'"
    if ("`e(cmd2)'"=="") {
        local cmd `e(cmd)'
    }
    else {
        local cmd `e(cmd2)'
    }
    local f2 = udsustr("`cmd'",1,2)
    local is_re = ("`f2'"=="xt" | "`f2'"=="me")
    if `is_re' {
        local extranote " (conditional on zero random effects)"
    }
    di as txt "{p 0 6 2}Note: {bf:_cons} estimates " "`eform_cons_note'"
> extranote'" _c
        if ("`e(cmd)'"=="mlogit" | "`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmc
> logit" | "`e(cmd)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
        di as txt " for each outcome" _c
        }
        di as txt ".{p_end}"
        }
    - }
    - return add
    - if !`keepmc' {
    = if !0 {
    - return local mcmethod
    - return local mctitle
    - }

    _____
> _____ end _coef_ta
> ble _____
    _____
> _____ end _ereturn_disp
> lay _____
    - }
    - if e(N)>=. {exit 459}
    - if _rc {exit _rc}
    - capture drop `eta'
    = capture drop __000004
    - capture drop `mu'
    = capture drop __000005
    - predict double `eta', xb

```

```

= predict double __000004, xb


---


> 

---

 begin pred
> ict 

---


- version 8.2, missing
- if ``e(cmd)'' == "rocreg" & ``e(predict)'' == "" {
= if "regress" == "rocreg" & "regres_p" == "" {
  di as err "predict not allowed after nonparametric ROC"
  exit 198
}
- if ``e(mi)'' != "" & ``e(b)'' != "matrix" {
= if "" != "" & "matrix" != "matrix" {
  error 321
}
- if _caller() <= 5 | ``e(predict)'' == "" {
= if _caller() <= 5 | "regres_p" == "" {
  _predict `0'
}
- else {
- local v : display string(_caller())
- version `v', missing
= version 7, missing
- `e(predict)' `0'
= regres_p double __000004, xb


---


> 

---

 begin regre
> s_p 

---


- local vv : display "version " string(_caller()) ", missing:"
- version 6, missing
- syntax [anything] [if] [in] [, SCores * ]
- if ``scores'' != "" {
= if `'' != "" {
  GenScores `0'
  exit
}
- local xopts COVratio DFBeta(string) DFIIts E(string) Hat Leverage Pr(
> string) Welsch YStar(string)
- if ``e(prefix)'' != "" {
= if "" != "" {
  local svyopts Residuals Cooksd RSTandard RSTudent STDF STDR
}
- else if ``e(vcetype)'' == "Robust" {
= else if "" == "Robust" {
  local svyopts Cooksd RSTandard RSTudent STDF STDR
}
- local myopts `xopts' `svyopts'

```

```

= local myopts COVratio DFBeta(string) DFIts E(string) Hat Leverage Pr
> (string) Welsch YStar(string)
- if "`e(prefix)'" != "" | "`e(vcetype)'" == "Robust" {
= if "" != "" | "" == "Robust" {
  if "`e(vcetype)'" == "Robust" {
    local msg after robust estimation
  }
  else local msg after `e(prefix)' estimation
  syntax [anything] [if] [in] [, `myopts' *]
  if "`dfbeta'" != "" {
    local dfbopt dfbeta(`dfbeta')
  }
  if "`e(prefix)'" == "svy" | "`e(vcetype)'" == "Robust" {
    if "`e'" != "" {
      local eopt e(`e')
    }
    if "`pr'" != "" {
      local propt pr(`pr')
    }
    if "`ystar'" != "" {
      local ysopt ystar(`ystar')
    }
  }
  _prefix_noption `msg', `cooksd' `covrati' `dfbopt' `dfits' `eopt'
> `hat' `leverage' `propt' `rstandard' `rstudent' `stdf' `stdr' `welsch' `ysopt
> '
  }
- _pred_se "`myopts'" `0'
= _pred_se "COVratio DFBeta(string) DFIts E(string) Hat Leverage Pr(st
> ring) Welsch YStar(string)" double __000004, xb

> _____ begin _pred
> _se _____
- version 6.0, missing
- sret clear
- gettoken ouser 0 : 0
- local orig ``0'''
= local orig `` double __000004, xb''
- gettoken varn 0 : 0, parse(" ,[")
- gettoken nxt : 0, parse(" ,[(")
- if !(`"nxt"'=="" | `"nxt"'=="if" | `"nxt"'=="in" | `"nxt"'
> ==",") {
= if !(`"__000004"'=="" | `"__000004"'=="if" | `"__000004"'=="in" |
> `"__000004"'==",") {
- local typ `varn'
= local typ double

```



```

- gettoken varn 0 : 0, parse(" ,[")
- }
- syntax [if] [in] [, `ouser' CONStant(varname numeric) noOFFset *]
= syntax [if] [in] [, COVratio DFBeta(string) DFIIts E(string) Hat Le
> verage Pr(string) Welsch YStar(string) CONStant(varname numeric) noOFFset *]
- if ``options'' != "" {
= if ``xb'' != "" {
- _predict `orig'
= _predict double __000004, xb
- sret local done 1
- exit

> _____ end _pred
> _se _____
- if `s(done)' { exit }
= if 1 { exit }

> _____ end regre
> s_p _____
- }

> _____ end pred
> ict _____
- $SGLM_L 1 `eta' `mu'
= glim_l03 1 __000004 __000005

> _____ begin glim_
> l03 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 1 == -1 {
global SGLM_lt "Log"
if "$SGLM_m" == "1" {
global SGLM_lf "ln(u)"
}
else global SGLM_lf "ln(u/$SGLM_m)"
exit
}
- if `todo' == 0 {
= if 1 == 0 {
gen double `eta' = ln(`mu'/$SGLM_m)
exit
}
- if `todo' == 1 {
= if 1 == 1 {

```

```

- gen double `mu' = $SGLM_m*exp(`eta')
= gen double __000005 = 1*exp(__000004)
- exit

```

```

> _____ end glim_
> l03 _____
- $SGLM_mu `mu'
= glim_mu 0 . __000005

```

```

> _____ begin glim
> _mu _____
- version 7
- args min max mu
- tempname eps
- scalar `eps' = 1e-8
= scalar __00000C = 1e-8
- replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __000005 = 0+__00000C if __000005<=0+__00000C
- replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __000005 = .-__00000C if __000005>=.-__00000C

```

```

> _____ end glim
> _mu _____
- mat `b0' = e(b)
= mat __00000B = e(b)
- _post_vce_rank, checksize

```

```

> _____ begin _post_vce_r
> ank _____
- syntax, [Checksize]
- if "`checksize'" != "" {
= if "checksize" != "" {
- tempname V
- capture matrix `V' = e(V)
= capture matrix __00000C = e(V)
- if _rc {
exit
}
- local cols = colsof(`V')
= local cols = colsof(__00000C)
- if `cols' == 0 {
= if 12 == 0 {
exit
}
- }
- tempname V Vi rank

```

```

- mat `V' = e(V)
= mat __00000D = e(V)
- mat `Vi' = invsym(`V')
= mat __00000E = invsym(__00000D)
- sca `rank' = rowsof(`V') - diag0cnt(`Vi')
= sca __00000F = rowsof(__00000D) - diag0cnt(__00000E)
- mata:st_numscalar("e(rank)", st_numscalar("`rank'"))
= mata:st_numscalar("e(rank)", st_numscalar("__00000F"))

```

```

> _____ end _post_vce_r
> ank _____
- local k = e(rank)
- local from "`b0'"
= local from "__00000B"
- replace `z' = sum(`wt'*(`y'-'mu')^2/`v')
= replace __000008 = sum(__000003*(piq_timing_max-__000005)^2/__000007)
- global SGLM_ph = `z'[_N]/(`nobs'-'k')
= global SGLM_ph = __000008[_N]/(217-6)
- }
- }
- if "`from'" != "" & "`search'" == "" {
= if "__00000B" != "" & "" == "" {
- local initopt `"init(`from') search(off)'"
= local initopt `"init(__00000B) search(off)'"
- }
- else local initopt `"search(on) maxfeas(100)'"
- if `reg' & "`offopt'FROM_ORIG'"=="" {
= if 0 & `"'=="" {
local iterate 0
local nowarn "nowarning"
}
- local initopt "`initopt' iter(`iterate') `nowarn' "
= local initopt "init(__00000B) search(off) iter(300) "
- if "`estscale'" != "" & "$SGLM_V" == "glim_v1" {
= if "" != "" & "glim_v6" == "glim_v1" {
local MM d0
mat `b0' = e(b), $SGLM_ph
local from "`b0'"
local initopt `"init(`from', copy) search(off)'"
}
- if `"'scale'"=="" {
= if `"'=="" {
- local scale `scale1'
= local scale 1
- local cd
- }

```

```

- else if `scale'==0 {
= else if 1==0 {
  if `scale1' {
    local cd "square root of Pearson"
    local cd "`cd' X2-based dispersion"
  }
}
- else {
  if !`scale1' | (`scale1' & `scale'!=1) {
    local cd "dispersion equal to square"
    local cd "`cd' root of `scale'"
  }
}
- if `scale1' == 1 & `scale' != `scale1' {
= if 1 == 1 & 1 != 1 {
  global SGLM_s1 = `scale1'
  local fixme 1
}
- else {
- global SGLM_s1 = `scale'
= global SGLM_s1 = 1
- local fixme 0
- }
- tempname newdev
- if "`opg'`unbiased'" != "" {
= if "" != "" {
  if "`scopt'" == "" {
    tempvar scvar
    local scopt score(`scvar')
  }
  if "`unbiased'" != "" {
    local cll "`clopt'"
    local robust
    local clopt
  }
}
- if (!`iterate') { `iflog' di }
= if (!300) { * di }
- global GLIST : all globals "SGLM_*"
- if "`estscale'" != "" & "$SGLM_V" == "glim_v1" {
= if "" != "" & "glim_v6" == "glim_v1" {
  local sigma2 /sigma2
  local glim_lf glim_lf_scale
  global SGLM_estscale 1
}
- else {

```

```

- local glim_lf glim_lf
- global SGLM_estscale 0
- }
- `VV' ml model `MM' `glim_lf' (`yname': `y' = `xvars', `constant' `offopt
> ') `sigma2' [`weight'`exp'] if `touse', collinear missing max nooutput nopre
> serve `mlopts' title(Generalized linear models) `scopt' `robust' `clopt' `ml
> log' `initopt' `trace' `negh' `moptobj'
= version 18.5, missing: ml model e2 glim_lf (piq_timing_max: piq_timing_m
> ax = rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.s
> tky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.n
> ot_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx, ) [] if __000
> 002, collinear missing max nooutput nopreserve title(Generalized linear mod
> els) robust nolog init(__00000B) search(off) iter(300) negh

```

```

> _____ begin
> ml _____
- if _caller()>=11 {
- mopt `0'
= mopt model e2 glim_lf (piq_timing_max: piq_timing_max = rule_g rule_it
> r estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.
> stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_w
> g#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx, ) [] if __000002, collinear miss
> ing max nooutput nopreserve title(Generalized linear models) robust nolog
> init(__00000B) search(off) iter(300) negh

```

```

> _____ begin m
> opt _____
- local vv : di "version " string(_caller()) ":"
- version 12
- gettoken subcmd 0 : 0, parse(" ,")
- local lcmd : length local subcmd
- if "`subcmd'" == "clear" {
= if "model" == "clear" {
Clear
exit
}
- if ``"subcmd"' == "hold" {
= if ``"model"' == "hold" {
ml_hold `0'
exit
}
- if ``"subcmd"' == "unhold" {
= if ``"model"' == "unhold" {
ml_unhold `0'
exit
}
}

```

```

- if "`subcmd'" == "score" {
= if "model" == "score" {
    if _caller() > 12 {
        `vv' Score `0'
    }
    else {
        Score `0'
    }
    exit
}
- if "`subcmd'" == "count" {
= if "model" == "count" {
    Count `0'
    exit
}
- if "`subcmd'" == "trace" {
= if "model" == "trace" {
    Trace `0'
    exit
}
- if "`subcmd'" == bsubstr("graph",1,max(2,`lcmd')) {
= if "model" == bsubstr("graph",1,max(2,5)) {
    Graph `0'
    exit
}
- if "`subcmd'" == "init" {
= if "model" == "init" {
    Interactive 0
    `vv' Init `0'
    exit
}
- if "`subcmd'" == bsubstr("maximize",1,max(3,`lcmd')) {
= if "model" == bsubstr("maximize",1,max(3,5)) {
    Interactive 1
    `vv' MaxMin maximize `0'
    exit
}
- if "`subcmd'" == bsubstr("minimize",1,max(3,`lcmd')) {
= if "model" == bsubstr("minimize",1,max(3,5)) {
    Interactive 1
    `vv' MaxMin minimize `0'
    exit
}
- if "`subcmd'" == bsubstr("display",1,max(2,`lcmd')) {
= if "model" == bsubstr("display",1,max(2,5)) {
    Display `0'

```

```

        exit
    }
    - if "`subcmd'" == bsubstr("footnote",1,max(4,`lcmd')) {
= if "model" == bsubstr("footnote",1,max(4,5)) {
    ml_footnote `0'
    exit
    }
    - if "`subcmd'" == "," {
= if "model" == "," {
    Display, `0'
    exit
    }
    - if "`subcmd'" == bsubstr("model",1,max(3,`lcmd')) {
= if "model" == bsubstr("model",1,max(3,5)) {
    - `vv' capture noi Model `0'
    = version 18.5: capture noi Model e2 glim_lf (piq_timing_max: piq_tim
> ing_max = rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_nd
> x 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg
> #1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx, ) [] if
> __000002, collinear missing max nooutput nopreserve title(Generalized linea
> r models) robust nolog init(__00000B) search(off) iter(300) negh

> _____ begin mopt.Mo
> del _____
    - local version = string(_caller())
    - local vv : di "version `version':"
    = local vv : di "version 18.5:"
    - version 12
    - syntax anything(id="model" name=spec) [if] [in] [fw aw pw iw] [, B
> RACKET COLLinear MISSing CONTinue lf0(string) INIT(string) CONSTraints(strin
> g) noCNSNOTes VCE(passthru) NEGh NOPREserve TECHnique(string) ITERID(string)
> CRITtype(string) OBS(numlist max=1 >0) Title(string) WALDtest(integer -1) S
> VY SUBpop(string) SRSSubpop noSVYadjust SCore(passthru) noOUTput noSCVARS GR
> OUP(varname) ITERPROLOG(string) DERIVPROLOG(string) DERIVH(string) DERIVSCAL
> E(string) DERIV(string) nrderiv GNWMATrix(string) KAUXiliary(numlist int >=0
> ) MAXimize MINimize USERinfo(namelist) PUPDATED Robust CLuster(passthru) mop
> tobj(string) USEVIEWS * ]
    - if ``moptobj''' == "" {
    = if `''' == "" {
    - Clear

> _____ begin mopt.Cl
> ear _____
    - syntax [, NOTANOPTION]
    - capture drop $ML_w
    = capture drop

```

```

- capture drop $ML_samp
= capture drop
- capture drop $ML_sample
= capture drop
- capture drop $ML_subv
= capture drop
- capture drop $ML_grp
= capture drop
- mata: Mopt_drop_external()
- macro drop ML_*

```

```

> ----- end mopt.Cl
> ear -----
- }
- local maxmin `minimize' `maximize'
= local maxmin maximize
- opts_exclusive "`maxmin'"
= opts_exclusive "maximize"

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts maximize
- local n 0
- while ``opts' != "" {
= while `"maximize" != "" {
- local ++n
- gettoken item`n' opts : opts, bind
= gettoken item1 opts : opts, bind
- }
- while ``opts' != "" {
= while `"' != "" {
- local ++n
- gettoken item`n' opts : opts, bind
- }
- if `n' < 2 {
= if 1 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- if `:length local maxmin' {
= if 8 {
- local interactive 0

```



```

- }
- else local interactive 1
- _get_diparmopts, diparmopts(`options') soptions syntaxonly
= _get_diparmopts, diparmopts(nolog search(off) iter(300)) soptions
> syntaxonly
_____
> _____ begin _get_diparmo
> pts _____
- if _caller() < 8.2 {
  _get_diparmopts_8 `0'
  exit
}
- version 9
- local version : di "version " string(_caller()) ":"
- syntax [, diparmopts(string asis) EXECute soptions bottom plus S
> YNTAXonly * ]
- local goptions `options'
= local goptions
- SpliceGlobals junk , `goptions'
= SpliceGlobals junk ,
_____
> _____ begin _get_diparmopts.SpliceGlob
> als _____
- syntax name(id="macro name" name=c_diparm) [, diparm(string as
> is) Level(cilevel) dof(passthru) syntaxonly ]
- if ``dof''' == "" & ``e(df_r)''' != "" {
= if `''' == "" & `217''' != "" {
- capture confirm integer number `e(df_r)'
= capture confirm integer number 217
- if !c(rc) {
- local gdof dof(`e(df_r)')
= local gdof dof(217)
- }
- capture
- }
- else local gdof ``dof'''
= else local gdof `'''
- local glevel `level'
= local glevel 95
- local lopt level(`glevel')
= local lopt level(95)
- if (``diparm''' == "") exit
= if (``''' == "") exit
_____
> _____ end _get_diparmopts.SpliceGlob
> als _____

```

```

- local 0 `", `diparmopts'""
= local 0 `", nolog search(off) iter(300)""
- local diparmopts
- local k 0
- syntax [, diparm(string asis) * ]
- while `""`diparm'"" != "" {
= while `""' != "" {
    local ++k
    local single 1
    local after
    capture _on_colon_parse `diparm'
    if !c(rc) {
        local single 0
        local diparm `""s(before)""
        local after `""s(after)""
    }
    capture
    SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `goptions'
    local diparm`k' `""`diparm'""
    local diparmopts `""`diparmopts' : `diparm'""
    if `single' | `"":list retok after'"" == "" {
        local 0 `", `options'""
        syntax [, diparm(string asis) * ]
    }
    else {
        local diparm `""after'""
    }
}
- if `""soptions'"" == "" {
= if `soptions'"" == "" {
    syntax [, diparm(string asis) ]
}
- if (`execute'"" == "") {
= if ("" == "") {
- sreturn clear
- sreturn local options `""options'""
= sreturn local options `nolog search(off) iter(300)""
- sreturn local diparm `""`diparmopts'""
= sreturn local diparm `""'
- forval i = 1/`k' {
= forval i = 1/0 {
    sreturn local diparm`i' `""`diparm`i'""
}
- sreturn local k `k'
= sreturn local k 0
- exit

```

```

> _____ end _get_diparmo
> pts _____
- forval k = 1/`s(k)' {
= forval k = 1/0 {
    local diparm`k' ``s(diparm`k)'''
    }
- local ndiparm `s(k)'
= local ndiparm 0
- local options ``s(options)'''
= local options "nolog search(off) iter(300)'"
- if `interactive' & `:length local options' {
= if 0 & 27 {
    local 0 , `options'
    syntax [, NOTANOPTION]
    }
- if `:length local nopreserve' | `:length local score' {
= if 10 | 0 {
- global ML_preserve no
- }
- else global ML_preserve yes
- gettoken evaltype spec : spec
- confirm name `evaltype'
= confirm name e2
- gettoken evaluator spec : spec
- global ML_evaltype : copy local evaltype
- if `:length local srssubpop' {
= if 0 {
    local 0 , srssubpop
    syntax [, NONOPTION]
    exit 198
    }
- if `:length local subpop' {
= if 0 {
    local svy svy
    }
- if `:length local svy' {
= if 0 {
    opts_exclusive "`vce' `svy'" vce
    if `:length local weight' {
    di as err "svy option not allowed with weights"
    exit 198
    }
    global ML_noadj : copy local svyadjust
    }
- global ML_svy : copy local svy

```

```

- if _caller() >= 15 & c(userversion) >= 15 {
- local fparm ", freeparm"
- }
- local eqspec : copy local spec
- local ieq 0
- while `:length local eqspec' {
= while 249 {
- local ++ieq
- gettoken eq eqspec : eqspec, bind
- if bsubstr(trim("`eq'"),1,1) == "/" {
= if bsubstr(trim("(piq_timing_max: piqu_timing_max = rule_g rule_itr
> estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.s
> tky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg
> #0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx, )"),1,1) == "/" {
    local eq = bsubstr(trim("`eq'"),2,.)
    local spec : subinstr local spec "/"`eq'" "("("`eq'":`fparm')"'', wor
> d
    }
- else {
- gettoken p1 p2 : eq, parse("(")
- local p2 = trim("`p2'")
= local p2 = trim("`piq_timing_max: piqu_timing_max = rule_g rule_itr
> estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.s
> tky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg
> #0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx, )"'')
    - if bsubstr("`p2'",1,1) == ",", {
    = if bsubstr("piq_timing_max: piqu_timing_max = rule_g rule_itr estim
> ated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg
> #1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.no
> t_wg_ndx 1o.stky_wg#1o.not_wg_ndx, )",1,1) == ",", {
        gettoken comma p2 : p2, parse(",")
        local p2 = trim("`p2'")
    }
    - if "`p1'`p2'" == "()" {
    = if `(piq_timing_max: piqu_timing_max = rule_g rule_itr estimated 0
> b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_
> ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_n
> dx 1o.stky_wg#1o.not_wg_ndx, )"' == "()" {
        local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
    }
- }
- }
- while `:length local eqspec' {
= while 4 {
- local ++ieq
- gettoken eq eqspec : eqspec, bind

```

```

- if bsubstr(trim("`eq'"),1,1) == "/" {
= if bsubstr(trim("[]"),1,1) == "/" {
    local eq = bsubstr(trim("`eq'"),2,.)
    local spec : subinstr local spec "/"`eq' " ("`eq':`fparm')"', wor
> d
    }
- else {
- gettoken p1 p2 : eq, parse("(")
- local p2 = trim("`p2'")
= local p2 = trim('')
- if bsubstr("`p2'",1,1) == "," {
= if bsubstr("",1,1) == "," {
    gettoken comma p2 : p2, parse(",")
    local p2 = trim("`p2'")
    }
- if "`p1'`p2'" == "()" {
= if "`[]" == "()" {
    local spec : subinstr local spec "`eq' "(eq`ieq:)", word
    }
- }
- }
- while `:length local eqspec' {
= while 0 {
    local ++ieq
    gettoken eq eqspec : eqspec, bind
    if bsubstr(trim("`eq'"),1,1) == "/" {
        local eq = bsubstr(trim("`eq'"),2,.)
        local spec : subinstr local spec "/"`eq' " ("`eq':`fparm')"', wor
> d
    }
    else {
        gettoken p1 p2 : eq, parse("(")
        local p2 = trim("`p2'")
        if bsubstr("`p2'",1,1) == "," {
            gettoken comma p2 : p2, parse(",")
            local p2 = trim("`p2'")
        }
        if "`p1'`p2'" == "()" {
            local spec : subinstr local spec "`eq' "(eq`ieq:)", word
        }
    }
- if `interactive' {
= if 0 {
    SetGlobalVar ML_sample : _MLtua
}

```

```

- else {
- global ML_sample : tempvar
- if ``moptobj''' != "" {
= if `''' != "" {
    global ML_sample `moptobj'$ML_sample
    }
- }
- if ``moptobj''' != "" {
= if `''' != "" {
    cap drop $ML_sample
    }
- `vv' mark $ML_sample `if' `in' [`weight'`exp'], `zeroweight'
= version 18.5: mark __00000D if __000002 [],
- tempname eqlist
- `eqlist' = _eqlist.new, eqopts(NOCONSTant FREEParam) eqargopts(OF
> Fset EXPosure) noneedvarlist numdepvars(0) needequal
    = __00000E = _eqlist.new, eqopts(NOCONSTant FREEParam) eqargopts(OF
> Fset EXPosure) noneedvarlist numdepvars(0) needequal
    -class {
    -instance:
    -      array          n_depvars
    -      string         needequal
    -      string         noneedvarlist
    -      string         wtypes
    -      string         collinear
    -      string         nocons
    -      string         nocons_ignore
    -      double         n_eq
    -      string         gl_if
    -      string         gl_in
    -      string         gl_wgt
    -      string         gl_options
    -      _optlist        eq_opts_allowed
    -class {
    -instance:
    -      array options   = {}
    -      array names     = {}
    -}
    -      array          eq_list
    -      _optlist        mark_opts
    -      array          mark_list
    -      array          mark_name
    -      _optlist        smark_opts
    -      array          smark_list
    -      array          smark_name
    -      _optlist        rmcoll_opts

```

```

-      array      rmcoll_list
-      array      rmcoll_name
-      _optlist    rmdcoll_opts
-      array      rmdcoll_list
-      array      rmdcoll_name
-}

```

```

> ----- begin _eqlist.
> new -----
- version 9.2
- ._init

```

```

> ----- begin _eqlist._i
> nit -----
- version 9.2
- .n_eq = 0
- .gl_if = ""
- .gl_in = ""
- .gl_wgt = ""
- .gl_options = ""
- .eq_list = {}

```

```

> ----- end _eqlist._i
> nit -----
- ._setup `0'
  = ._setup , eqopts(NOCONSTant FREEParam) eqargopts(OFFset EXPosure)
> noneedvarlist numdepvars(0) needequal

```

```

> ----- begin _eqlist._se
> tup -----
- version 9.2
- .mark_list = {}
- .mark_name = {}
- .mark_opts.reset

```

```

> ----- begin _optlist.re
> set -----
- version 9
- .options = {}
- .names = {}

```

```

> ----- end _optlist.re
> set -----
- .smark_list = {}
- .smark_name = {}
- .smark_opts.reset

```

```

> _____ begin _optlist.re
> set _____
      - version 9
      - .options = {}
      - .names = {}
      _____
> _____ end _optlist.re
> set _____
      - .rmcoll_list = {}
      - .rmcoll_name = {}
      - .rmcoll_opts.reset
      _____
> _____ begin _optlist.re
> set _____
      - version 9
      - .options = {}
      - .names = {}
      _____
> _____ end _optlist.re
> set _____
      - .rmdcoll_list = {}
      - .rmdcoll_name = {}
      - .rmdcoll_opts.reset
      _____
> _____ begin _optlist.re
> set _____
      - version 9
      - .options = {}
      - .names = {}
      _____
> _____ end _optlist.re
> set _____
      - syntax [, EQopts(namelist) EQARGopts(namelist) noNEEDVARLIST C
> OMMONopts(string asis) MARKopts(namelist) SMARKopts(namelist) RMCOLLOpts(nam
> elist) RMDCOLLOpts(namelist) NUMDEPvars(numlist integer >=0) NEEDEQUAL WTYPE
> S(string) IGNORENOCONS ]
      - .eq_opts_allowed.reset
      _____
> _____ begin _optlist.re
> set _____
      - version 9
      - .options = {}
      - .names = {}
      _____
> _____ end _optlist.re

```



```

> set -----
    - foreach opt of local eqopts {
    - .eq_opts_allowed.addopt `opt'
    = .eq_opts_allowed.addopt NOCONStant
    -----

> ----- begin _optlist.add
> opt -----
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("NOCONStant")
    - if "`passthru'" != "" {
    = if "" != "" {
      local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "NOCONStant"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "noconstant"
    -----

> ----- end _optlist.add
> opt -----
    - }
    - .eq_opts_allowed.addopt `opt'
    = .eq_opts_allowed.addopt FREEParm
    -----

> ----- begin _optlist.add
> opt -----
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("FREEParm")
    - if "`passthru'" != "" {
    = if "" != "" {
      local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "FREEParm"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "freeparm"
    -----

> ----- end _optlist.add
> opt -----
    - }
    - foreach opt of local eqargopts {
    - .eq_opts_allowed.addopt `opt', passthru

```

```

= .eq_opts_allowed.addopt OFFset, passthru
> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("OFFset")
    - if "`passthru'" != "" {
    = if "passthru" != "" {
    - local optspec `optspec'(passthru)
    = local optspec OFFset(passthru)
    - }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "OFFset(passthru)"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "offset"
> _____ end _optlist.add
> opt _____
    - }
    - .eq_opts_allowed.addopt `opt', passthru
    = .eq_opts_allowed.addopt EXPosure, passthru
> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("EXPosure")
    - if "`passthru'" != "" {
    = if "passthru" != "" {
    - local optspec `optspec'(passthru)
    = local optspec EXPosure(passthru)
    - }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "EXPosure(passthru)"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "exposure"
> _____ end _optlist.add
> opt _____
    - }
    - local i 0
    - foreach opt of local markopts {
      .mark_opts.addopt `opt', passthru

```

```

    }
    - local i 0
    - foreach opt of local smarkopts {
      .smark_opts.addopt `opt', passthru
    }
    - local i 0
    - foreach opt of local rmcollopts {
      .rmcoll_opts.addopt `opt', passthru
    }
    - local i 0
    - foreach opt of local rmdcollopts {
      .rmdcoll_opts.addopt `opt', passthru
    }
    - .n_depvars.Arrdropall
    - if "`numdepvars'" != "" {
    = if "0" != "" {
      - foreach ndep of local numdepvars {
      - .n_depvars.Arrpush `ndep'
    = .n_depvars.Arrpush 0
      - }
      - }
      - else .n_depvars.Arrpush 1
      - .needequal = "`needequal'"
    = .needequal = "needequal"
      - .wtypes = "`wtypes'"
    = .wtypes = ""
      - .noneedvarlist = "`needvarlist'"
    = .noneedvarlist = "noneedvarlist"
      - .nocons_ignore = "`ignorenocons'"
    = .nocons_ignore = ""
  }
}

> _____ end _eqlist._se
> tup _____

> _____ end _eqlist.
> new _____
    - .`eqlist'.parse `spec'
    = .__00000E.parse (piq_timing_max: piq_timing_max = rule_g rule_itr
> estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#10.wg_ndx 1.stky_wg#0b.wg_ndx 1.s
> tky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#10.not_wg_ndx 10.stky_wg
> #0b.not_wg_ndx 10.stky_wg#10.not_wg_ndx, ) []

> _____ begin _eqlist.pa
> rse _____
    - version 9.2
    - .__init

```

```

> _____ begin _eqlist._i
> nit _____
    - version 9.2
    - .n_eq = 0
    - .gl_if = ""
    - .gl_in = ""
    - .gl_wgt = ""
    - .gl_options = ""
    - .eq_list = {}
    _____

> _____ end _eqlist._i
> nit _____
    - local MARKOPTLIST ```.mark_opts.dumpoptions'''
    _____

> _____ begin _optlist.dumpopti
> ons _____
    - version 9
    - forval i = 1/`.options.arnels' {
= forval i = 1/0 {
    local optlist `optlist' `.options['i']'
    }
    - local optlist : list uniq optlist
    - sreturn local optlist ```.optlist'''
= sreturn local optlist `'''
    - class exit ```.optlist'''
= class exit `'''
    _____

> _____ end _optlist.dumpopti
> ons _____
    = local MARKOPTLIST `'''
    - local SMARKOPTLIST ```.smark_opts.dumpoptions'''
    _____

> _____ begin _optlist.dumpopti
> ons _____
    - version 9
    - forval i = 1/`.options.arnels' {
= forval i = 1/0 {
    local optlist `optlist' `.options['i']'
    }
    - local optlist : list uniq optlist
    - sreturn local optlist ```.optlist'''
= sreturn local optlist `'''
    - class exit ```.optlist'''
= class exit `'''
    _____

```

```

> _____ end _optlist.dumpopti
> ons _____
    = local SMARKOPTLIST `''`
    - local RMCOLLOPTLIST ```.rmcoll_opts.dumpoptions'''
    _____

> _____ begin _optlist.dumpopti
> ons _____
    - version 9
    - forval i = 1/`.options.arnels' {
    = forval i = 1/0 {
        local optlist `optlist' `.options['i']'
    }
    - local optlist : list uniq optlist
    - sreturn local optlist ```optlist'''
    = sreturn local optlist `''`
    - class exit ```optlist'''
    = class exit `''`
    _____

> _____ end _optlist.dumpopti
> ons _____
    = local RMCOLLOPTLIST `''`
    - local RMDCOLLOPTLIST ```.rmdcoll_opts.dumpoptions'''
    _____

> _____ begin _optlist.dumpopti
> ons _____
    - version 9
    - forval i = 1/`.options.arnels' {
    = forval i = 1/0 {
        local optlist `optlist' `.options['i']'
    }
    - local optlist : list uniq optlist
    - sreturn local optlist ```optlist'''
    = sreturn local optlist `''`
    - class exit ```optlist'''
    = class exit `''`
    _____

> _____ end _optlist.dumpopti
> ons _____
    = local RMDCOLLOPTLIST `''`
    - _parse expand EQ GL : 0, gweight common( `MARKOPTLIST' `SMARKOPT
> LIST' `RMCOLLOPTLIST' `RMDCOLLOPTLIST' COLLlinear )
    = _parse expand EQ GL : 0, gweight common(      COLLlinear )
    - if `EQ_n' == 0 & ``.noneedvarlist' == "" {
    = if 1 == 0 & "noneedvarlist" == "" {
        syntax varlist
    }

```

```

- local rebind = `EQ_n' == 1
= local rebind = 1 == 1
- if `rebind' {
= if 1 {
- tokenize ``0'', parse(",()[]")
= tokenize ``(piq_timing_max: piq_timing_max = rule_g rule_itr est
> imated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_
> wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.
> not_wg_ndx 1o.stky_wg#1o.not_wg_ndx, ) []'', parse(",()[]")
- local rebind = ``1'' != "(" & ``2'' == "("
= local rebind = ``('' != "(" & ``piq_timing_max: piq_timing_max =
> rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_
> wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_w
> g_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx'' == "("
- }
- if `rebind' {
= if 0 {
while `:length local 0' {
gettoken tok 0 : 0, parse(" ,") bind match(par)
if ``par'' == "(" {
gettoken nxt : 0
local nxt = substr(``nxt'',1,1)
if inlist(``nxt'', "#", "|") {
local ZERO ``ZERO' (`tok')''
}
else {
local ZERO ``(`ZERO') (`tok') `0''
local 0
}
}
else if inlist(``tok'', "if", "in", ",") {
local ZERO ``(`ZERO') `tok' `0''
local 0
}
else if inlist(substr(``tok'',1,1), "#", "|") {
local ZERO ``ZERO`tok''
}
else {
local ZERO ``ZERO' `tok''
}
}
_parse expand EQ GL : ZERO, gweight common( `MARKOPTLIST' `SMARK
> OPTLIST' `RMCOLLOPTLIST' `RMDCOLLOPTLIST' COLLlinear )
}
- forval i = 1/`EQ_n' {
= forval i = 1/1 {

```

```

- if `i' <= `.n_depvars.arrnels' {
= if 1 <= 1 {
- local ndep = `.n_depvars[`i']'
= local ndep = 0
- }
- .eq_list[`i'] = .eqspec.new, numdepvars(`ndep') `.needequal' `.'
> noneedvarlist' wtypes(`.wtypes') `.nocons_ignore'
= .eq_list[1] = .eqspec.new, numdepvars(0) needequal noneedvarlis
> t wtypes()
-class {
-ininstance:
-      double  n_depvars
-      double  needequal
-      double  needvarlist
-      string  wtypes
-      string  name
-      string  depvars
-      double  hasequal
-      string  indepvars
-      string  other_markvars
-      double  nocons
-      double  nocons_ignore
-      string  offset
-      double  exposure
-      double  freeparm
-      string  if
-      string  in
-      string  wgt
-      string  options
-}

> _____ begin _eqspec.
> new _____
- version 9.2
- syntax [, NUMDEPvars(numlist integer >=0 max=1) NEEDEQUAL noNE
> EDVARLIST WYPES(string) IGNORENOCONS ]
- .n_depvars = 1
- if `:list sizeof numdepvars' {
= if 1 {
- .n_depvars = `numdepvars'
= .n_depvars = 0
- }
- .needequal = ("`needequal'" != "")
= .needequal = ("needequal" != "")
- .needvarlist = ("`needvarlist'" == "")
= .needvarlist = ("noneedvarlist" == "")

```

```

- .nocons_ignore = ("`ignorenocons" != "")
= .nocons_ignore = ("" != "")
- .wtypes = "`wtypes'"
= .wtypes = ""

```

```

> _____ end _eqspec.
> new _____
    - .eq_list['i'].parse `.eq_opts_allowed.objkey':`EQ_`i''
    = .eq_list[1].parse __key(60000026de00):piq_timing_max: piq_timing
> _max = rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1
> .stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o
> .not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx

```

```

> _____ begin _eqspec.pa
> rse _____
    - version 9.2
    - _on_colon_parse `0'
    = _on_colon_parse __key(60000026de00):piq_timing_max: piq_timing
> _max = rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1
> .stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o
> .not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx

```

```

> _____ begin _on_colon_pa
> rse _____
    - version 8.2
    - sreturn local before ""
    - sreturn local after ""
    - gettoken before after : 0, parse(":") bind match(par) quotes
    - if "`par'" != "" {
    = if "" != "" {
        local before `("`before')"'
    }
    - if `""before'" == ":" {
    = if `""__key(60000026de00)"' == ":" {
        sreturn local after `""after'"
        exit
    }
    - while `""COLON"' != ":" & `""after'" != "" {
    = while `"" != ":" & `":piq_timing_max: piq_timing_max = rule
> _g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b
> .wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx
> 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx"' != "" {
    - gettoken COLON after : after, parse(":") bind match(par) quo
> tes
    - if "`par'" != "" {
    = if "" != "" {

```



```

        local before `before' (`COLON')
        local COLON
    }
    - else if `"'COLON'" != ":" {
= else if `":'" != ":" {
        local before `"'before' `COLON'"
        local COLON
    }
    - }
    - while `"'COLON'" != ":" & `"'after'" != "" {
= while `":'" != ":" & `piq_timing_max: piq_timing_max = rule
> _g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b
> .wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx
> 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx'" != "" {
        gettoken COLON after : after, parse(":") bind match(par) quo
> tes

        if "`par'" != "" {
        local before `before' (`COLON')
        local COLON
    }
    else if `"'COLON'" != ":" {
        local before `"'before' `COLON'"
        local COLON
    }
    }
    - if `"'COLON'" != ":" {
= if `":'" != ":" {
        di as err `"' found where ':' expected"
        exit 198
    }
    - sreturn local before `"'before'"
= sreturn local before `__key(60000026de00)'"
    - sreturn local after `"'after'"
= sreturn local after `piq_timing_max: piq_timing_max = rule_
> g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.
> wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx
> 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx'"

_____|
> _____ end _on_colon_pa
> rse _____
    - local ol `s(before)'
= local ol __key(60000026de00)
    - if `:list sizeof ol' {
= if 1 {
    - local OPTLIST `".`ol'.dumpoptions'"
_____

```

```

> _____ begin _optlist.dumpopti
> ons _____
      - version 9
      - forval i = 1/`.options.arnels' {
      = forval i = 1/4 {
      - local optlist `optlist' `.options['i']'
      = local optlist NOCONSTant
      - }
      - local optlist `optlist' `.options['i']'
      = local optlist NOCONSTant FREEArm
      - }
      - local optlist `optlist' `.options['i']'
      = local optlist NOCONSTant FREEArm OFFset(passthru)
      - }
      - local optlist `optlist' `.options['i']'
      = local optlist NOCONSTant FREEArm OFFset(passthru) EXPosure(
> passthru)
      - }
      - local optlist : list uniq optlist
      - sreturn local optlist ```optlist'''
      = sreturn local optlist ``NOCONSTant FREEArm OFFset(passthru)
> EXPosure(passthru)''
      - class exit ```optlist'''
      = class exit ``NOCONSTant FREEArm OFFset(passthru) EXPosure(p
> assthru)''
      _____
> _____ end _optlist.dumpopti
> ons _____
      = local OPTLIST ``NOCONSTant FREEArm OFFset(passthru) EXPosure(
> passthru)''
      - local OPTNAMES ```.ol'.dumpnames'''
      _____
> _____ begin _optlist.dumpna
> mes _____
      - version 9
      - forval i = 1/`.names.arnels' {
      = forval i = 1/4 {
      - local namelist `namelist' `.names['i']'
      = local namelist noconstant
      - }
      - local namelist `namelist' `.names['i']'
      = local namelist noconstant freeparm
      - }
      - local namelist `namelist' `.names['i']'
      = local namelist noconstant freeparm offset
      - }

```

```

- local namelist `namelist' `.names['i']'
= local namelist noconstant freeparm offset exposure
- }
- local namelist : list uniq namelist
- sreturn local namelist ``namelist'''
= sreturn local namelist `noconstant freeparm offset exposure'

> ""

- class exit ``namelist'''
= class exit `noconstant freeparm offset exposure'



---


> ----- end _optlist.dumpna
> mes -----
= local OPTNAMES `noconstant freeparm offset exposure'
- local NOCONS constant noconstant
- if ``:list NOCONS & OPTNAMES''' == "" {
= if `noconstant' == "" {
  local NOCONS noCONSTant
}
- else local NOCONS
- }
- local 0 ``s(after)'''
= local 0 `piq_timing_max: piq_timing_max = rule_g rule_itr est
> imated 0b.stky_wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_
> wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.
> not_wg_ndx 1o.stky_wg#1o.not_wg_ndx'''
- if ``.wtypes''' != "" {
= if `''' != "" {
  local wgt `[.wtypes']"
}
- syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST' `NOCON
> S' *]
= syntax [anything(equalok)] [if] [in] [, NOCONSTant FREEParm 0
> FFset(passthru) EXPosure(passthru) *]
- local HOLDIF ``if'''
= local HOLDIF `'''
- local HOLDIN ``in'''
= local HOLDIN `'''
- if `wgt' != "" & `weight' != "" {
= if "" != "" & "" != "" {
  local HOLDWGT `[weight'exp]'''
}
- gettoken NAME REST : anything, parse(":")
- if trim("`NAME'") == ":" {
= if trim("piq_timing_max") == ":" {
  di as err "nothing found where equation name expected"
  exit 198

```

```

    }
- if `:list sizeof REST' {
= if 14 {
- if strpos(`"NAME"', ":") {
= if strpos(`"piq_timing_max"', ":") {
    capture _msparse `NAME'
    if c(rc) {
    di as err "{bf:`NAME'} invalid equation specification"
    exit 198
    }
    }
- else {
- ._confirm_eqname `NAME'
= ._confirm_eqname piq_timing_max
}

> _____ begin _eqspec._confirm_eqn
> ame _____
    - version 9.2
    - capture confirm number `0'
    = capture confirm number piq_timing_max
    - if (! c(rc)) exit
    - local hasdot = strpos(`"0"', ".")
    = local hasdot = strpos(`"piq_timing_max"', ".")
    - if `hasdot' {
    = if 0 {
        syntax varname(ts)
        exit
    }
    - capture syntax name(id="equation name")
    - if (! c(rc)) exit
}

> _____ end _eqspec._confirm_eqn
> ame _____
    - }
    - local NAME : list retok NAME
    - gettoken COLON anything : REST, parse(":")
    - }
    - else {
        local NAME
    }
    - gettoken DEPVARs REST : anything, parse("=") bind
    - if "`DEPVARs'" == "=" {
    = if "piq_timing_max " == "=" {
        local REST : copy local anything
        local DEPVARs
    }
}

```

```

- if (':length local DEPVARs' == 0 & '.n_depvars') {
= if (15 == 0 & 0) {
    di as err "nothing found where depvar expected"
    exit 198
  }
- if ``REST'' == "" {
= if ``= rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_
> wg#10.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx
> 0b.stky_wg#10.not_wg_ndx 10.stky_wg#0b.not_wg_ndx 10.stky_wg#10.not_wg_ndx"
> ' == "" {
    if 0`.needequal' {
    if `.needvarlist' | (':length local DEPVARs' != 0 & '.n_depvar
> s') {
    di as err "equal sign required to separate depvars from indepv
> ars"
    exit 198
    }
    }
    local DEPVARs
    local n_deps : list sizeof anything
    if `n_deps' != 0 | `.needvarlist' {
    if `n_deps' < `.n_depvars' {
    error 102
    }
    forval j = 1/`.n_depvars' {
    gettoken YY anything : anything
    local DEPVARs `DEPVARs' `YY'
    }
    local INDEPVARs : list retok anything
    }
    loca hasequal 0
    }
- else {
- gettoken EQ INDEPVARs : REST, parse("=") bind
- local hasequal 1
- }
- if `:list sizeof DEPVARs' {
= if 1 {
- _fv_check_depvar `DEPVARs'
= _fv_check_depvar piq_timing_max
- tsunab DEPVARs : `DEPVARs'
= tsunab DEPVARs : piq_timing_max
}

> _____ begin tsu
> nab _____
- version 6

```

```

- gettoken user 0: 0, parse(" :")
- gettoken colon 0: 0, parse(" :")
- if ""`colon'"" != ":" { error 198 }
= if `":'"" != ":" { error 198 }
- syntax [varlist(ts default=empty)] [, MIN(integer 1) MAX(int
> eger 32000) NAME(string)]
- c_local `user' `varlist'
= c_local DEPVARS piq_timing_max
- local n : word count `varlist'
= local n : word count piq_timing_max
- if `n'>=`min' & `n'<=`max' { exit }
= if 1>=1 & 1<=32000 { exit }

> _____ end tsu
> nab _____
- }
- if `:list sizeof INDEPVARS' {
= if 11 {
- fvunab INDEPVARS : `INDEPVARS'
= fvunab INDEPVARS : rule_g rule_itr estimated 0b.stky_wg#0b.wg
> _ndx 0b.stky_wg#10.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#
> 0b.not_wg_ndx 0b.stky_wg#10.not_wg_ndx 10.stky_wg#0b.not_wg_ndx 10.stky_wg#1
> 0.not_wg_ndx

> _____ begin fvu
> nab _____
- version 11
- _on_colon_parse `0'
= _on_colon_parse INDEPVARS : rule_g rule_itr estimated 0b.st
> ky_wg#0b.wg_ndx 0b.stky_wg#10.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx
> 0b.stky_wg#0b.not_wg_ndx 0b.stky_wg#10.not_wg_ndx 10.stky_wg#0b.not_wg_ndx 1
> 0.stky_wg#10.not_wg_ndx

> _____ begin _on_colon_pa
> rse _____
- version 8.2
- sreturn local before ""
- sreturn local after ""
- gettoken before after : 0, parse(":") bind match(par) quot

> es
- if ""`par'"" != "" {
= if "" != "" {
local before `"( `before' )"'
}
- if `""`before'"" == ":" {
= if `""INDEPVARS "" == ":" {

```

```

        sreturn local after ``after'''
    exit
}
- while ``COLON''' != ":" & ``after''' != "" {
    = while ``''' != ":" & ``: rule_g rule_itr estimated 0b.stky
> _wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b
> .stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.
> stky_wg#1o.not_wg_ndx''' != "" {
    - gettoken COLON after : after, parse(":") bind match(par) q
> uotes

- if ``par''' != "" {
= if ``''' != "" {
    local before `before' (`COLON')
    local COLON
}
- else if ``COLON''' != ":" {
= else if ``:"' != ":" {
    local before ``before' `COLON'''
    local COLON
}
- }
- while ``COLON''' != ":" & ``after''' != "" {
    = while ``:"' != ":" & `` rule_g rule_itr estimated 0b.stky
> _wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b
> .stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.
> stky_wg#1o.not_wg_ndx''' != "" {
    gettoken COLON after : after, parse(":") bind match(par) q
> uotes

    if ``par''' != "" {
        local before `before' (`COLON')
        local COLON
    }
    else if ``COLON''' != ":" {
        local before ``before' `COLON'''
        local COLON
    }
}
- if ``COLON''' != ":" {
= if ``:"' != ":" {
    di as err ""' found where ':' expected"
    exit 198
}
- sreturn local before ``before'''
= sreturn local before ``INDEPVARs "'
- sreturn local after ``after'''
= sreturn local after `` rule_g rule_itr estimated 0b.stky_

```

```

> wg#0b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.
> stky_wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.s
> tky_wg#1o.not_wg_ndx"

> _____ end _on_colon_pa
> rse _____
      - local 0 ``s(before)''
      = local 0 ``INDEPVARs ''
      - syntax name(id="macro name" name=user)
      - local 0 ``s(after)''
      = local 0 `` rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0
> b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not
> _wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_
> wg_ndx"
      - syntax [varlist(ts fv default=none)] [, MIN(integer 1) MAX(i
> nteger 32000) NAME(string) ]
      - c_local `user' `varlist'
      = c_local INDEPVARs rule_g rule_itr estimated 0b.stky_wg#0b.wg
> _ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#
> 0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1
> o.not_wg_ndx
      - local n : list sizeof varlist
      - if (`min' <= `n' & `n' <= `max') exit
      = if (1 <= 11 & 11 <= 32000) exit

> _____ end fvu
> nab _____
      - }
      - if inlist("noconstant", ``noconstant'', ``constant'') {
      = if inlist("noconstant", "", "") {
        if ``INDEPVARs'' == "" & !`.nocons_ignore' {
          di as err "independent variables are required when option noco
> nstant is specified"
          exit 102
        }
        if ``NOCONS'' != "" {
          local options `options' noconstant
        }
        local NOCONS 1
      }
      - else local NOCONS 0
      - if ``offset'`exposure'`` != "" {
      = if ``'' != "" {
        .check_offset, `offset' `exposure'
        local OFFSET ``s(offset)''
        local EXPOSURE = (``exposure' != "")

```



```

        local OTHER `s(offset)'
    }
- else local EXPOSURE 0
- local FREEARM = ``freeparm''' != ""
= local FREEARM = `''' != ""
- local OPTIONS
- local SPACE
- foreach OPTNAME of local OPTNAMES {
- if ``OPTNAME''' != "" {
= if `''' != "" {
    local OPTIONS ``OPTIONS'`SPACE'`OPTNAME'''
    local SPACE " "
    }
- }
- if ``OPTNAME''' != "" {
= if `''' != "" {
    local OPTIONS ``OPTIONS'`SPACE'`OPTNAME'''
    local SPACE " "
    }
- }
- if ``OPTNAME''' != "" {
= if `''' != "" {
    local OPTIONS ``OPTIONS'`SPACE'`OPTNAME'''
    local SPACE " "
    }
- }
- if ``OPTNAME''' != "" {
= if `''' != "" {
    local OPTIONS ``OPTIONS'`SPACE'`OPTNAME'''
    local SPACE " "
    }
- }
- if ``options''' != "" {
= if `''' != "" {
    local OPTIONS ``OPTIONS'`SPACE'`options'''
    }
- .name = ``NAME'''
= .name = `piq_timing_max'
- .depvars = ``DEPVARs'''
= .depvars = `piq_timing_max'
- .hasequal = `hasequal'
= .hasequal = 1
- .indepvars = ``:list retok INDEPVARs'''
= .indepvars = `rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx
> 0b.stky_wg#10.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.no
> t_wg_ndx 0b.stky_wg#10.not_wg_ndx 10.stky_wg#0b.not_wg_ndx 10.stky_wg#10.not

```

```

> _wg_ndx'''
    - .other_markvars = ``:list retok OTHER'''
    = .other_markvars = `'''
    - .nocons = `NOCONS'
    = .nocons = 0
    - .if = ``HOLDIF'''
    = .if = `'''
    - .in = ``HOLDIN'''
    = .in = `'''
    - .wgt = ``HOLDWGT'''
    = .wgt = `'''
    - .offset = ``OFFSET'''
    = .offset = `'''
    - .exposure = `EXPOSURE'
    = .exposure = 0
    - .freeparm = `FREEPARM'
    = .freeparm = 0
    - .options = ``OPTIONS'''
    = .options = `'''

> _____ end _eqspec.pa
> rse _____
    - }
    - local MARKOPTLIST ``.mark_opts.dumpoptions'''
    _____

> _____ begin _optlist.dumpopti
> ons _____
    - version 9
    - forval i = 1/`.options.arnels' {
    = forval i = 1/0 {
        local optlist `optlist' `.options['i']'
    }
    - local optlist : list uniq optlist
    - sreturn local optlist ``optlist'''
    = sreturn local optlist `'''
    - class exit ``optlist'''
    = class exit `'''

> _____ end _optlist.dumpopti
> ons _____
    = local MARKOPTLIST `'''
    - local MARKOPTNAMES ``.mark_opts.dumpnames'''
    _____

> _____ begin _optlist.dumpna
> mes _____
    - version 9

```

```

- forval i = 1/`.names.arnels' {
= forval i = 1/0 {
    local namelist `namelist' `.names[`i']'
    }
- local namelist : list uniq namelist
- sreturn local namelist ``namelist'''
= sreturn local namelist `'''
- class exit ``namelist'''
= class exit `'''

> _____ end _optlist.dumpna
> mes _____
    = local MARKOPTNAMES `'''
    - local OPTLIST1 : substr local MARKOPTLIST "(passthru)" "(strin
> g asis)", all
    - local SMARKOPTLIST ```.smark_opts.dumpoptions'''

> _____ begin _optlist.dumpopti
> ons _____
    - version 9
    - forval i = 1/`.options.arnels' {
    = forval i = 1/0 {
        local optlist `optlist' `.options[`i']'
        }
    - local optlist : list uniq optlist
    - sreturn local optlist ``optlist'''
    = sreturn local optlist `'''
    - class exit ``optlist'''
    = class exit `'''

> _____ end _optlist.dumpopti
> ons _____
    = local SMARKOPTLIST `'''
    - local SMARKOPTNAMES ```.smark_opts.dumpnames'''

> _____ begin _optlist.dumpna
> mes _____
    - version 9
    - forval i = 1/`.names.arnels' {
    = forval i = 1/0 {
        local namelist `namelist' `.names[`i']'
        }
    - local namelist : list uniq namelist
    - sreturn local namelist ``namelist'''
    = sreturn local namelist `'''
    - class exit ``namelist'''

```

```

        = class exit `""`
    }
}
> ----- end _optlist.dumpna
> mes -----
    = local SMARKOPTNAMES `""`
    - local OPTLIST1s : subinstr local SMARKOPTLIST "(passthru)" "(str
> ing asis)", all
    - local RMCOLLOPTLIST ```.rmcoll_opts.dumpoptions``
}
> ----- begin _optlist.dumpopti
> ons -----
    - version 9
    - forval i = 1/`.options.arlnels' {
    = forval i = 1/0 {
        local optlist `optlist' `_.options['i']'
    }
    - local optlist : list uniq optlist
    - sreturn local optlist ```.optlist``
    = sreturn local optlist `""`
    - class exit ```.optlist``
    = class exit `""`
}
> ----- end _optlist.dumpopti
> ons -----
    = local RMCOLLOPTLIST `""`
    - local RMCOLLOPTNAMES ```.rmcoll_opts.dumpnames``
}
> ----- begin _optlist.dumpna
> mes -----
    - version 9
    - forval i = 1/`.names.arlnels' {
    = forval i = 1/0 {
        local namelist `namelist' `_.names['i']'
    }
    - local namelist : list uniq namelist
    - sreturn local namelist ```.namelist``
    = sreturn local namelist `""`
    - class exit ```.namelist``
    = class exit `""`
}
> ----- end _optlist.dumpna
> mes -----
    = local RMCOLLOPTNAMES `""`
    - local OPTLIST2 : subinstr local RMCOLLOPTLIST "(passthru)" "(str
> ing asis)", all
    - local RMDCOLLOPTLIST ```.rmdcoll_opts.dumpoptions``
}

```

```

> _____ begin _optlist.dumpopti
> ons _____
    - version 9
    - forval i = 1/`.options.arnels' {
= forval i = 1/0 {
    local optlist `optlist' `.options['i']'
    }
    - local optlist : list uniq optlist
    - sreturn local optlist ```optlist'''
= sreturn local optlist `'''
    - class exit ```optlist'''
= class exit `'''
    _____

> _____ end _optlist.dumpopti
> ons _____
    = local RMDCOLLOPTLIST `'''
    - local RMDCOLLOPTNAMES ```.rmdcoll_opts.dumpnames'''
    _____

> _____ begin _optlist.dumpna
> mes _____
    - version 9
    - forval i = 1/`.names.arnels' {
= forval i = 1/0 {
    local namelist `namelist' `.names['i']'
    }
    - local namelist : list uniq namelist
    - sreturn local namelist ```namelist'''
= sreturn local namelist `'''
    - class exit ```namelist'''
= class exit `'''
    _____

> _____ end _optlist.dumpna
> mes _____
    = local RMDCOLLOPTNAMES `'''
    - local OPTLIST3 : substr local RMDCOLLOPTLIST "(passthru)" "(st
> ring asis)", all
    - local 0 `", `GL_op'''
    = local 0 `", ""
    - syntax [, `OPTLIST1' `OPTLIST1s' `OPTLIST2' `OPTLIST3' COLLlinear
> noCONSTant * ]
    = syntax [, COLLlinear noCONSTant * ]
    - local GL_op ```options'''
    = local GL_op `'''
    - if ```collinear''' != "" {
    = if `''' != "" {

```

```

    local GL_op ``GL_op' `collinear''
    .collinear = ``collinear'
  }
- if ``constant'' != "" {
= if ``'' != "" {
    local GL_op ``GL_op' `constant''
    .nocons = ``constant'
  }
- local I 0
- foreach OPT of local MARKOPTNAMES {
  if `:list sizeof `OPT'' {
    .mark_list[`++I'] = .eqspec.new, numdep(0) wtypes(`.wtypes')
    .mark_list[`I'].parse "" : ``OPT''
    .mark_name.Arrpush ``OPT''
  }
}
- local I 0
- foreach OPT of local SMARKOPTNAMES {
  if `:list sizeof `OPT'' {
    .smark_list[`++I'] = .eqspec.new, numdep(0) wtypes(`.wtypes')
    .smark_list[`I'].parse "" : ``OPT''
    .smark_name.Arrpush ``OPT''
  }
}
- local I 0
- foreach OPT of local RMCOLLOPTNAMES {
  if `:list sizeof `OPT'' {
    .rmcoll_list[`++I'] = .eqspec.new, numdep(0) wtypes(`.wtypes')
    .rmcoll_list[`I'].parse "" : ``OPT''
    .rmcoll_name.Arrpush ``OPT''
  }
}
- local I 0
- foreach OPT of local RMDCOLLOPTNAMES {
  if `:list sizeof `OPT'' {
    .rmdcoll_list[`++I'] = .eqspec.new, wtypes(`.wtypes')
    .rmdcoll_list[`I'].parse "" : ``OPT''
    .rmdcoll_name.Arrpush ``OPT''
  }
}
- .n_eq = `EQ_n'
= .n_eq = 1
- .gl_if = ``GL_if''
= .gl_if = ``''
- .gl_in = ``GL_in''
= .gl_in = ``''

```

```

- .gl_wgt = ``GL_wt'''
= .gl_wgt = ``[]'''
- .gl_options = ``:list retok GL_op'''
= .gl_options = ``'''

> _____ end _eqlist.pa
> rse _____
- if ``subpop''' != "" & ``missing''' == "" {
= if "" != "" & "missing" == "" {
  if `interactive' {
    SetGlobalVar ML_samp : _MLtu
  }
  else {
    global ML_samp : tempvar
    if ``moptobj''' != "" {
      global ML_samp `moptobj'$ML_samp
    }
  }
  tempvar markuse
  _svy_setup $ML_sample $ML_samp, svy subpop(`subpop')
  quietly gen byte `markuse' = $ML_samp
}
- else global ML_samp $ML_sample
= else global ML_samp __00000D
- if ``collinear''' == "" {
= if "collinear" == "" {
  .`eqlist'.rmcoll $ML_samp, replace `missing'
}
- else if ``missing''' == "" {
= else if "missing" == "" {
  .`eqlist'.markout $ML_samp, replace
}
- if "$ML_samp" != "$ML_sample" {
= if "__00000D" != "__00000D" {
  `vv' quietly replace $ML_sample = 0 if `markuse' & !$ML_samp
  drop `markuse'
}
- local eq_n = `.`eqlist'.eq count'

> _____ begin _eqlist
> .eq _____
- version 9.2
- args item idx
- if ``item''' == "count" {
= if "count" == "count" {
- sreturn local value ``.n_eq'''

```

```

= sreturn local value ``1''
- class exit ``s(value)''
= class exit ``1''

> _____ end _eqlist
> .eq _____
= local eq_n = 1
- global ML_n : copy local eq_n
- global ML_dim = ``.eqlist'.dim'

> _____ begin _eqlist.
> dim _____
- version 9.2
- syntax
- local neq = ``.eq count'

> _____ begin _eqlist
> .eq _____
- version 9.2
- args item idx
- if ``item' == "count" {
= if "count" == "count" {
- sreturn local value ``.n_eq''
= sreturn local value ``1''
- class exit ``s(value)''
= class exit ``1''

> _____ end _eqlist
> .eq _____
= local neq = 1
- forval i = 1/`neq' {
= forval i = 1/1 {
- local xvarsi ``.eq indepvars `i''

> _____ begin _eqlist
> .eq _____
- version 9.2
- args item idx
- if ``item' == "count" {
= if "indepvars" == "count" {
sreturn local value ``.n_eq''
class exit ``s(value)''
}
- else if 0 < `idx' & `idx' <= `.n_eq' {
= else if 0 < 1 & 1 <= 1 {
- .eq_list[`idx'].item `item'

```



```

= .eq_list[1].item indepvars
> _____ begin _eqspec.i
> tem _____
    - version 9.2
    - args item
    - .check_eq_item_name item, `item'
    = .check_eq_item_name item, indepvars
> _____ begin _eqspec._check_eq_item_n
> ame _____
    - version 9.2
    - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
> IF IN WGT OTHER NOCONS OFFset EXPosure FREEParam OPTIONS ]
    - if c(rc) error 198
    - if `:list sizeof other' {
    = if 0 {
        local other other_markvars
    }
    - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
    = local item indepvars
    - if `:list sizeof item' != 1 {
    = if 1 != 1 {
        error 198
    }
    - c_local `c_item' `item'
    = c_local item indepvars
> _____ end _eqspec._check_eq_item_n
> ame _____
    - local value ```.`item'```
    = local value ``rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx
> 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.n
> ot_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.no
> t_wg_ndx```
    - sreturn local value ```.`value'```
    = sreturn local value ``rule_g rule_itr estimated 0b.stky_wg#0
> b.wg_ndx 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky
> _wg#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_
> wg#1o.not_wg_ndx```
    - class exit ```.`value'```
    = class exit ``rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx
> 0b.stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.no
> t_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not
> _wg_ndx```

```

```

> _____ end _eqspec.i
> tem _____
      - class exit ``s(value)''
      = class exit "rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b
> .stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_
> wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_w
> g_ndx"

> _____ end _eqlist
> .eq _____
      = local xvarsi "rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b
> .stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_
> wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_w
> g_ndx"
      - local noconsi ``.eq nocons `i'``

> _____ begin _eqlist
> .eq _____
      - version 9.2
      - args item idx
      - if ``item'' == "count" {
      = if "nocons" == "count" {
        sreturn local value ``.n_eq''
        class exit ``s(value)''
      }
      - else if 0 < `idx' & `idx' <= `.n_eq' {
      = else if 0 < 1 & 1 <= 1 {
        - .eq_list[`idx'].item `item'
      = .eq_list[1].item nocons

> _____ begin _eqspec.i
> tem _____
      - version 9.2
      - args item
      - ._check_eq_item_name item, `item'
      = ._check_eq_item_name item, nocons

> _____ begin _eqspec._check_eq_item_n
> ame _____
      - version 9.2
      - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
> IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
      - if c(rc) error 198
      - if `:list sizeof other' {
      = if 0 {

```

```

        local other other_markvars
    }
    - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
    = local item      nocons
    - if `:list sizeof item' != 1 {
    = if 1 != 1 {
        error 198
    }
    - c_local `c_item' `item'
    = c_local item nocons
    _____
> _____ end _eqspec._check_eq_item_n
> ame _____
    - local value ```.`item'```
    = local value ``0```
    - sreturn local value ```.value```
    = sreturn local value ``0```
    - class exit ```.value```
    = class exit ``0```
    _____
> _____ end _eqspec.i
> tem _____
    - class exit ```.s(value)```
    = class exit ``0```
    _____
> _____ end _eqlist
> .eq _____
    = local noconsi ``0```
    - local dim = `dim' + `:list sizeof xvarsi'
    = local dim = + 11
    - if ``noconsi' == "0" {
    = if "0" == "0" {
        - local ++dim
        - }
        - }
    - sreturn local value ```.dim```
    = sreturn local value ``12```
    - class exit ```.s(value)```
    = class exit ``12```
    _____
> _____ end _eqlist.
> dim _____
    = global ML_dim = 12
    - forval i = 1/`eq_n' {
    = forval i = 1/1 {

```

```

- local depvars ``.eqlist'.eq depvars `i''
-
-
> ----- begin _eqlist
> .eq -----
- version 9.2
- args item idx
- if ``item' == "count" {
= if "depvars" == "count" {
  sreturn local value ``.n_eq'
  class exit ``s(value)'''
}
- else if 0 < `idx' & `idx' <= `.n_eq' {
= else if 0 < 1 & 1 <= 1 {
- .eq_list[`idx'].item `item'
= .eq_list[1].item depvars
-
-
> ----- begin _eqspec.i
> tem -----
- version 9.2
- args item
- .check_eq_item_name item, `item'
= .check_eq_item_name item, depvars
-
-
> ----- begin _eqspec._check_eq_item_n
> ame -----
- version 9.2
- capture syntax name(name=c_item) [, NAME DEPvars INDEPvars I
> F IN WGT OTHER NOCONS OFFset EXPOsure FREEparm OPTions ]
- if c(rc) error 198
- if `:list sizeof other' {
= if 0 {
  local other other_markvars
}
- local item `name' `depvars' `indepvars' `if' `in' `wgt' `oth
> er' `nocons' `offset' `exposure' `freeparm' `options'
= local item depvars
- if `:list sizeof item' != 1 {
= if 1 != 1 {
  error 198
}
- c_local `c_item' `item'
= c_local item depvars
-
-
> ----- end _eqspec._check_eq_item_n
> ame -----
- local value ``.item'

```

```

        = local value `piq_timing_max"
        - sreturn local value `value'"
        = sreturn local value `piq_timing_max"
        - class exit `value'"
        = class exit `piq_timing_max"
    > _____ end _eqspec.i
> tem _____
        - class exit `s(value)'"
        = class exit `piq_timing_max"
    > _____ end _eqlist
> .eq _____
        = local depvars piq_timing_max
        - local eq `.`eqlist'.eq name `i'"
    > _____ begin _eqlist
> .eq _____
        - version 9.2
        - args item idx
        - if `item'" == "count" {
        = if "name" == "count" {
            sreturn local value `.`.n_eq'"
            class exit `s(value)'"
        }
        - else if 0 < `idx' & `idx' <= `n_eq' {
        = else if 0 < 1 & 1 <= 1 {
            - .eq_list[`idx'].item `item'
            = .eq_list[1].item name
    > _____ begin _eqspec.i
> tem _____
        - version 9.2
        - args item
        - .check_eq_item_name item, `item'
        = .check_eq_item_name item, name
    > _____ begin _eqspec._check_eq_item_n
> ame _____
        - version 9.2
        - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars I
> F IN WGT OTHER NOCONS OFFset EXPosure FREEParam OPTions ]
        - if c(rc) error 198
        - if `:list sizeof other' {
        = if 0 {
            local other other_markvars

```

```

    }
    - local item `name' `depvars' `indepvars' `if' `in' `wgt' `oth
> er' `nocons' `offset' `exposure' `freeparm' `options'
    = local item name
    - if `:list sizeof item' != 1 {
    = if 1 != 1 {
        error 198
    }
    - c_local `c_item' `item'
    = c_local item name
    _____
> _____ end _eqspec._check_eq_item_n
> ame _____
    - local value ```.`item'```
    = local value `piq_timing_max'
    - sreturn local value ``value'```
    = sreturn local value `piq_timing_max'
    - class exit ``value'```
    = class exit `piq_timing_max'
    _____
> _____ end _eqspec.i
> tem _____
    - class exit ``s(value)```
    = class exit `piq_timing_max'
    _____
> _____ end _eqlist
> .eq _____
    = local eq piq_timing_max
    - if !`:length local eq' {
    = if !14 {
        local eq eq`i'
    }
    - if `:list eq in eqnames' {
    = if 0 {
        di as err "equation ``eq'' multiply defined"
        exit 110
    }
    - local eqnames `eqnames' `eq'
    = local eqnames piq_timing_max
    - fvexpand `.`eqlist'.eq indepvars `i' if $ML_samp
    _____
> _____ begin _eqlist
> .eq _____
    - version 9.2
    - args item idx
    - if ``item'``` == "count" {

```

```

= if "indepvars" == "count" {
  sreturn local value ```.n_eq'''
  class exit ```s(value)'''
}
- else if 0 < `idx' & `idx' <= `.n_eq' {
= else if 0 < 1 & 1 <= 1 {
- .eq_list[`idx'].item `item'
= .eq_list[1].item indepvars
}

> _____ begin _eqspec.i
> tem _____
- version 9.2
- args item
- .check_eq_item_name item, `item'
= .check_eq_item_name item, indepvars
}

> _____ begin _eqspec._check_eq_item_n
> ame _____
- version 9.2
- capture syntax name(name=c_item) [, NAME DEPvars INDEPvars I
> F IN WGT OTHER NOCONS OFFset EXPosure FREEParam OPTions ]
- if c(rc) error 198
- if `:list sizeof other' {
= if 0 {
  local other other_markvars
}
- local item `name' `depvars' `indepvars' `if' `in' `wgt' `oth
> er' `nocons' `offset' `exposure' `freeparm' `options'
= local item indepvars
- if `:list sizeof item' != 1 {
= if 1 != 1 {
  error 198
}
- c_local `c_item' `item'
= c_local item indepvars
}

> _____ end _eqspec._check_eq_item_n
> ame _____
- local value ```.`item''''
= local value ```rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0
> b.stky_wg#10.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not
> _wg_ndx 0b.stky_wg#10.not_wg_ndx 10.stky_wg#0b.not_wg_ndx 10.stky_wg#10.not_
> wg_ndx'''
- sreturn local value ```.value'''
= sreturn local value ```rule_g rule_itr estimated 0b.stky_wg#0b.
> wg_ndx 0b.stky_wg#10.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_w

```

```

> g#0b.not_wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg
> #1o.not_wg_ndx''
    - class exit ````value''''
    = class exit ``rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b
> .stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_
> wg_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_w
> g_ndx''
    _____
> _____ end _eqspec.i
> tem _____
    - class exit ````s(value)''''
    = class exit ``rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.s
> tky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg
> _ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_
> ndx''
    _____
> _____ end _eqlist
> .eq _____
    = fvexpand rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.stky_wg
> #1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_wg_ndx 0
> b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg_ndx if
> __00000D
    - if ``r(tsops)'' == "true" {
    = if "" == "true" {
      global ML_preserve no
    }
    - local eq_rhs`i' ``r(varlist)''''
    = local eq_rhs1 ``rule_g rule_itr estimated 0b.stky_wg#0b.wg_ndx 0b.
> stky_wg#1o.wg_ndx 1.stky_wg#0b.wg_ndx 1.stky_wg#1.wg_ndx 0b.stky_wg#0b.not_w
> g_ndx 0b.stky_wg#1o.not_wg_ndx 1o.stky_wg#0b.not_wg_ndx 1o.stky_wg#1o.not_wg
> _ndx''
    - local eq_nocons`i' ``.eqlist'.eq nocons `i''
    _____
> _____ begin _eqlist
> .eq _____
    - version 9.2
    - args item idx
    - if ``item'' == "count" {
    = if "nocons" == "count" {
      sreturn local value ``.n_eq''''
      class exit ````s(value)''''
    }
    - else if 0 < `idx' & `idx' <= `.n_eq' {
    = else if 0 < 1 & 1 <= 1 {
      - .eq_list[`idx'].item `item'
      = .eq_list[1].item nocons

```



```

> _____ begin _eqspec.i
> tem _____
    - version 9.2
    - args item
    - ._check_eq_item_name item, `item'
    = ._check_eq_item_name item, nocons
    _____
> _____ begin _eqspec._check_eq_item_n
> ame _____
    - version 9.2
    - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars I
> F IN WGT OTHER NOCONS OFFset EXPosure FREEParam OPTIONS ]
    - if c(rc) error 198
    - if `:list sizeof other' {
    = if 0 {
        local other other_markvars
    }
    - local item `name' `depvars' `indepvars' `if' `in' `wgt' `oth
> er' `nocons' `offset' `exposure' `freeparm' `options'
    = local item nocons
    - if `:list sizeof item' != 1 {
    = if 1 != 1 {
        error 198
    }
    - c_local `c_item' `item'
    = c_local item nocons
    _____
> _____ end _eqspec._check_eq_item_n
> ame _____
    - local value ```.item'''
    = local value `0'''
    - sreturn local value ``value'''
    = sreturn local value `0'''
    - class exit ``value'''
    = class exit `0'''
    _____
> _____ end _eqspec.i
> tem _____
    - class exit ``s(value)'''
    = class exit `0'''
    _____
> _____ end _eqlist
> .eq _____
    = local eq_nocons1 0
    - local eq_offset`i' ``.eqlist'.eq offset `i''

```

```

> _____ begin _eqlist
> .eq _____
    - version 9.2
    - args item idx
    - if ``item'' == "count" {
= if "offset" == "count" {
    sreturn local value ``.n_eq'''
    class exit ``s(value)'''
    }
    - else if 0 < `idx' & `idx' <= `.n_eq' {
= else if 0 < 1 & 1 <= 1 {
    - .eq_list[`idx'].item `item'
= .eq_list[1].item offset
    _____

> _____ begin _eqspec.i
> tem _____
    - version 9.2
    - args item
    - .check_eq_item_name item, `item'
    = .check_eq_item_name item, offset
    _____

> _____ begin _eqspec._check_eq_item_n
> ame _____
    - version 9.2
    - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars I
> F IN WGT OTHER NOCONS OFFset EXPosure FREEParam OPTions ]
    - if c(rc) error 198
    - if `:list sizeof other' {
= if 0 {
    local other other_markvars
    }
    - local item `name' `depvars' `indepvars' `if' `in' `wgt' `oth
> er' `nocons' `offset' `exposure' `freeparm' `options'
    = local item      offset
    - if `:list sizeof item' != 1 {
= if 1 != 1 {
    error 198
    }
    - c_local `c_item' `item'
    = c_local item offset
    _____

> _____ end _eqspec._check_eq_item_n
> ame _____
    - local value ``. `item'''
    = local value `'''

```

```

- sreturn local value ``value'''
= sreturn local value `'''
- class exit ``value'''
= class exit `'''

```

```

> _____ end _eqspec.i
> tem _____
- class exit ``s(value)'''
= class exit `'''

```

```

> _____ end _eqlist
> .eq _____
= local eq_offset1
- local eq_exposure`i' `.`eqlist'.eq exposure `i''

```

```

> _____ begin _eqlist
> .eq _____
- version 9.2
- args item idx
- if ``item'" == "count" {
= if "exposure" == "count" {
sreturn local value ``.n_eq'''
class exit ``s(value)'''
}
- else if 0 < `idx' & `idx' <= `.n_eq' {
= else if 0 < 1 & 1 <= 1 {
- .eq_list[`idx'].item `item'
= .eq_list[1].item exposure

```

```

> _____ begin _eqspec.i
> tem _____
- version 9.2
- args item
- .check_eq_item_name item, `item'
= .check_eq_item_name item, exposure

```

```

> _____ begin _eqspec._check_eq_item_n
> ame _____
- version 9.2
- capture syntax name(name=c_item) [, NAME DEPvars INDEPvars I
> F IN WGT OTHER NOCONS OFFset EXPosure FREEParam OPTions ]
- if c(rc) error 198
- if `:list sizeof other' {
= if 0 {
local other other_markvars
}

```

```

- local item `name' `depvars' `indepvars' `if' `in' `wgt' `oth
> er' `nocons' `offset' `exposure' `freeparm' `options'
    = local item      exposure
    - if `:list sizeof item' != 1 {
    = if 1 != 1 {
        error 198
    }
    - c_local `c_item' `item'
    = c_local item exposure
    _____
> _____ end _eqspec._check_eq_item_n
> ame _____
    - local value ```.`item'```
    = local value ``0```
    - sreturn local value ```.value```
    = sreturn local value ``0```
    - class exit ```.value```
    = class exit ``0```
    _____
> _____ end _eqspec.i
> tem _____
    - class exit ```.s(value)```
    = class exit ``0```
    _____
> _____ end _eqlist
> .eq _____
    = local eq_exposure1 0
    - local eq_freeparm`i' ``.eqlist'.eq freeparm `i'
    _____
> _____ begin _eqlist
> .eq _____
    - version 9.2
    - args item idx
    - if ``item' == "count" {
    = if "freeparm" == "count" {
        sreturn local value ```.n_eq```
        class exit ```.s(value)```
    }
    - else if 0 < `idx' & `idx' <= `.n_eq' {
    = else if 0 < 1 & 1 <= 1 {
        - .eq_list[`idx'].item `item'
        = .eq_list[1].item freeparm
    }
    _____
> _____ begin _eqspec.i
> tem _____
    - version 9.2

```

```

- args item
- ._check_eq_item_name item, `item'
= ._check_eq_item_name item, freeparm

```

```

> _____ begin _eqspec._check_eq_item_n
> ame _____
- version 9.2
- capture syntax name(name=c_item) [, NAME DEPvars INDEPvars I
> F IN WGT OTHER NOCONS OFFset EXPosure FREEParam OPTions ]
- if c(rc) error 198
- if `:list sizeof other' {
= if 0 {
local other other_markvars
}
- local item `name' `depvars' `indepvars' `if' `in' `wgt' `oth
> er' `nocons' `offset' `exposure' `freeparm' `options'
= local item freeparm
- if `:list sizeof item' != 1 {
= if 1 != 1 {
error 198
}
- c_local `c_item' `item'
= c_local item freeparm

```

```

> _____ end _eqspec._check_eq_item_n
> ame _____
- local value ```.`item'```
= local value ``0```
- sreturn local value ```.value```
= sreturn local value ``0```
- class exit ```.value```
= class exit ``0```

```

```

> _____ end _eqspec.i
> tem _____
- class exit ```.s(value)```
= class exit ``0```

```

```

> _____ end _eqlist
> .eq _____
= local eq_freeparm1 0
- local lhs `lhs' `depvars'
= local lhs piq_timing_max
- local eq_names `eq_names' `eq'
= local eq_names piq_timing_max
- local nxvars :list sizeof eq_rhs`i'

```

```

= local nxvars :list sizeof eq_rhs1
- local TMP : copy local eq_rhs`i'
= local TMP : copy local eq_rhs1
- forval j = 1/`nxvars' {
= forval j = 1/11 {
- gettoken xvar TMP : TMP
- local colna ``colna' `eq':`xvar''
= local colna `` piq_timing_max:rule_g''
- }
- gettoken xvar TMP : TMP
- local colna ``colna' `eq':`xvar''
= local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr''
- }
- gettoken xvar TMP : TMP
- local colna ``colna' `eq':`xvar''
= local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr piq_t
> iming_max:estimated''
- }
- gettoken xvar TMP : TMP
- local colna ``colna' `eq':`xvar''
= local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr piq_t
> iming_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx''
- }
- gettoken xvar TMP : TMP
- local colna ``colna' `eq':`xvar''
= local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr piq_t
> iming_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing_max:0b.st
> ky_wg#10.wg_ndx''
- }
- gettoken xvar TMP : TMP
- local colna ``colna' `eq':`xvar''
= local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr piq_t
> iming_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing_max:0b.st
> ky_wg#10.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx''
- }
- gettoken xvar TMP : TMP
- local colna ``colna' `eq':`xvar''
= local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr piq_t
> iming_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing_max:0b.st
> ky_wg#10.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_max:1.stky_wg#
> 1.wg_ndx''
- }
- gettoken xvar TMP : TMP
- local colna ``colna' `eq':`xvar''
= local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr piq_t
> iming_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing_max:0b.st

```

```

> ky_wg#1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_max:1.stky_wg#
> 1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx''
    - }
    - gettoken xvar TMP : TMP
    - local colna ``colna' `eq':`xvar'''
    = local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr piq_t
> iming_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing_max:0b.st
> ky_wg#1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_max:1.stky_wg#
> 1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_max:0b.stky_wg#1
> o.not_wg_ndx''
    - }
    - gettoken xvar TMP : TMP
    - local colna ``colna' `eq':`xvar'''
    = local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr piq_t
> iming_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing_max:0b.st
> ky_wg#1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_max:1.stky_wg#
> 1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_max:0b.stky_wg#1
> o.not_wg_ndx piq_timing_max:1o.stky_wg#0b.not_wg_ndx''
    - }
    - gettoken xvar TMP : TMP
    - local colna ``colna' `eq':`xvar'''
    = local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr piq_t
> iming_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing_max:0b.st
> ky_wg#1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_max:1.stky_wg#
> 1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_max:0b.stky_wg#1
> o.not_wg_ndx piq_timing_max:1o.stky_wg#0b.not_wg_ndx piq_timing_max:1o.stky_
> wg#1o.not_wg_ndx''
    - }
    - if `eq_freeparm`i'' {
    = if 0 {
        if `nxvars' {
            di as err "{it:xvars} not allowed with option {bf:freeparm}"
            exit 198
        }
        if strpos(`"eq"', ":") {
            local colna ``colna' /`eq'''
        }
        else {
            local colna ``colna' /:`eq'''
        }
    }
    - else if !`eq_nocons`i'' {
    = else if !0 {
        - local colna ``colna' `eq':_cons'''
        = local colna `` piq_timing_max:rule_g piq_timing_max:rule_itr piq_t
> iming_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing_max:0b.st

```

```

> ky_wg#1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_max:1.stky_wg#
> 1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_max:0b.stky_wg#1
> o.not_wg_ndx piq_timing_max:1o.stky_wg#0b.not_wg_ndx piq_timing_max:1o.stky_
> wg#1o.not_wg_ndx piq_timing_max:_cons''
- }
- if ``moptobj'' != '' {
= if '' != '' {
  if ``eq_offset`i'' != '' {
    if usubstr(``eq_offset`i'',1,2)=='__' {
      capture clonevar `moptobj`eq_offset`i' = `eq_offset`i'
      local dropmetoo `dropmetoo' `moptobj`eq_offset`i'
    }
  }
}
- }
- if ``moptobj'' != '' {
= if '' != '' {
  foreach y of local lhs {
    if usubstr(``y'',1,2)=='__' {
      capture clonevar `moptobj`y' = `y'
      local tmp `tmp' `moptobj`y'
      local dropmetoo `dropmetoo' `moptobj`y'
    }
    else {
      local tmp `tmp' `y'
    }
  }
  local lhs `tmp'
}
- if `waldtest' > 0 & `:length local lf0' {
= if -1 > 0 & 0 {
  opts_exclusive "waldtest() lf0()"
}
- if `:length local continue' {
= if 0 {
  if !`:length local init' {
    tempname init
    local ub0 `init'
  }
  else tempname ub0
  mat `ub0' = e(b)
  tempname v0 iv0
  mat `v0' = e(V)
  mat `iv0' = syminv(`v0')
  global ML_rank0 = colsof(`v0') - diag0cnt(`iv0')
  if !`:length local lf0' & !missing(e(ll)) {

```



```

        local lf0 `=colsof(`ub0')' `e(ll)'
    }
    local ub0
}
- if `:length local init' {
= if 8 {
- tempname b0
- local dim : list sizeof colna
- matrix `b0' = J(1,`dim',0)
= matrix __00000F = J(1,12,0)
- matrix colna `b0' = `colna'
= matrix colna __00000F = piq_timing_max:rule_g piq_timing_max:rule
> _itr piq_timing_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing
> _max:0b.stky_wg#1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_max:
> 1.stky_wg#1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_max:0b
> .stky_wg#1o.not_wg_ndx piq_timing_max:1o.stky_wg#0b.not_wg_ndx piq_timing_ma
> x:1o.stky_wg#1o.not_wg_ndx piq_timing_max:_cons
- `vv' _mkvec `b0', from(`init') update first error("initial vector"
> )
= version 18.5: _mkvec __00000F, from(__00000B) update first error("
> initial vector")
}
}
> ----- begin _mk
> vec -----
- local vv : display "version " string(_caller()) ":"
- version 6
- gettoken matout 0 : 0, parse(", ")
- if "`matout'"==" | "`matout'"==" {"
= if "__00000F"==" | "__00000F"==" {"
error 198
}
- syntax [, FROM(str) UPdate COLnames(str) ERRor(str) FIRST ]
- if "`update'"!=" {
= if "update"!=" {
- if "`colname'"!=" {
= if ""!=" {
di in red "update and colnames() cannot both be " "specified"
exit 198
}
- capture local colname : colfullnames `matout'
= capture local colname : colfullnames __00000F
- if _rc {
di in red "matrix `matout' not found"
exit 111
}
- if rowsof(matrix(`matout')) != 1 {

```

```

= if rowsof(matrix(__00000F)) != 1 {
  di in red "`matout' matrix to be updated must be " "a row vector
> "
  exit 503
}
- local matin `matout'
= local matin __00000F
- }
- if ``error'!=' {
= if ``initial vector'!=' {
- local error ``error': ''
= local error ``initial vector: ''
- }
- tempname mat
- if ``from'!=' {
= if ``__00000B'!=' {
- From `from'
= From __00000B
}

> _____ begin _mkvec.F
> rom _____
  - gettoken from 0 : 0, parse(",") bind
  - sret clear
  - sret local from `from'
= sret local from __00000B
  - if ``0'!=' {
= if ``'!=' {
    syntax [, COPY SKIP ]
  }
  - sret local copy `copy'
= sret local copy
  - sret local skip `skip'
= sret local skip
}

> _____ end _mkvec.F
> rom _____
  - local copy `s(copy)'
= local copy
  - local skip `s(skip)'
= local skip
  - if ``copy'!=' {
= if ``'!=' {
    CopyMat `mat' ``error' `s(from)'
    if ``colname'!=' {
      local dim : list sizeof colname
      if `dim' != colsof(matrix(`mat')) {

```

```

di in red ``error'matrix must '' be dimension '' `dim'
exit 503
}
`vv' mat colnames `mat' = `colname'
}
}
- else {
- `vv' BuildMat `mat' ``error'' skip'' `s(from)'
= version 18.5: BuildMat __00000G ``initial vector: '' '' __00000B
}
}
> _____ begin _mkvec.Build
> Mat _____
- local vv : display "version " string(_caller()) ":"
- version 6
- args matall error skip
- macro shift 3
- tokenize ``*''', parse(" =")
= tokenize ``__00000B'', parse(" =")
- tempname matadd
- local i 1
- while ``i''!='' {
= while "__00000B''!='' {
- local k = `i' + 1
= local k = 1 + 1
- if ``k''=='' {
= if ""=='' {
local j = `i' + 2
`vv' MkMat `matadd' ``i'' `j'' `skip'
local i = `i' + 3
}
- else {
- ChkMat `matadd' ``i'' ``error''
= ChkMat __00000H __00000B ``initial vector: ''
}
}
}
> _____ begin _mkvec.Chk
> Mat _____
- args matout matin error
- capture di matrix(`matin'[1,1])
= capture di matrix(__00000B[1,1])
- if _rc {
capture confirm number `matin'
if _rc {
di in red ``error'matrix `matin' not found''
exit 111
}
di in red ``error'list of numbers requires copy option''

```

```

        exit 198
    }
    - if matrix(rowsof(`matin')!=1 & colsof(`matin')!=1) {
    = if matrix(rowsof(__00000B)!=1 & colsof(__00000B)!=1) {
        di in red "`matin' " matrix(rowsof(`matin')) " x " matrix(co
> lsof(`matin')) " is not a vector"
        exit 503
    }
    - if matrix(rowsof(`matin')) == 1 {
    = if matrix(rowsof(__00000B)) == 1 {
        - mat `matout' = `matin'
        = mat __00000H = __00000B
        - }
        - else mat `matout' = `matin''
        = else mat __00000H = __00000B'
    }
}


---


> _____ end _mkvec.Chk
> Mat _____
    - local i = `i' + 1
    = local i = 1 + 1
    - }
    - mat `matall' = nullmat(`matall') , `matadd'
    = mat __00000G = nullmat(__00000G) , __00000H
    - }
    - while "`i'"!=" " {
    = while ""!=" " {
        local k = `i' + 1
        if "`k'"==" " {
            local j = `i' + 2
            `vv' MkMat `matadd' ``i'' ``j'' `skip'
            local i = `i' + 3
        }
        else {
            ChkMat `matadd' ``i'' ``error''
            local i = `i' + 1
        }
        mat `matall' = nullmat(`matall') , `matadd'
    }
}


---


> _____ end _mkvec.Build
> Mat _____
    - if ``colname'""!=" " {
    = if ``piq_timing_max:rule_g piq_timing_max:rule_itr piq_timing_ma
> x:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing_max:0b.stky_wg#1o
> .wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_max:1.stky_wg#1.wg_ndx
> piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_max:0b.stky_wg#1o.not_wg

```

```

> _ndx piq_timing_max:10.stky_wg#0b.not_wg_ndx piq_timing_max:10.stky_wg#10.no
> t_wg_ndx piq_timing_max:_cons""!=" {
    - `vv' ChkNames `mat' ""`matin'"" ""`colname'"" ""`error'"" ""`skip'""
> ""`first'""
    = version 18.5: ChkNames __00000G "__00000F" `piq_timing_max:rule
> _g piq_timing_max:rule_itr piq_timing_max:estimated piq_timing_max:0b.stky_w
> g#0b.wg_ndx piq_timing_max:0b.stky_wg#10.wg_ndx piq_timing_max:1.stky_wg#0b.
> wg_ndx piq_timing_max:1.stky_wg#1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg
> _ndx piq_timing_max:0b.stky_wg#10.not_wg_ndx piq_timing_max:10.stky_wg#0b.no
> t_wg_ndx piq_timing_max:10.stky_wg#10.not_wg_ndx piq_timing_max:_cons"" `in
> itial vector: "" "" "first"

> _____ begin _mkvec.ChkNa
> mes _____
    - local vv : display "version " string(_caller()) ":"
    - version 6
    - args mat matin names error skip first
    - local dim = colsof(matrix(`mat'))
    = local dim = colsof(matrix(__00000G))
    - if ""`first'""!=" {
    = if "first"!=" {
    - gettoken name : names
    - local eq1 = bsubstr(`""`name'""',1,index(`""`name'""',":"))
    = local eq1 = bsubstr(`piq_timing_max:rule_g'""',1,index(`piq_ti
> ming_max:rule_g'""',":"))
    - }
    - tempname new fill x
    - local k : list sizeof names
    - if ""`matin'""!=" {
    = if "__00000F"!=" {
    - mat `new' = `matin'
    = mat __00000H = __00000F
    - }
    - else {
    mat `new' = J(1,`k',0)
    `vv' mat colnames `new' = `names'
    }
    - mat `fill' = J(1,`k',0)
    = mat __00000I = J(1,12,0)
    - local i 1
    - while `i' <= `dim' {
    = while 1 <= 12 {
    - mat `x' = `mat'[1,`i'..`i']
    = mat __00000J = __00000G[1,1..1]
    - local eq : coleq `x'
    = local eq : coleq __00000J

```

```

- local name : colname `x'
= local name : colname __00000J
- if "`eq'" == "/" {
= if "_" == "/" {
    local spec "/`name'"
  }
- else {
- local spec "`eq':`name'"
= local spec "_:rule_g"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:rule_g"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse rule_g, noomit
- if c(rc) == 0 {
- if r(omit) {
    local oname ``r(stripe)''
    local ospec "`eq':`oname'"
  }
- }
- `vv' local j = colnumb(`new',``spec'')
= version 18.5: local j = colnumb(__00000H,`_:rule_g')
- if `j' == . & "`oname'" != "" {
= if 1 == . & "" != "" {
    `vv' local j = colnumb(`new',``ospec'')
  }
- if `j' == . & "`sspec'" != "" {
= if 1 == . & "/_:rule_g" != "" {
    `vv' local j = colnumb(`new',``sspec'')
  }
- if `j'==. & ``eq'=="_" & ``eq1'!='' {
= if 1==. & ``_'=="_" & ``piq_timing_max:'!='' {
    `vv' local j = colnumb(`new',``eq1``name'')
    if `j' == . & "`oname'" != "" {
      `vv' local j = colnumb(`new',``eq1``oname'')
    }
  }
- if `j'!=. {
= if 1!=. {
- if `fill'[1,`j'] {
= if __00000I[1,1] {

```

```

        _ms_parse_parts `name'
        if !r(omit) {
            if "`eq'"=="_" {
                di in red `""error'duplicate "' `"'entries for `name' found"'
            }
            else di in red `""error'""' `"'duplicate entries for `eq':`name'
> found"'

        exit 507
        }
        else if !missing(`new'[1,`j']) {
            matrix `mat'[1,`i'] = `new'[1,`j']
        }
        }
        - else mat `fill'[1,`j'] = 1
        = else mat __00000I[1,1] = 1
        - mat `new'[1,`j'] = `mat'[1,`i']
        = mat __00000H[1,1] = __00000G[1,1]
        - }
        - else if "`skip'"==" " {
        = else if ""==" " {
            if "`eq'"=="_" {
                local spec : copy local name
            }
            di in red `""error'extra parameter "' `""`spec' found"' _n "spe
> cify skip option if necessary"
            exit 111
        }
        - local i = `i' + 1
        = local i = 1 + 1
        - }
        - while `i' <= `dim' {
        = while 2 <= 12 {
            - mat `x' = `mat'[1,`i'..`i']
            = mat __00000J = __00000G[1,2..2]
            - local eq : coleq `x'
            = local eq : coleq __00000J
            - local name : colname `x'
            = local name : colname __00000J
            - if "`eq'" == "/" {
            = if "_" == "/" {
                local spec "/"`name'
            }
            - else {
            - local spec "`eq':`name'"
            = local spec "_:rule_itr"
            - if (usubstr("`eq'",1,1) != "/") {

```

```

= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:rule_itr"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse rule_itr, noomit
- if c(rc) == 0 {
- if r(omit) {
  local oname ``r(stripe)''
  local ospec ``eq':`oname'
  }
- }
- `vv' local j = colnumb(`new',``spec'')
= version 18.5: local j = colnumb(__00000H,``_:rule_itr'')
- if `j' == . & ``oname' != "" {
= if 2 == . & "" != "" {
  `vv' local j = colnumb(`new',``ospec'')
  }
- if `j' == . & ``sspec' != "" {
= if 2 == . & "/_:rule_itr" != "" {
  `vv' local j = colnumb(`new',``sspec'')
  }
- if `j'==. & ``eq'=="_" & ``eq1'!="" {
= if 2==. & ``_'=="_" & ``piq_timing_max:'!="" {
  `vv' local j = colnumb(`new',``eq1``name'')
  if `j' == . & ``oname' != "" {
    `vv' local j = colnumb(`new',``eq1``oname'')
  }
}
- if `j'!=. {
= if 2!=. {
- if `fill'[1,`j'] {
= if __00000I[1,2] {
  _ms_parse_parts `name'
  if !r(omit) {
    if ``eq'=="_" {
      di in red ``error'duplicate "" ``entries for `name' found''
    }
    else di in red ``error'' ``duplicate entries for `eq':`name'
> found''
  }
  exit 507
}
else if !missing(`new'[1,`j']) {

```



```

        matrix `mat'[1,`i'] = `new'[1,`j']
    }
}
- else mat `fill'[1,`j'] = 1
= else mat __00000I[1,2] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,2] = __00000G[1,2]
- }
- else if "`skip'"==" {
= else if ""==" {
    if "`eq'"=="_" {
        local spec : copy local name
    }
    di in red ``error'extra parameter "' `"'spec' found"' _n "spe
> cify skip option if necessary"
    exit 111
}
- local i = `i' + 1
= local i = 2 + 1
- }
- while `i' <= `dim' {
= while 3 <= 12 {
- mat `x' = `mat'[1,`i'..`i']
= mat __00000J = __00000G[1,3..3]
- local eq : coleq `x'
= local eq : coleq __00000J
- local name : colname `x'
= local name : colname __00000J
- if "`eq'" == "/" {
= if "_" == "/" {
    local spec "/`name'"
}
- else {
- local spec "`eq':`name'"
= local spec "_:estimated"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:estimated"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse estimated, noomit
- if c(rc) == 0 {

```

```

- if r(omit) {
  local oname ``r(stripe)''
  local ospec ``eq':`oname''
}
- }
- `vv' local j = colnumb(`new',``spec'')
= version 18.5: local j = colnumb(__00000H,``_:estimated'')
- if `j' == . & ``oname'' != "" {
= if 3 == . & "" != "" {
  `vv' local j = colnumb(`new',``ospec'')
}
- if `j' == . & ``sspec'' != "" {
= if 3 == . & "/_:estimated" != "" {
  `vv' local j = colnumb(`new',``sspec'')
}
- if `j'==. & ``eq''=="_" & ``eq1''!="" {
= if 3==. & ``_''=="_" & ``piq_timing_max:''!="" {
  `vv' local j = colnumb(`new',``eq1``name'')
  if `j' == . & ``oname'' != "" {
    `vv' local j = colnumb(`new',``eq1``oname'')
  }
}
- if `j'!=. {
= if 3!=. {
- if `fill'[1,`j'] {
= if __00000I[1,3] {
  _ms_parse_parts `name'
  if !r(omit) {
    if ``eq''=="_" {
      di in red ``error'duplicate "" ``entries for `name' found''
    }
    else di in red ``error'' ``duplicate entries for `eq':`name'
> found''
  }
  exit 507
}
else if !missing(`new'[1,`j']) {
  matrix `mat'[1,`i'] = `new'[1,`j']
}
}
- else mat `fill'[1,`j'] = 1
= else mat __00000I[1,3] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,3] = __00000G[1,3]
- }
- else if ``skip''="" {
= else if ""="" {

```

```

        if "`eq'"=="_" {
            local spec : copy local name
        }
        di in red `"'error'extra parameter "' `"'spec' found"' _n "spe
> cify skip option if necessary"
        exit 111
    }
    - local i = `i' + 1
    = local i = 3 + 1
    - }
    - while `i' <= `dim' {
    = while 4 <= 12 {
    - mat `x' = `mat'[1,`i'..`i']
    = mat __00000J = __00000G[1,4..4]
    - local eq : coleq `x'
    = local eq : coleq __00000J
    - local name : colname `x'
    = local name : colname __00000J
    - if "`eq'" == "/" {
    = if "_" == "/" {
        local spec "/"`name'
    }
    - else {
    - local spec "`eq':`name'"
    = local spec "_:0b.stky_wg#0b.wg_ndx"
    - if (usubstr("`eq'",1,1) != "/") {
    = if (usubstr("_",1,1) != "/") {
    - local sspec "/"`eq':`name'"
    = local sspec "/_:0b.stky_wg#0b.wg_ndx"
    - }
    - }
    - local oname
    - local ospec
    - capture _msparse `name', noomit
    = capture _msparse 0b.stky_wg#0b.wg_ndx, noomit
    - if c(rc) == 0 {
    - if r(omit) {
    - local oname `"'r(stripe)'"
    = local oname `"0.stky_wg#0.wg_ndx"'
    - local ospec "`eq':`oname'"
    = local ospec "_:0.stky_wg#0.wg_ndx"
    - }
    - }
    - `vv' local j = colnumb(`new',`"'spec'")
    = version 18.5: local j = colnumb(__00000H,`"_:0b.stky_wg#0b.wg_
> ndx'')

```

```

- if `j' == . & "`oname'" != "" {
= if 4 == . & "0.stky_wg#0.wg_ndx" != "" {
  `vv' local j = colnumb(`new',``ospec'')
}
- if `j' == . & "`sspec'" != "" {
= if 4 == . & "/_#0b.stky_wg#0b.wg_ndx" != "" {
  `vv' local j = colnumb(`new',``sspec'')
}
- if `j'==. & ``eq'""=="_" & ``eq1'""!="" {
= if 4==. & ``_'""=="_" & ``piq_timing_max:'""!="" {
  `vv' local j = colnumb(`new',``eq1'`name'')
  if `j' == . & "`oname'" != "" {
    `vv' local j = colnumb(`new',``eq1'`oname'')
  }
}
- if `j'!=. {
= if 4!=. {
- if `fill'[1,`j'] {
= if __00000I[1,4] {
  _ms_parse_parts `name'
  if !r(omit) {
    if "`eq'""=="_" {
      di in red ``error'duplicate "' `entries for `name' found"'
    }
    else di in red ``error'"" `duplicate entries for `eq':`name'
> found"'
  }
  exit 507
}
else if !missing(`new'[1,`j']) {
  matrix `mat'[1,`i'] = `new'[1,`j']
}
}
- else mat `fill'[1,`j'] = 1
= else mat __00000I[1,4] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,4] = __00000G[1,4]
- }
- else if "`skip'""=="" {
= else if ""=="" {
  if "`eq'""=="_" {
    local spec : copy local name
  }
  di in red ``error'extra parameter "' ``spec' found"' _n "spe
> cify skip option if necessary"
  exit 111
}

```

```

- local i = `i' + 1
= local i = 4 + 1
- }
- while `i' <= `dim' {
= while 5 <= 12 {
- mat `x' = `mat'[1,`i'..`i']
= mat __00000J = __00000G[1,5..5]
- local eq : coleq `x'
= local eq : coleq __00000J
- local name : colname `x'
= local name : colname __00000J
- if "`eq'" == "/" {
= if "_" == "/" {
    local spec "/"`name'"
    }
- else {
- local spec "`eq':`name'"
= local spec "_:0b.stky_wg#1o.wg_ndx"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/"`eq':`name'"
= local sspec "/_:0b.stky_wg#1o.wg_ndx"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse 0b.stky_wg#1o.wg_ndx, noomit
- if c(rc) == 0 {
- if r(omit) {
- local oname ``r(stripe)'"
= local oname ``0.stky_wg#1.wg_ndx'"
- local ospec "`eq':`oname'"
= local ospec "_:0.stky_wg#1.wg_ndx"
- }
- }
- `vv' local j = colnumb(`new',``spec'')
= version 18.5: local j = colnumb(__00000H,``_:0b.stky_wg#1o.wg_
> ndx'')
- if `j' == . & "`oname'" != "" {
= if 5 == . & "0.stky_wg#1.wg_ndx" != "" {
    `vv' local j = colnumb(`new',``ospec'')
    }
- if `j' == . & "`sspec'" != "" {
= if 5 == . & "/_:0b.stky_wg#1o.wg_ndx" != "" {
    `vv' local j = colnumb(`new',``sspec'')

```

```

    }
- if `j'==. & ``eq'=="_" & ``eq1'!="" {
= if 5==. & ``_'=="_" & ``piq_timing_max:'!="" {
  `vv' local j = colnumb(`new',``eq1'`name'`)
  if `j' == . & ``oname' != "" {
    `vv' local j = colnumb(`new',``eq1'`oname'`)
  }
}
- if `j'!=. {
= if 5!=. {
- if `fill'[1,`j'] {
= if __00000I[1,5] {
  _ms_parse_parts `name'
  if !r(omit) {
    if ``eq'=="_" {
      di in red ``error'duplicate "' `entries for `name' found"'
    }
    else di in red ``error'"" `duplicate entries for `eq':`name'
> found"'

    exit 507
  }
  else if !missing(`new'[1,`j']) {
    matrix `mat'[1,`i'] = `new'[1,`j']
  }
}
- else mat `fill'[1,`j'] = 1
= else mat __00000I[1,5] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,5] = __00000G[1,5]
- }
- else if ``skip'==" " {
= else if ""==" " {
  if ``eq'=="_" {
    local spec : copy local name
  }
  di in red ``error'extra parameter "' ``spec' found"' _n "spe
> cify skip option if necessary"
  exit 111
}
- local i = `i' + 1
= local i = 5 + 1
- }
- while `i' <= `dim' {
= while 6 <= 12 {
- mat `x' = `mat'[1,`i'..`i']
= mat __00000J = __00000G[1,6..6]

```

```

- local eq : coleq `x'
= local eq : coleq __00000J
- local name : colname `x'
= local name : colname __00000J
- if "`eq'" == "/" {
= if "_" == "/" {
    local spec "/`name'"
  }
- else {
- local spec "`eq':`name'"
= local spec "_:1.stky_wg#0b.wg_ndx"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:1.stky_wg#0b.wg_ndx"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse 1.stky_wg#0b.wg_ndx, noomit
- if c(rc) == 0 {
- if r(omit) {
    local oname ``r(stripe)''
    local ospec "`eq':`oname'"
  }
- }
- `vv' local j = colnumb(`new',``spec'')
= version 18.5: local j = colnumb(__00000H,`_:1.stky_wg#0b.wg_n
> dx'')
- if `j' == . & "`oname'" != "" {
= if 6 == . & "" != "" {
    `vv' local j = colnumb(`new',``ospec'')
  }
- if `j' == . & "`sspec'" != "" {
= if 6 == . & "/_:1.stky_wg#0b.wg_ndx" != "" {
    `vv' local j = colnumb(`new',``sspec'')
  }
- if `j'==. & ``eq'=="_" & ``eq1'!="" {
= if 6==. & ``_'=="_" & ``piq_timing_max:'!="" {
    `vv' local j = colnumb(`new',``eq1`name'')
    if `j' == . & "`oname'" != "" {
      `vv' local j = colnumb(`new',``eq1`oname'')
    }
  }
- if `j'!=. {

```

```

= if 6!=. {
- if `fill'[1,`j'] {
= if __00000I[1,6] {
  _ms_parse_parts `name'
  if !r(omit) {
    if "`eq'"=="_" {
      di in red ``error'duplicate "' `entries for `name' found"'
    }
    else di in red ``error'"" `duplicate entries for `eq':`name'
> found"'

    exit 507
  }
  else if !missing(`new'[1,`j']) {
    matrix `mat'[1,`i'] = `new'[1,`j']
  }
}
- else mat `fill'[1,`j'] = 1
= else mat __00000I[1,6] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,6] = __00000G[1,6]
- }
- else if "`skip'"==" " {
= else if ""==" " {
  if "`eq'"=="_" {
    local spec : copy local name
  }
  di in red ``error'extra parameter "' ``spec' found"' _n "spe
> cify skip option if necessary"
  exit 111
}
- local i = `i' + 1
= local i = 6 + 1
- }
- while `i' <= `dim' {
= while 7 <= 12 {
- mat `x' = `mat'[1,`i'..`i']
= mat __00000J = __00000G[1,7..7]
- local eq : coleq `x'
= local eq : coleq __00000J
- local name : colname `x'
= local name : colname __00000J
- if "`eq'" == "/" {
= if "_" == "/" {
  local spec "/"`name'
}
- else {

```



```

- local spec "`eq':`name'"
= local spec "_:1.stky_wg#1.wg_ndx"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:1.stky_wg#1.wg_ndx"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse 1.stky_wg#1.wg_ndx, noomit
- if c(rc) == 0 {
- if r(omit) {
  local oname ``r(stripe)''
  local ospec "`eq':`oname'"
}
- }
- `vv' local j = colnumb(`new',``spec'')
= version 18.5: local j = colnumb(__00000H,``_:1.stky_wg#1.wg_nd
> x'')

- if `j' == . & "`oname'" != "" {
= if 7 == . & "" != "" {
  `vv' local j = colnumb(`new',``ospec'')
}
- if `j' == . & "`sspec'" != "" {
= if 7 == . & "/_:1.stky_wg#1.wg_ndx" != "" {
  `vv' local j = colnumb(`new',``sspec'')
}
- if `j'==. & ``eq'=="_" & ``eq1'!="" {
= if 7==. & ``_'=="_" & ``piq_timing_max:'"!="" {
  `vv' local j = colnumb(`new',``eq1`name'')
  if `j' == . & "`oname'" != "" {
    `vv' local j = colnumb(`new',``eq1`oname'')
  }
}
- if `j'!=. {
= if 7!=. {
- if `fill'[1,`j'] {
= if __00000I[1,7] {
  _ms_parse_parts `name'
  if !r(omit) {
    if "`eq'=="_" {
      di in red ``error'duplicate "' `entries for `name' found"
    }
    else di in red ``error'"" `duplicate entries for `eq':`name'

```

```

> found''
    exit 507
    }
    else if !missing(`new'[1,`j']) {
    matrix `mat'[1,`i'] = `new'[1,`j']
    }
    }
- else mat `fill'[1,`j'] = 1
= else mat __00000I[1,7] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,7] = __00000G[1,7]
- }
- else if ``skip'""=="" {
= else if ""=="" {
    if ``eq'""=="_" {
    local spec : copy local name
    }
    di in red ``error'extra parameter "' ``spec' found"' _n "spe
> cify skip option if necessary"
    exit 111
    }
- local i = `i' + 1
= local i = 7 + 1
- }
- while `i' <= `dim' {
= while 8 <= 12 {
- mat `x' = `mat'[1,`i'..`i']
= mat __00000J = __00000G[1,8..8]
- local eq : coleq `x'
= local eq : coleq __00000J
- local name : colname `x'
= local name : colname __00000J
- if ``eq'"" == "/" {
= if "_" == "/" {
    local spec "/"`name'""
    }
- else {
- local spec ``eq':`name'""
= local spec "_:0b.stky_wg#0b.not_wg_ndx"
- if (usubstr(`eq'"" ,1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/"`eq':`name'""
= local sspec "/"_:0b.stky_wg#0b.not_wg_ndx"
- }
- }
- local oname

```

```

- local ospec
- capture _msparse `name', noomit
= capture _msparse 0b.stky_wg#0b.not_wg_ndx, noomit
- if c(rc) == 0 {
- if r(omit) {
- local oname ``r(stripe)''
= local oname ``0.stky_wg#0.not_wg_ndx''
- local ospec ``eq':`oname''
= local ospec ``_:0.stky_wg#0.not_wg_ndx''
- }
- }
- `vv' local j = colnumb(`new',``spec'')
= version 18.5: local j = colnumb(__00000H,``_:0b.stky_wg#0b.not
> _wg_ndx'')
- if `j' == . & ``oname'' != "" {
= if 8 == . & "0.stky_wg#0b.not_wg_ndx" != "" {
`vv' local j = colnumb(`new',``ospec'')
}
- if `j' == . & ``sspec'' != "" {
= if 8 == . & "/_:0b.stky_wg#0b.not_wg_ndx" != "" {
`vv' local j = colnumb(`new',``sspec'')
}
- if `j'==. & ``eq''=="_" & ``eq1''!="" {
= if 8==. & ``_'=="_" & ``piq_timing_max:''!="" {
`vv' local j = colnumb(`new',``eq1`name'')
if `j' == . & ``oname'' != "" {
`vv' local j = colnumb(`new',``eq1`oname'')
}
}
- if `j'!=. {
= if 8!=. {
- if `fill'[1,`j'] {
= if __00000I[1,8] {
_ms_parse_parts `name'
if !r(omit) {
if ``eq''=="_" {
di in red ``error'duplicate ''`entries for `name' found''
}
else di in red ``error'' ``duplicate entries for `eq':`name'
> found''

exit 507
}
else if !missing(`new'[1,`j']) {
matrix `mat'[1,`i'] = `new'[1,`j']
}
}
}

```

```

- else mat `fill'[1,`j'] = 1
= else mat __00000I[1,8] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,8] = __00000G[1,8]
- }
- else if ``skip'""=="" {
= else if ""=="" {
    if ``eq'""=="_" {
        local spec : copy local name
    }
    di in red ``error'extra parameter "' ``spec' found"' _n "spe
> cify skip option if necessary"
    exit 111
}
- local i = `i' + 1
= local i = 8 + 1
- }
- while `i' <= `dim' {
= while 9 <= 12 {
- mat `x' = `mat'[1,`i'..`i']
= mat __00000J = __00000G[1,9..9]
- local eq : coleq `x'
= local eq : coleq __00000J
- local name : colname `x'
= local name : colname __00000J
- if ``eq'"" == "/" {
= if "_" == "/" {
    local spec "/`name'"
}
- else {
- local spec ``eq':`name'"
= local spec "_:0b.stky_wg#1o.not_wg_ndx"
- if (usubstr("eq",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:0b.stky_wg#1o.not_wg_ndx"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse 0b.stky_wg#1o.not_wg_ndx, noomit
- if c(rc) == 0 {
- if r(omit) {
- local oname ``r(stripe)'"
= local oname ``0.stky_wg#1.not_wg_ndx'"

```

```

- local ospec "`eq':`oname'"
= local ospec "_:0.stky_wg#1.not_wg_ndx"
- }
- }
- `vv' local j = colnumb(`new',``spec'')
= version 18.5: local j = colnumb(__00000H,``_:0b.stky_wg#1o.not
> _wg_ndx'')
- if `j' == . & ``oname' != "" {
= if 9 == . & "0.stky_wg#1.not_wg_ndx" != "" {
  `vv' local j = colnumb(`new',``ospec'')
  }
- if `j' == . & ``sspec' != "" {
= if 9 == . & "/_:0b.stky_wg#1o.not_wg_ndx" != "" {
  `vv' local j = colnumb(`new',``sspec'')
  }
- if `j'==. & ``eq'=="_" & ``eq1'!="" {
= if 9==. & ``_'=="_" & ``piq_timing_max:'!="" {
  `vv' local j = colnumb(`new',``eq1`name'')
  if `j' == . & ``oname' != "" {
    `vv' local j = colnumb(`new',``eq1`oname'')
  }
}
- if `j'!=. {
= if 9!=. {
- if `fill'[1,`j'] {
= if __00000I[1,9] {
  _ms_parse_parts `name'
  if !r(omit) {
    if ``eq'=="_" {
      di in red ``error'duplicate "'`"entries for `name' found"'
    }
    else di in red ``error'""' "duplicate entries for `eq':`name'
> found"'
  }
  exit 507
}
else if !missing(`new'[1,`j']) {
  matrix `mat'[1,`i'] = `new'[1,`j']
}
}
- else mat `fill'[1,`j'] = 1
= else mat __00000I[1,9] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,9] = __00000G[1,9]
- }
- else if ``skip'==" " {
= else if ""==" " {

```

```

        if "`eq'"=="_" {
        local spec : copy local name
        }
        di in red `"'error'extra parameter "' `"'spec' found"' _n "spe
> cify skip option if necessary"
        exit 111
        }
        - local i = `i' + 1
        = local i = 9 + 1
        - }
        - while `i' <= `dim' {
        = while 10 <= 12 {
        - mat `x' = `mat'[1,`i'..`i']
        = mat __00000J = __00000G[1,10..10]
        - local eq : coleq `x'
        = local eq : coleq __00000J
        - local name : colname `x'
        = local name : colname __00000J
        - if "`eq'" == "/" {
        = if "_" == "/" {
            local spec "/"`name'"
        }
        - else {
        - local spec "`eq':`name'"
        = local spec "_:1o.stky_wg#0b.not_wg_ndx"
        - if (usubstr("`eq'",1,1) != "/") {
        = if (usubstr("_",1,1) != "/") {
        - local sspec "/"`eq':`name'"
        = local sspec "/_:1o.stky_wg#0b.not_wg_ndx"
        - }
        - }
        - local oname
        - local ospec
        - capture _msparse `name', noomit
        = capture _msparse 1o.stky_wg#0b.not_wg_ndx, noomit
        - if c(rc) == 0 {
        - if r(omit) {
        - local oname `"'r(stripe)'"
        = local oname `"1.stky_wg#0.not_wg_ndx"'
        - local ospec "`eq':`oname'"
        = local ospec "_:1.stky_wg#0.not_wg_ndx"
        - }
        - }
        - `vv' local j = colnumb(`new',`"'spec'")
        = version 18.5: local j = colnumb(__00000H,`"_:1o.stky_wg#0b.not
> _wg_ndx"'')

```

```

- if `j' == . & "`oname'" != "" {
= if 10 == . & "1.stky_wg#0.not_wg_ndx" != "" {
  `vv' local j = colnumb(`new',``ospec'')
}
- if `j' == . & "`sspec'" != "" {
= if 10 == . & "/_:10.stky_wg#0b.not_wg_ndx" != "" {
  `vv' local j = colnumb(`new',``sspec'')
}
- if `j'==. & ``eq'""=="_" & ``eq1'""!="" {
= if 10==. & ``_'""=="_" & ``piq_timing_max:'""!="" {
  `vv' local j = colnumb(`new',``eq1'`name'')
  if `j' == . & "`oname'" != "" {
    `vv' local j = colnumb(`new',``eq1'`oname'')
  }
}
- if `j'!=. {
= if 10!=. {
- if `fill'[1,`j'] {
= if __00000I[1,10] {
  _ms_parse_parts `name'
  if !r(omit) {
    if "`eq'""=="_" {
      di in red ``error'duplicate "' `entries for `name' found"'
    }
    else di in red ``error'"" `duplicate entries for `eq':`name'
> found"'
  }
  exit 507
}
else if !missing(`new'[1,`j']) {
  matrix `mat'[1,`i'] = `new'[1,`j']
}
}
- else mat `fill'[1,`j'] = 1
= else mat __00000I[1,10] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,10] = __00000G[1,10]
- }
- else if "`skip'""="" {
= else if ""="" {
  if "`eq'""=="_" {
    local spec : copy local name
  }
  di in red ``error'extra parameter "' ``spec' found"' _n "spe
> cify skip option if necessary"
  exit 111
}

```

```

- local i = `i' + 1
= local i = 10 + 1
- }
- while `i' <= `dim' {
= while 11 <= 12 {
- mat `x' = `mat'[1,`i'..`i']
= mat __00000J = __00000G[1,11..11]
- local eq : coleq `x'
= local eq : coleq __00000J
- local name : colname `x'
= local name : colname __00000J
- if "`eq'" == "/" {
= if "_" == "/" {
    local spec "/"`name'"
  }
- else {
- local spec "`eq':`name'"
= local spec "_:10.stky_wg#10.not_wg_ndx"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/"`eq':`name'"
= local sspec "/_:10.stky_wg#10.not_wg_ndx"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse 10.stky_wg#10.not_wg_ndx, noomit
- if c(rc) == 0 {
- if r(omit) {
- local oname ``r(stripe)'"
= local oname ``1.stky_wg#1.not_wg_ndx'"
- local ospec "`eq':`oname'"
= local ospec "_:1.stky_wg#1.not_wg_ndx"
- }
- }
- `vv' local j = colnumb(`new',``spec'')
= version 18.5: local j = colnumb(__00000H,``_:10.stky_wg#10.not
> _wg_ndx'')
- if `j' == . & "`oname'" != "" {
= if 11 == . & "1.stky_wg#1.not_wg_ndx" != "" {
    `vv' local j = colnumb(`new',``ospec'')
  }
- if `j' == . & "`sspec'" != "" {
= if 11 == . & "/_:10.stky_wg#10.not_wg_ndx" != "" {
    `vv' local j = colnumb(`new',``sspec'')

```



```

    }
- if `j'==. & ```eq'""=="_" & ```eq1'""!="" {
= if 11==. & ``_""=="_" & ``piq_timing_max:""!="" {
  `vv' local j = colnumb(`new',```eq1'`name'`)
  if `j' == . & ```oname'"" != "" {
    `vv' local j = colnumb(`new',```eq1'`oname'`)
  }
}
- if `j'!=. {
= if 11!=. {
- if `fill'[1,`j'] {
= if __00000I[1,11] {
  _ms_parse_parts `name'
  if !r(omit) {
    if ```eq'""=="_" {
      di in red ```error'duplicate "" ```entries for `name' found''
    }
    else di in red ```error'"" ``duplicate entries for `eq':`name'
> found''

    exit 507
  }
  else if !missing(`new'[1,`j']) {
    matrix `mat'[1,`i'] = `new'[1,`j']
  }
}
- else mat `fill'[1,`j'] = 1
= else mat __00000I[1,11] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,11] = __00000G[1,11]
- }
- else if ```skip'""=="" {
= else if ""=="" {
  if ```eq'""=="_" {
    local spec : copy local name
  }
  di in red ```error'extra parameter "" ```spec' found'' _n "spe
> cify skip option if necessary"
  exit 111
}
- local i = `i' + 1
= local i = 11 + 1
- }
- while `i' <= `dim' {
= while 12 <= 12 {
- mat `x' = `mat'[1,`i'..`i']
= mat __00000J = __00000G[1,12..12]

```

```

- local eq : coleq `x'
= local eq : coleq __00000J
- local name : colname `x'
= local name : colname __00000J
- if "`eq'" == "/" {
= if "_" == "/" {
    local spec "/"`name'"
  }
- else {
- local spec "`eq':`name'"
= local spec ":_cons"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/"`eq':`name'"
= local sspec "/_:_cons"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse _cons, noomit
- if c(rc) == 0 {
- if r(omit) {
    local oname ``r(stripe)''
    local ospec "`eq':`oname'"
  }
- }
- `vv' local j = colnumb(`new',``spec'')
= version 18.5: local j = colnumb(__00000H,``:_cons'')
- if `j' == . & ``oname'" != "" {
= if 12 == . & "" != "" {
    `vv' local j = colnumb(`new',``ospec'')
  }
- if `j' == . & ``sspec'" != "" {
= if 12 == . & "/_:_cons" != "" {
    `vv' local j = colnumb(`new',``sspec'')
  }
- if `j'==. & ``eq'""=="_" & ``eq1'""!="" {
= if 12==. & ``_'""=="_" & ``piq_timing_max:'""!="" {
    `vv' local j = colnumb(`new',``eq1'`name'')
    if `j' == . & ``oname'" != "" {
      `vv' local j = colnumb(`new',``eq1'`oname'')
    }
  }
- if `j'!=. {
= if 12!=. {

```

```

- if `filll'[1,`j'] {
= if __00000I[1,12] {
  _ms_parse_parts `name'
  if !r(omit) {
    if "`eq'"=="_" {
      di in red `"'`error'duplicate "' `"'entries for `name' found"'
    }
    else di in red `"'`error'""' `"'duplicate entries for `eq':`name'
> found"'
    exit 507
  }
  else if !missing(`new'[1,`j']) {
    matrix `mat'[1,`i'] = `new'[1,`j']
  }
}
- else mat `filll'[1,`j'] = 1
= else mat __00000I[1,12] = 1
- mat `new'[1,`j'] = `mat'[1,`i']
= mat __00000H[1,12] = __00000G[1,12]
- }
- else if "`skip'"==" " {
= else if ""==" " {
  if "`eq'"=="_" {
    local spec : copy local name
  }
  di in red `"'`error'extra parameter "' `"'`spec' found"' _n "spe
> cify skip option if necessary"
  exit 111
}
- local i = `i' + 1
= local i = 12 + 1
- }
- while `i' <= `dim' {
= while 13 <= 12 {
  mat `x' = `mat'[1,`i'..`i']
  local eq : coleq `x'
  local name : colname `x'
  if "`eq'" == "/" {
    local spec "/`name'"
  }
  else {
    local spec "`eq':`name'"
    if (usubstr("`eq'",1,1) != "/") {
      local sspec "/`eq':`name'"
    }
  }
}
}

```

```

local oname
local ospec
capture _msparse `name', noomit
if c(rc) == 0 {
if r(omit) {
local oname ``r(stripe)'''
local ospec ``eq':`oname'
}
}
`vv' local j = colnumb(`new',``spec'')
if `j' == . & ``oname' != "" {
`vv' local j = colnumb(`new',``ospec'')
}
if `j' == . & ``sspec' != "" {
`vv' local j = colnumb(`new',``sspec'')
}
if `j'==. & ``eq'=="_" & ``eq1'!='' {
`vv' local j = colnumb(`new',``eq1`name'')
if `j' == . & ``oname' != "" {
`vv' local j = colnumb(`new',``eq1`oname'')
}
}
if `j'!=. {
if `fill'[1,`j'] {
_ms_parse_parts `name'
if !r(omit) {
if ``eq'=="_" {
di in red ``error'duplicate "' `entries for `name' found'
}
else di in red ``error'"" `duplicate entries for `eq':`name'
> found''
}
exit 507
}
else if !missing(`new'[1,`j']) {
matrix `mat'[1,`i'] = `new'[1,`j']
}
}
else mat `fill'[1,`j'] = 1
mat `new'[1,`j'] = `mat'[1,`i']
}
else if ``skip'=="" {
if ``eq'=="_" {
local spec : copy local name
}
di in red ``error'extra parameter "' ``spec' found' _n "spe
> cify skip option if necessary"

```

```

        exit 111
    }
    local i = `i` + 1
}
- mat `fill` = `fill`*`fill`
= mat __00000I = __00000I*__00000I
- sret clear
- sret local k_fill = `fill`[1,1]
= sret local k_fill = __00000I[1,1]
- mat `mat` = `new`
= mat __00000G = __00000H

```

```

> _____ end _mkvec.ChkNa
> mes _____
    - local fill `s(k_fill)`
    = local fill 12
    - }
    - }
    - }
    - else {
        local fill 0
        if "`update'"!="" {
            mat `mat` = `matin`
        }
        else if "`colname'"!="" {
            local dim : list sizeof colname
            mat `mat` = J(1,`dim`,0)
            `vv` mat colnames `mat` = `colname`
        }
        else {
            di in red "from() must be specified"
            exit 198
        }
    }
    - sret clear
    - sret local copy `copy`
    = sret local copy
    - sret local skip `skip`
    = sret local skip
    - sret local k = colsof(matrix(`mat`))
    = sret local k = colsof(matrix(__00000G))
    - if "`fill'"!="" {
    = if "12"!="" {
        - sret local k_fill `fill`
    = sret local k_fill 12
    - }

```

```

- else sret local k_fill = colsof(matrix(`mat'))
= else sret local k_fill = colsof(matrix(__00000G))
- matrix rename `mat' `matout', replace
= matrix rename __00000G __00000F, replace

```

```

> _____ end _mk
> vec _____
- }
- tempname bomit
- matrix `bomit' = J(1,`:list sizeof colna',0)
= matrix __00000G = J(1,12,0)
- matrix colna `bomit' = `colna'
= matrix colna __00000G = piq_timing_max:rule_g piq_timing_max:rule
> _itr piq_timing_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing
> _max:0b.stky_wg#1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_max:
> 1.stky_wg#1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_max:0b
> .stky_wg#1o.not_wg_ndx piq_timing_max:1o.stky_wg#0b.not_wg_ndx piq_timing_ma
> x:1o.stky_wg#1o.not_wg_ndx piq_timing_max:_cons
- _ms_omit_info `bomit'
= _ms_omit_info __00000G
- if r(k_omit) | `:length local constraints' {
= if r(k_omit) | 0 {
- nobreak {
- capture noisily break {
- _b_post0 `colna'
= _b_post0 piq_timing_max:rule_g piq_timing_max:rule_itr piq_timing
> _max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_timing_max:0b.stky_wg
> #1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_max:1.stky_wg#1.wg_
> ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_max:0b.stky_wg#1o.not
> _wg_ndx piq_timing_max:1o.stky_wg#0b.not_wg_ndx piq_timing_max:1o.stky_wg#1o
> .not_wg_ndx piq_timing_max:_cons

```

```

> _____ begin _b_po
> st0 _____
- version 11
- tempname b V
- local dim : list sizeof 0
- matrix `b' = J( 1,`dim',0)
= matrix __00000H = J( 1,12,0)
- matrix `V' = J(`dim',`dim',0)
= matrix __00000I = J(12,12,0)
- matrix colnames `b' = `0'
= matrix colnames __00000H = piq_timing_max:rule_g piq_timing_max:
> rule_itr piq_timing_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_ti
> ming_max:0b.stky_wg#1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_
> max:1.stky_wg#1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_ma

```

```

> x:0b.stky_wg#1o.not_wg_ndx piq_timing_max:1o.stky_wg#0b.not_wg_ndx piq_timin
> g_max:1o.stky_wg#1o.not_wg_ndx piq_timing_max:_cons
    - matrix colnames `V' = `0'
    = matrix colnames __00000I = piq_timing_max:rule_g piq_timing_max:
> rule_itr piq_timing_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_ti
> ming_max:0b.stky_wg#1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_
> max:1.stky_wg#1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_ma
> x:0b.stky_wg#1o.not_wg_ndx piq_timing_max:1o.stky_wg#0b.not_wg_ndx piq_timin
> g_max:1o.stky_wg#1o.not_wg_ndx piq_timing_max:_cons
    - matrix rownames `V' = `0'
    = matrix rownames __00000I = piq_timing_max:rule_g piq_timing_max:
> rule_itr piq_timing_max:estimated piq_timing_max:0b.stky_wg#0b.wg_ndx piq_ti
> ming_max:0b.stky_wg#1o.wg_ndx piq_timing_max:1.stky_wg#0b.wg_ndx piq_timing_
> max:1.stky_wg#1.wg_ndx piq_timing_max:0b.stky_wg#0b.not_wg_ndx piq_timing_ma
> x:0b.stky_wg#1o.not_wg_ndx piq_timing_max:1o.stky_wg#0b.not_wg_ndx piq_timin
> g_max:1o.stky_wg#1o.not_wg_ndx piq_timing_max:_cons
    - ereturn post `b' `V'
    = ereturn post __00000H __00000I


---


> _____ end _b_po
> st0 _____
    - local clist : substr local constraints "," " ", all
    - `vv' makecns `clist', `cnsnotes'
    = version 18.5: makecns ,


---


> _____ begin make
> cns _____
    - if _caller() < 11 {
      MakeCns `0'
      exit
    }
    - _makecns `0'
    = _makecns ,


---


> _____ end make
> cns _____
    - local constraints ``r(clist)'''
    = local constraints `'''
    - local k_autoCns = e(k_autoCns)
    - tempname C
    - capture matrix `C' = e(Cns)
    = capture matrix __00000H = e(Cns)
    - local rcc = c(rc)
    - }
    - local rc = c(rc)
    - ereturn clear

```

```

- }
- if (`rc`) exit `rc'
= if (0) exit 0
- if (`rcc') {
= if (0) {
    local C
    local k_autoCns
  }
- }
- if `:length local constraints' {
= if 0 {
    local lf0
  }
- local vce `vce' `robust' `cluster'
= local vce robust
- if `:length local vce' {
= if 6 {
- _vce_parse, argoptlist(Cluster) optlist(OIM OPG Robust) old : `wt'
> , `vce'
= _vce_parse, argoptlist(Cluster) optlist(OIM OPG Robust) old : , ro
> bust


---


> 

---

 begin _vce_pa
> rse 

---


- version 10
- _on_colon_parse `0'
= _on_colon_parse , argoptlist(Cluster) optlist(OIM OPG Robust) ol
> d : , robust


---


> 

---

 begin _on_colon_pa
> rse 

---


- version 8.2
- sreturn local before ""
- sreturn local after ""
- gettoken before after : 0, parse(":") bind match(par) quotes
- if ``par'' != "" {
= if "" != "" {
    local before `"(before)'"
  }
- if ``before'' == ":" {
= if `', argoptlist(Cluster) optlist(OIM OPG Robust) old '' == "
> : " {
    sreturn local after ``after'"
    exit
  }
- while ``COLON'' != ":" & ``after'' != "" {

```



```

= while `""' != ":" & `", robust"' != "" {
- gettoken COLON after : after, parse(":") bind match(par) quote
> s
- if "`par'" != "" {
= if "" != "" {
  local before `before' (`COLON')
  local COLON
}
- else if `""COLON"' != ":" {
= else if `":'" != ":" {
  local before `""before' `COLON"'
  local COLON
}
- }
- while `""COLON"' != ":" & `""after"' != "" {
= while `":'" != ":" & `", robust"' != "" {
  gettoken COLON after : after, parse(":") bind match(par) quote
> s
  if "`par'" != "" {
    local before `before' (`COLON')
    local COLON
  }
  else if `""COLON"' != ":" {
    local before `""before' `COLON"'
    local COLON
  }
}
- if `""COLON"' != ":" {
= if `":'" != ":" {
  di as err "" found where ':' expected"
  exit 198
}
- sreturn local before `""before"'
= sreturn local before `", argoptlist(CList) optlist(OIM OPG R
> obust) old ""
- sreturn local after `""after"'
= sreturn local after `", robust"'

-----
> ----- end _on_colon_pa
> rse -----
- local 0 `""s(before)'"
= local 0 `", argoptlist(CList) optlist(OIM OPG Robust) old ""
- local user `""s(after)'"
= local user `", robust"'
- syntax [varname(default=none)], [ OPTlist(namelist) ARGOPTlist(n
> amelist) Pwallowed(namelist) OLD_is_ok NOARGOPT_is_ok ]

```

```

- local touse `varlist'
= local touse
- tempname o a
- `.o' = ._optlist.new
= __00000I = ._optlist.new
- local optlist : list uniq optlist
- foreach name of local optlist {
- `.o'.addopt `name'
= __00000I.addopt OIM
}

> _____ begin _optlist.add
> opt _____
- version 9
- syntax name(name=optspec) [, PASSthru]
- local mname = lower("`optspec'")
= local mname = lower("OIM")
- if "`passthru'" != "" {
= if "" != "" {
    local optspec `optspec'(passthru)
}
- .options.Arrpush "`optspec'"
= .options.Arrpush "OIM"
- .names.Arrpush "`mname'"
= .names.Arrpush "oim"
}

> _____ end _optlist.add
> opt _____
- }
- `.o'.addopt `name'
= __00000I.addopt OPG
}

> _____ begin _optlist.add
> opt _____
- version 9
- syntax name(name=optspec) [, PASSthru]
- local mname = lower("`optspec'")
= local mname = lower("OPG")
- if "`passthru'" != "" {
= if "" != "" {
    local optspec `optspec'(passthru)
}
- .options.Arrpush "`optspec'"
= .options.Arrpush "OPG"
- .names.Arrpush "`mname'"
= .names.Arrpush "opg"
}

```

```

> _____ end _optlist.add
> opt _____
    - }
    - .`o'.addopt `name'
    = .__00000I.addopt Robust
    _____

> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("Robust")
    - if "`passthru'" != "" {
    = if "" != "" {
        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "Robust"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "robust"
    _____

> _____ end _optlist.add
> opt _____
    - }
    - .`a' = ._optlist.new
    = .__00000J = ._optlist.new
    - local argoptlist : list uniq argoptlist
    - foreach name of local argoptlist {
    - .`a'.addopt `name'
    = .__00000J.addopt CLuster
    _____

> _____ begin _optlist.add
> opt _____
    - version 9
    - syntax name(name=optspec) [, PASSthru]
    - local mname = lower("`optspec'")
    = local mname = lower("CLuster")
    - if "`passthru'" != "" {
    = if "" != "" {
        local optspec `optspec'(passthru)
    }
    - .options.Arrpush "`optspec'"
    = .options.Arrpush "CLuster"
    - .names.Arrpush "`mname'"
    = .names.Arrpush "cluster"
    _____

```

```

> _____ end _optlist.add
> opt _____
    - }
    - local OPTNAMES ```.o'.dumpnames'''
    _____

> _____ begin _optlist.dumpna
> mes _____
    - version 9
    - forval i = 1/`.names.arnels' {
    = forval i = 1/3 {
    - local namelist `namelist' `.names['i']'
    = local namelist oim
    - }
    - local namelist `namelist' `.names['i']'
    = local namelist oim opg
    - }
    - local namelist `namelist' `.names['i']'
    = local namelist oim opg robust
    - }
    - local namelist : list uniq namelist
    - sreturn local namelist ``namelist'''
    = sreturn local namelist "oim opg robust"
    - class exit ``namelist'''
    = class exit "oim opg robust"
    _____

> _____ end _optlist.dumpna
> mes _____
    = local OPTNAMES "oim opg robust"
    - local ARGOPTNAMES ```.a'.dumpnames'''
    _____

> _____ begin _optlist.dumpna
> mes _____
    - version 9
    - forval i = 1/`.names.arnels' {
    = forval i = 1/1 {
    - local namelist `namelist' `.names['i']'
    = local namelist cluster
    - }
    - local namelist : list uniq namelist
    - sreturn local namelist ``namelist'''
    = sreturn local namelist "cluster"
    - class exit ``namelist'''
    = class exit "cluster"
    _____

> _____ end _optlist.dumpna
> mes _____

```

```

= local ARGOPTNAMES `"cluster"
- local AND : list OPTNAMES & ARGOPTNAMES
- if `:list sizeof AND' {
= if 0 {
  di as err "vcetype `:word 1 of `AND'' specified twice"
  exit 198
}
- local pwallowed : list uniq pwallowed
- local pwlist robust cluster
- foreach n of local pwallowed {
  local lc = lower("`n'")
  local pwlist `pwlist' `lc'
}
- if "`old_is_ok'" != "" {
= if "old_is_ok" != "" {
- local ROBUST robust
- if `:list ROBUST in OPTNAMES' {
= if 1 {
- local robust Robust
- }
- local CLUSTER cluster
- if `:list CLUSTER in ARGOPTNAMES' {
= if 1 {
- local cluster CLuster(varname)
- }
- }
- local 0 ``user''
= local 0 `` , robust''
- syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster' ]
= syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(varname)

> ]

- if ``vce'' != "" {
= if ``'' != "" {
  gettoken name args : vce, parse(" ,")
  local args : list retok args
  capture ParseVCE `o' `a' , `name'
  if c(rc) {
    di as err "vcetype {bf:`name'} not allowed"
    exit 198
  }
  local name `r(vce)'
  if "`weight'" == "pweight" & !`:list name in pwlist' {
    di as err "pweights are not allowed with vce(`name')"
    exit 198
  }
  return add

```

```

        if ``robust'' != "" & !inlist("`name'", "", "robust", "eim", "oim"
> , "cluster") {
    opts_exclusive "`robust' vce(`name')"
    }
    if "`name'" == "cluster" {
        if ``args'' == "" {
            di as err "invalid vce(cluster) option"
            exit 198
        }
        confirm var `args'
        unab args : `args'
        local markout `args'
        if "`cluster'" != "" {
            if !`:list args == cluster' {
                di as err "options cluster() and vce(cluster) are in conflict"
                exit 100
            }
        }
        else if "`cluster'" != "" & !inlist("`name'", "eim", "oim") {
            opts_exclusive "cluster() vce(`name')"
        }
        if ``args'' != "" {
            if !`:list name in ARGOPTNAMES' {
                di as err "invalid vce() option"
                exit 198
            }
            if "`name'" == "hc2" {
                confirm var `args'
                unab args : `args'
                local markout `args'
            }
            return local vceargs ```:list retok args'''
        }
        else if `:list name in ARGOPTNAMES' {
            if "`noargopt_is_ok'" == "" {
                di as err "invalid vce() option"
                exit 198
            }
        }
    }
    - else {
    - if "`weight'" == "pweight" | "`robust'" != "" {
    = if "" == "pweight" | "robust" != "" {
    - local vce robust
    - }

```

```

- if "`cluster'" != "" {
= if "" != "" {
    local vce cluster
    local args `cluster'
    local markout `cluster'
  }
- return local vce ``vce'''
= return local vce `robust'
- return local vceargs ``args'''
= return local vceargs `'''
- }
- if "`return(vce)'" != "" {
= if "robust" != "" {
- if ``return(vceargs)''' != "" {
= if `''' != "" {
    local ss " "
  }
- return local vceopt `vce(`return(vce)''ss''return(vceargs)')'
= return local vceopt `vce(robust)'
- }
- if "`return(vce)'" == "cluster" {
= if "robust" == "cluster" {
    return local cluster `return(vceargs)'
  }
- if inlist("`return(vce)'", "robust", "cluster") {
= if inlist("robust", "robust", "cluster") {
- return local robust robust
- }
- if "`touse'" != "" {
= if "" != "" {
    if "`markout'" != "" {
      markout `touse' `markout', strok
    }
  }
}

```

> _____ end _vce_pa

> rse

```

- local vce `r(vce)'
= local vce robust
- }
- else if "`weight'" == "pweight" {
= else if "" == "pweight" {
    local vce robust
  }
- if `:length local svy' {
= if 0 {

```

```

        local vce svy
    }
- if ``"vce" == "cluster" {
= if ``"robust" == "cluster" {
    local cluster `r(cluster)'
    markout $ML_sample `cluster', strok
}
- if `:length local group' {
= if 0 {
    markout $ML_sample `group', strok
    global ML_group : copy local group
    if bsubstr("`type `group'",1,3) == "str" {
        if `interactive' {
            SetGlobalVar ML_grp : _MLgr
        }
        else {
            global ML_grp : tempvar
            if ``"moptobj" != "" {
                global ML_grp `moptobj'$ML_grp
            }
        }
        quietly egen $ML_grp = group(`group')
        if ! `:length local cluster' {
            local cluster : copy global ML_grp
        }
    }
    else {
        if ! `:length local cluster' {
            local cluster : copy global ML_group
        }
    }
}
- if "$ML_samp" != "$ML_sample" {
= if "__00000D" != "__00000D" {
    quietly replace $ML_samp = 0 if $ML_samp & $ML_sample == 0
}
- if `:length local vce' == 0 {
= if 6 == 0 {
    if ``"technique" == "bhhh" {
        local vce opg
    }
    else local vce oim
}
- if inlist("`vce", "robust", "cluster") & bsubstr("`evaltype'",1,1
> ) == "d" {
    = if inlist("robust", "robust", "cluster") & bsubstr("e2",1,1) == "d

```



```

> " {
    local optname = cond("`svy'"=="", "vce(`vce')", "svy")
    di as err "option `optname' is not allowed with evaltype `evaltype"
> ""

    exit 198
}
- if `:length local crittype' == 0 {
= if 0 == 0 {
- if inlist("`vce'", "cluster", "robust", "svy") {
= if inlist("robust", "cluster", "robust", "svy") {
- local crittype "log pseudolikelihood"
- }
- else local crittype "log likelihood"
- }
- global ML_waldtest `waldtest'
= global ML_waldtest -1
- if `:length local svy' | `:length local weight' {
= if 0 | 0 {
    if `interactive' {
        SetGlobalVar ML_w : _MLw
    }
    else {
        global ML_w : tempvar
        if ``moptobj' != "" {
            global ML_w `moptobj'$ML_w
        }
    }
}
- if `:length local weight' {
= if 0 {
    if ``moptobj' != "" {
        cap drop $ML_w
    }
    quietly gen double $ML_w `exp' if $ML_samp
    local wtype ``weight'
    local wexp ``exp'
    global ML_wtyp : copy local wtype
    global ML_wexp : copy local wexp
    if "wtype" == "iweight" | "`svy'" != "" {
        local zeroweight zeroweight
    }
}
- if inlist("`vce'", "svy", "cluster") {
= if inlist("robust", "svy", "cluster") {
    if `interactive' {
        SetGlobalVar ML_subv : _MLsu

```

```

}
else {
  global ML_subv : tempvar
  if ``moptobj''' != "" {
    global ML_subv `moptobj'$ML_subv
  }
}
}
- quietly count if $ML_sample
= quietly count if __00000D
- if r(N) == 0 {
  error 2000
}
- if ``weight''' != "" {
= if `''' != "" {
  quietly count if $ML_sample & $ML_w != 0
  if r(N) == 0 {
    di in gr "all observation have zero weights"
    exit 2000
  }
}
- if `:length local lf0' {
= if 0 {
  if `:list sizeof lf0' != 2 {
    di as err "lf0(`lf0') invalid"
    exit 198
  }
  global ML_k0 : word 1 of `lf0'
  global ML_ll_0 : word 2 of `lf0'
  confirm integer number $ML_k0
  confirm number $ML_ll_0
  if $ML_k0 < 0 {
    di as err "lf0(`lf0') invalid"
    exit 198
  }
}
- if ``obs''' == "" {
= if "" == "" {
  - if ``wtype''' != "fweight" {
= if "" != "fweight" {
  - quietly count if $ML_sample
= quietly count if __00000D
  - local obs = r(N)
- }
- else {
  sum $ML_w if $ML_sample, mean

```

```

        local obs = r(sum)
    }
- }
- if `:length local iterid' {
= if 0 {
    local iterid = trim(bsubstr("`iterid'",1,32))
}
- if `:length local crittype' {
= if 20 {
    local crittype = trim(bsubstr("`crittype'",1,32))
= local crittype = trim(bsubstr("`log pseudolikelihood'",1,32))
- }
- if `:length local derivscale' {
= if 0 {
    confirm matrix `derivscale'
}
- if `:length local derivh' {
= if 0 {
    confirm matrix `derivh'
}
- local l : strlen local deriv
- ParseUsemin, `deriv' len(`l')
= ParseUsemin, len(0)
}

> ----- begin mopt.ParseUse
> min -----
- capture syntax [, LEN(integer 0), MIN1(numlist min=2 max=2 missi
> ngokay) NOMIN MIN]
- if (_rc) {
    syntax [, LEN(integer 0) MIN1(string) NOMIN MIN]
}
- if ``min1' != "" & ``nomin' != "" {
= if `'' != "" & `'' != "" {
    di as err "options {bf:min()} and {bf:nomin} are mutually exclus
> ive"
    exit 198
}
- if ``min' != "" & ``nomin' != "" {
= if `'' != "" & `'' != "" {
    di as err "options {bf:min} and {bf:nomin} are mutually exclusiv
> e"
    exit 198
}
- if (``min1' != "") {
= if (``' != "") {
    if (_rc) {

```

```

        capture confirm matrix `min1'
        if (_rc) {
            di as err "option {bf:min()} requires that either two numbers or
> a 1X2 matrix be specified"
            exit 198
        }
        local deriv `min1'
    }
    - else if (`"'min'" != "") {
= else if (`"' != "") {
        if (`len' > length(`"'min'"')) {
            di as err "option {bf:min()} requires that either two numbers or
> a 1X2 matrix be specified"
            exit 198
        }
        local deriv 1
    }
    - else {
    - if (`len' > 0) {
= if (0 > 0) {
        if ("`nomin'" == "") {
            di as err "option {bf:min()} requires that either two numbers or
> a 1X2 matrix be specified"
            exit 198
        }
        else if (`len' > length(`"'nomin'"')) {
            di as err "options {bf:min()} and {bf:nomin} are mutually exclus
> ive"
            exit 198
        }
        else {
            local deriv 0
        }
    }
    - else {
    - local deriv 0
    - }
    - }
    - sreturn local deriv `deriv'
= sreturn local deriv 0
}

> _____ end mopt.ParseUse
> min _____
    - local deriv = s(deriv)
    - if `:length local gnwmatrix' {

```

```

= if 0 {
  confirm matrix `gnwmatrix'
}
- `vv' mata: Mopt_model()
= version 18.5: mata: Mopt_model()

> _____ begin mopt_check_prog
> ram _____
    - version 10
    - args name
    - capture confirm name `name'
    = capture confirm name glim_lf
    - if c(rc) {
      di as err "unrecognized command:  `name' invalid command name"
      exit 199
    }
    - capture which `name'
    = capture which glim_lf
    - if !c(rc) {
    - exit
    _____

> _____ end mopt_check_prog
> ram _____
    - global ML_stat model
    - if !`interactive' {
    = if !0 {
    - `vv' MaxMin `maxmin', nooutput `score' `options' moptobj(`moptobj'
> )
    = version 18.5: MaxMin maximize, nooutput  nolog search(off) iter(30
> 0) moptobj()
    _____

> _____ begin mopt.Max
> Min _____
    - local vv : di "version " string(_caller()) ":"
    - version 12
    - ChkMacros
    _____

> _____ begin mopt.ChkMac
> ros _____
    - if "$ML_stat" != "model" {
    = if "model" != "model" {
      di as err "you must issue -ml model- first"
      exit 198
    }
    - capture confirm var $ML_samp $ML_w $ML_subv
    = capture confirm var __00000D __00000D

```

```

        - if c(rc) {
            di as err "Since issuing the -ml model- statement, you have do
> ne something to drop" _n "temporary variables ml added to your data.  You mu
> st start again."
            Clear
            exit 111
        }
    }
}

> _____ end mopt.ChkMac
> ros _____
    - syntax name(name=maxmin) [, NEGH TOLerance(numlist max=1 >=0) LT
> OLerance(numlist max=1 >=0) NONRTOLerance NRTOLerance(numlist max=1 >=0) QTOLerance(numlist max=1 >=0) GTOLerance(numlist max=1 >=0) ITERate(numlist max=1 >=0) NOTCONCAVE(numlist max=1 >=0) ndami DIFFicult HALFSTEPonly DOOPT SEA
> rch(name) Repeat(passthru) Bounds(string) SCore(string) noWARNING noCLEAR NO
> LOf LOG DOTs SHOWTOLerance SHOWNrtolerance SHOWSTEP TRace COEFDiffs GRADient
> HESSian noSKIpline noOUTput Level(cilevel) moptobj(string) * ]
    - if `:length local nrtolerance' {
    = if 0 {
        opts_exclusive "nrtolerance() `nonrtolerance'"
    }
    - if `:length local qtolerance' {
    = if 0 {
        opts_exclusive "qtolerance() `nonrtolerance'"
    }
    - opts_exclusive "`nonrtolerance' `shownrtolerance'"
    = opts_exclusive " "
}

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
        - exit
    }
}

> _____ end opts_exclus
> ive _____

```

```

- if `:length local shownrtolerance' {
= if 0 {
    local showtolerance showtolerance
  }
- if "$ML_preserve" != "no" {
= if "no" != "no" {
    if `:length local score' {
      di as smcl as err "May not specify {bf:score()} option unless" _
> n "      a) estimation subsample is the entire data in memory, or" _n "      b
> ) you specify option {bf:nopreserve} on {bf:ml model} statement (meaning" _n
> "      your evaluation program explicitly restricts itself to obs" _n "
>      for which {bf:$}" "{bf:ML_samp==1}."
      exit 198
    }
    preserve
    local N = c(N)
    quietly keep if $ML_sample
    if (`N' != c(N)) {
      mata: Mopt_init_regetviews()
    }
  }
- if `:length local score' {
= if 0 {
    SetupScore `"$ML_evaltype"' ``score'"' $ML_n $ML_dim
    local scores ``s(scores)'"
  }
- _parse_iterlog, `nolog' `log'
= _parse_iterlog, nolog
  _____
> _____ begin _parse_iter
> log _____
    - version 16
    - syntax [, NOLOG LOG]
    - if ``log'`nolog'" != "" {
    = if "nolog" != "" {
    - opts_exclusive ``log' `nolog'"
    = opts_exclusive " nolog"
  _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts  nolog
    - local n 0
    - while ``opts'" != "" {

```

```

= while `"nolog"' != "" {
- local ++n
- gettoken item`n' opts : opts, bind
= gettoken item1 opts : opts, bind
- }
- while ``opts' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 1 < 2 {
- exit
}

> _____ end opts_exclus
> ive _____
- }
- else if ``c(iterlog)' == "on" {
= else if "on" == "on" {
    local log log
    }
- else {
    local nolog nolog
    }
- sreturn local log `log'
= sreturn local log
- sreturn local nolog `nolog'
= sreturn local nolog nolog
}

> _____ end _parse_iter
> log _____
- local log ``s(nolog)''
= local log "nolog"
- local tropts `log' `dots' `showtolerance' `showstep' `trace' `co
> efdiffs'
= local tropts nolog
- if ``tropts' != "nolog" {
= if "nolog" != "nolog" {
    local tropts `tropts' `gradient' `hessian'
    if ``skipline' == "" {
    if ``iterate' != "0" | `:length local tropts' {
    di
    }
    }
    }
- else {

```



```

- local gradient
- local hessian
- local nolog nolog
- }
- if "`search'" != "off" & "`iterate'" != "0" {
= if "off" != "off" & "300" != "0" {
  if "`search'" == "quietly" {
    local sopts nolog
  }
  else {
    if `:length local tropts' {
      if "`tropts'" != "nolog" {
        local sopts trace
      }
      else local sopts nolog
    }
  }
  if "`search'" == "norescale" {
    local sopts `sopts' norescale
  }
  Search `bounds', nopreserve `sopts' `repeat' `maxmin'
}
- tempname value b V iV
- `vv' mata: Mopt_maxmin()
= version 18.5: mata: Mopt_maxmin()

```

```

> _____ begin glim
> _lf _____

```

```

- version 6
- args todo b lnf g H score
- local VV : di "version " string(_caller()) ":"
- tempvar eta mu dm u v
- mlevel `eta' = `b'
= mlevel __00000X = __00000R
- qui $SGLM_L 1 `eta' `mu'
= qui glim_l03 1 __00000X __00000Y

```

```

> _____ begin glim_
> l03 _____

```

```

- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 1 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
}

```

```

    }
    else global SGLM_lf "ln(u/$SGLM_m)"
    exit
  }
- if `todo' == 0 {
= if 1 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 1 == 1 {
  - gen double `mu' = $SGLM_m*exp(`eta')
= gen double __00000Y = 1*exp(__00000X)
  - exit
}
}
> _____ end glim_
> l03 _____
  - qui $SGLM_mu `mu'
= qui glim_mu 0 . __00000Y
}
> _____ begin glim
> _mu _____
  - version 7
  - args min max mu
  - tempname eps
  - scalar `eps' = 1e-8
= scalar __000011 = 1e-8
  - replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __00000Y = 0+__000011 if __00000Y<=0+__000011
  - replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __00000Y = .-__000011 if __00000Y>=.-__000011
}
> _____ end glim
> _mu _____
  - qui $SGLM_L 2 `eta' `mu' `dmu'
= qui glim_l03 2 __00000X __00000Y __00000Z
}
> _____ begin glim_
> l03 _____
  - version 7
  - args todo eta mu return
  - if `todo' == -1 {
= if 2 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
  global SGLM_lf "ln(u)"

```

```

    }
    else global SGLM_lf "ln(u/$SGLM_m)"
    exit
  }
- if `todo' == 0 {
= if 2 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 2 == 1 {
  gen double `mu' = $SGLM_m*exp(`eta')
  exit
}
- if `todo' == 2 {
= if 2 == 2 {
  - gen double `return' = `mu'
= gen double __00000Z = __00000Y
- exit
}
}
> _____ end glim_
> l03 _____
    - qui $SGLM_V 1 `eta' `mu' `v'
= qui glim_v6 1 __00000X __00000Y __000010
}
> _____ begin glim
> _v6 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
= if 1 == -1 {
  local y "$SGLM_y"
  local m "$SGLM_m"
  local touse "`eta'"
  capture assert `y'>=0 if `touse'
  if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
  }
  capture assert `y'==int(`y') if `touse'
  if _rc {
    di as txt `"note: `y' has noninteger values"'
  }
  global SGLM_vt "Neg. Binomial"
  local SGLM_a = round($SGLM_a,0.0001)
  global SGLM_vf "u+(`SGLM_a')u^2"

```

```

        global SGLM_mu "glim_mu 0 ."
        exit
    }
- if `todo' == 0 {
= if 1 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
}
- if `todo' == 1 {
= if 1 == 1 {
    - gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
= gen double __000010 = __00000Y+__00000Y*__00000Y*1
- exit
}
}

> _____ end glim
> _v6 _____
    - if "$ML_off" == "" {
= if "" == "" {
    - global ML_off 0
    - }
    - tempname phi
    - if "$SGLM_ph" == "" { global SGLM_ph = 1 }
= if ".2647847552406072" == "" { global SGLM_ph = 1 }
    - scalar `phi' = $SGLM_ph
= scalar __000011 = .2647847552406072
    - if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
= if 1 { scalar __000011 = 1 }
    - tempvar lli
    - qui `VV' $SGLM_V 5 `eta' `mu' `lli'
= qui version 18.5: glim_v6 5 __00000X __00000Y __000012
}

> _____ begin glim
> _v6 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
= if 5 == -1 {
        local y "$SGLM_y"
        local m "$SGLM_m"
        local touse "`eta'"
        capture assert `y'>=0 if `touse'
        if _rc {
            di as err `"dependent variable `y' has negative values"'
            exit 499
        }
        capture assert `y'==int(`y') if `touse'

```

```

if _rc {
di as txt `"note: `y' has noninteger values"'
}
global SGLM_vt "Neg. Binomial"
local SGLM_a = round($SGLM_a,0.0001)
global SGLM_vf "u+(`SGLM_a')u^2"
global SGLM_mu "glim_mu 0 ."
exit
}
- if `todo' == 0 {
= if 5 == 0 {
gen double `eta' = -ln1p($SGLM_a/`mu')
exit
}
- if `todo' == 1 {
= if 5 == 1 {
gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
exit
}
- if `todo' == 2 {
= if 5 == 2 {
gen double `return' = 1 + 2*`mu'*$SGLM_a
exit
}
- if `todo' == 3 {
= if 5 == 3 {
local y "$SGLM_y"
if "`y'" == "" {
local y "`e(depvar)'"
}
gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/`mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu'*$SGLM_a))))
exit
}
- if `todo' == 4 {
= if 5 == 4 {
local y "$SGLM_y"
local k "$SGLM_a"
if "`y'" == "" {
local y "`e(depvar)'"
}
gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) -`mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
exit
}

```

```

- if `todo' == 5 {
= if 5 == 5 {
- local y "$SGLM_y"
= local y "piq_timing_max"
- if "`y'" == "" {
= if "piq_timing_max" == "" {
  local y "`e(depvar)'"
}
- tempname sig2
- if $SGLM_s1 {
= if 1 {
- scalar `sig2' = $SGLM_s1
= scalar __000013 = 1
- }
- else {
  if _caller() >= 11 {
    scalar `sig2' = $SGLM_ph* (($ML_N-$ML_kCns)/$ML_N)
  }
  else {
    scalar `sig2' = $SGLM_ph* (($ML_N-$ML_k)/$ML_N)
  }
}
- local m = 1/$SGLM_a
= local m = 1/1
- local lnalpha = ln(`m')
= local lnalpha = ln(1)
- gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/'m') + `y'*ln(`mu'/(`mu'+`m'))))
= gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln
> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*ln
> n(__00000Y/(__00000Y+1)))
- exit
}

> _____ end glim
> _v6 _____
- mlsun `lnf' = `lli'
= mlsun __00000S = __000012
- if `todo' == 0 | `lnf'==. { exit }
= if 2 == 0 | __00000S==. { exit }
- qui replace `score' = ($ML_y1 - `mu')/(`phi'*`v')*`dmu' if $ML
> _samp
= qui replace __00000V = (piq_timing_max - __00000Y)/(__000011*_
> __000010)*__00000Z if __00000D
- $ML_ec mlsun `lnf' `g' = `score'
= * mlsun __00000S __00000T = __00000V
- if `todo' == 1 | `lnf'==. { exit }

```

```

= if 2 == 1 | __00000S==. { exit }
- tempvar tt
- qui gen double `tt' = sum($ML_w*($ML_y1-`mu')*($ML_y1-`mu')/`v
> ')
= qui gen double __000013 = sum(__00000D*(piq_timing_max-__00000
> Y)*(piq_timing_max-__00000Y)/__000010)
- if _caller() >= 11 {
- global SGLM_ph = `tt'[_N]/($ML_N-$ML_kCns)
= global SGLM_ph = __000013[_N]/(217-6)
- }
- else {
global SGLM_ph = `tt'[_N]/($ML_N-$ML_k)
}
- qui $SGLM_A
= qui
- tempvar t1
- qui gen double `t1' = `dmu'*`dmu'/`v' if $ML_samp
= qui gen double __000014 = __00000Z*__00000Z/__000010 if __0000
> 0D
- if "$SGLM_f" == "" {
= if "-1" == "" {
global SGLM_f = -1
}
- if $SGLM_f >= $ML_ic {
= if -1 >= 0 {
mlmatsum `lnf' `H' = (`t1')/`phi'
exit
}
- tempvar dv d2mu
- qui $SGLM_V 2 `eta' `mu' `dv'
= qui glim_v6 2 __00000X __00000Y __000015

> _____ begin glim
> _v6 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 2 == -1 {
local y "$SGLM_y"
local m "$SGLM_m"
local touse "`eta'"
capture assert `y'>=0 if `touse'
if _rc {
di as err `"dependent variable `y' has negative values"'
exit 499
}
}

```

```

capture assert `y'==int(`y') if `touse'
if _rc {
di as txt `"note: `y' has noninteger values"'
}
global SGLM_vt "Neg. Binomial"
local SGLM_a = round($SGLM_a,0.0001)
global SGLM_vf "u+(`SGLM_a')u^2"
global SGLM_mu "glim_mu 0 ."
exit
}
- if `todo' == 0 {
= if 2 == 0 {
gen double `eta' = -ln1p($SGLM_a/`mu')
exit
}
- if `todo' == 1 {
= if 2 == 1 {
gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
exit
}
- if `todo' == 2 {
= if 2 == 2 {
- gen double `return' = 1 + 2*`mu'*$SGLM_a
= gen double __000015 = 1 + 2*__00000Y*1
- exit
}
}
}
> _____ end glim
> _v6 _____
- qui $SGLM_L 3 `eta' `mu' `d2mu'
= qui glim_l03 3 __00000X __00000Y __000016
}
> _____ begin glim_
> l03 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 3 == -1 {
global SGLM_lt "Log"
if "$SGLM_m" == "1" {
global SGLM_lf "ln(u)"
}
else global SGLM_lf "ln(u/$SGLM_m)"
exit
}
- if `todo' == 0 {
= if 3 == 0 {

```



```

        gen double `eta' = ln(`mu'/$SGLM_m)
        exit
    }
- if `todo' == 1 {
= if 3 == 1 {
    gen double `mu' = $SGLM_m*exp(`eta')
    exit
}
- if `todo' == 2 {
= if 3 == 2 {
    gen double `return' = `mu'
    exit
}
- if `todo' == 3 {
= if 3 == 3 {
    - gen double `return' = `mu'
    = gen double __000016 = __00000Y
    - exit
}
}
}

> _____ end glim_
> l03 _____
    - tempvar t2 t3
    - qui gen double `t2' = `t1'/'v'*`dv' if $ML_samp
    = qui gen double __000017 = __000014/__000010*__000015 if __0000
> 0D
    - qui gen double `t3' = `d2mu'/'v' if $ML_samp
    = qui gen double __000018 = __000016/__000010 if __00000D
    - mlmatsum `lnf' `H' = (`t1'-(`mu'-$ML_y1)*(`t2'-`t3'))/'phi'
    = mlmatsum __00000S __00000U = (__000014-(__00000Y-piq_timing_ma
> x)*(__000017-__000018))/__000011
    _____
> _____ end glim
> _lf _____
    _____
> _____ begin glim
> _lf _____
    - version 6
    - args todo b lnf g H score
    - local VV : di "version " string(_caller()) ":"
    - tempvar eta mu dmu v
    - mlevel `eta' = `b'
    = mlevel __00000X = __00000R
    - qui $SGLM_L 1 `eta' `mu'
    = qui glim_l03 1 __00000X __00000Y
    _____
> _____ begin glim_

```

```

> l03
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 1 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
- if `todo' == 0 {
= if 1 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 1 == 1 {
  - gen double `mu' = $SGLM_m*exp(`eta')
  = gen double __00000Y = 1*exp(__00000X)
  - exit
}
}

> end glim_
> l03
- qui $SGLM_mu `mu'
= qui glim_mu 0 . __00000Y

> begin glim_
> _mu
- version 7
- args min max mu
- tempname eps
- scalar `eps' = 1e-8
= scalar __000011 = 1e-8
- replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __00000Y = 0+__000011 if __00000Y<=0+__000011
- replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __00000Y = .-__000011 if __00000Y>=.-__000011

> end glim_
> _mu
- qui $SGLM_L 2 `eta' `mu' `dmu'
= qui glim_l03 2 __00000X __00000Y __00000Z

> begin glim_

```

```

> l03 -----
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 2 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
- if `todo' == 0 {
= if 2 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 2 == 1 {
  gen double `mu' = $SGLM_m*exp(`eta')
  exit
}
- if `todo' == 2 {
= if 2 == 2 {
  - gen double `return' = `mu'
= gen double __00000Z = __00000Y
- exit
}

> ----- end glim_
> l03 -----
- qui $SGLM_V 1 `eta' `mu' `v'
= qui glim_v6 1 __00000X __00000Y __000010

> ----- begin glim
> _v6 -----
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 1 == -1 {
  local y "$SGLM_y"
  local m "$SGLM_m"
  local touse "`eta'"
  capture assert `y'>=0 if `touse'
  if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
  }
}

```

```

    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
    di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
    }
- if `todo' == 0 {
= if 1 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
    }
- if `todo' == 1 {
= if 1 == 1 {
    - gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    = gen double __000010 = __00000Y+__00000Y*__00000Y*1
    - exit
}

> _____ end glim
> _v6 _____
    - if "$ML_off" == "" {
    = if "0" == "" {
        global ML_off 0
    }
    - tempname phi
    - if "$SGLM_ph" == "" { global SGLM_ph = 1 }
    = if "1.058102022059677" == "" { global SGLM_ph = 1 }
    - scalar `phi' = $SGLM_ph
    = scalar __000011 = 1.058102022059677
    - if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
    = if 1 { scalar __000011 = 1 }
    - tempvar lli
    - qui `VV' $SGLM_V 5 `eta' `mu' `lli'
    = qui version 18.5: glim_v6 5 __00000X __00000Y __000012

> _____ begin glim
> _v6 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
    = if 5 == -1 {
        local y "$SGLM_y"

```

```

local m "$SGLM_m"
local touse "`eta'"
capture assert `y'>=0 if `touse'
if _rc {
di as err `"dependent variable `y' has negative values"'
exit 499
}
capture assert `y'==int(`y') if `touse'
if _rc {
di as txt `"note: `y' has noninteger values"'
}
global SGLM_vt "Neg. Binomial"
local SGLM_a = round($SGLM_a,0.0001)
global SGLM_vf "u+(`SGLM_a')u^2"
global SGLM_mu "glim_mu 0 ."
exit
}
- if `todo' == 0 {
= if 5 == 0 {
gen double `eta' = -ln1p($SGLM_a/`mu')
exit
}
- if `todo' == 1 {
= if 5 == 1 {
gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
exit
}
- if `todo' == 2 {
= if 5 == 2 {
gen double `return' = 1 + 2*`mu'*$SGLM_a
exit
}
- if `todo' == 3 {
= if 5 == 3 {
local y "$SGLM_y"
if "`y'" == "" {
local y "`e(depvar)'"
}
gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/`mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu'*$SGLM_a))))
exit
}
- if `todo' == 4 {
= if 5 == 4 {
local y "$SGLM_y"

```

```

        local k "$SGLM_a"
        if "`y'" == "" {
            local y "`e(depvar)'"
        }
        gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) - `mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
        exit
    }
    - if `todo' == 5 {
    = if 5 == 5 {
    - local y "$SGLM_y"
    = local y "piq_timing_max"
    - if "`y'" == "" {
    = if "piq_timing_max" == "" {
        local y "`e(depvar)'"
    }
    - tempname sig2
    - if $SGLM_s1 {
    = if 1 {
    - scalar `sig2' = $SGLM_s1
    = scalar __000013 = 1
    - }
    - else {
        if _caller() >= 11 {
            scalar `sig2' = $SGLM_ph* (($ML_N-$ML_kCns)/$ML_N)
        }
        else {
            scalar `sig2' = $SGLM_ph* (($ML_N-$ML_k)/$ML_N)
        }
    }
    - local m = 1/$SGLM_a
    = local m = 1/1
    - local lnalpha = ln(`m')
    = local lnalpha = ln(1)
    - gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/`m') + `y'*ln(`mu'/(`mu'+`m'))))
    = gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln
> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*l
> n(__00000Y/(__00000Y+1)))
    - exit
}

> _____ end glim
> _v6 _____
    - mlsun `lnf' = `lli'
    = mlsun __000005 = __000012
    - if `todo' == 0 | `lnf'==. { exit }

```

```

= if 0 == 0 | __00000S==. { exit }
> _____ end glim
> _lf _____
> _____ begin glim
> _lf _____
- version 6
- args todo b lnf g H score
- local VV : di "version " string(_caller()) ":"
- tempvar eta mu dm u v
- mlevel `eta' = `b'
= mlevel __00000X = __00000R
- qui $SGLM_L 1 `eta' `mu'
= qui glim_l03 1 __00000X __00000Y
> _____ begin glim_
> l03 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 1 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
- if `todo' == 0 {
= if 1 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 1 == 1 {
  - gen double `mu' = $SGLM_m*exp(`eta')
  = gen double __00000Y = 1*exp(__00000X)
  - exit
> _____ end glim_
> l03 _____
- qui $SGLM_mu `mu'
= qui glim_mu 0 . __00000Y
> _____ begin glim

```

```

> _mu
- version 7
- args min max mu
- tempname eps
- scalar `eps' = 1e-8
= scalar __000011 = 1e-8
- replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __00000Y = 0+__000011 if __00000Y<=0+__000011
- replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __00000Y = .-__000011 if __00000Y>=.-__000011

> _____ end glim_
> _mu
- qui $SGLM_L 2 `eta' `mu' `dmu'
= qui glim_l03 2 __00000X __00000Y __00000Z

> _____ begin glim_
> l03
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 2 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
- if `todo' == 0 {
= if 2 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 2 == 1 {
  gen double `mu' = $SGLM_m*exp(`eta')
  exit
}
- if `todo' == 2 {
= if 2 == 2 {
  - gen double `return' = `mu'
= gen double __00000Z = __00000Y
- exit

> _____ end glim_

```



```

> l03 -----
      - qui $SGLM_V 1 `eta' `mu' `v'
      = qui glim_v6 1 __00000X __00000Y __000010
-----

> ----- begin glim
> _v6 -----
      - version 7
      - args todo eta mu return
      - if `todo' == -1 {
      = if 1 == -1 {
          local y "$SGLM_y"
          local m "$SGLM_m"
          local touse "`eta'"
          capture assert `y'>=0 if `touse'
          if _rc {
              di as err `"dependent variable `y' has negative values"'
              exit 499
          }
          capture assert `y'==int(`y') if `touse'
          if _rc {
              di as txt `"note: `y' has noninteger values"'
          }
          global SGLM_vt "Neg. Binomial"
          local SGLM_a = round($SGLM_a,0.0001)
          global SGLM_vf "u+(`SGLM_a')u^2"
          global SGLM_mu "glim_mu 0 ."
          exit
      }
      - if `todo' == 0 {
      = if 1 == 0 {
          gen double `eta' = -ln1p($SGLM_a/`mu')
          exit
      }
      - if `todo' == 1 {
      = if 1 == 1 {
          - gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
          = gen double __000010 = __00000Y+__00000Y*__00000Y*1
          - exit
      }
-----

> ----- end glim
> _v6 -----
      - if "$ML_off" == "" {
      = if "0" == "" {
          global ML_off 0
      }
      - tempname phi

```

```

- if "$SGLM_ph" == "" { global SGLM_ph = 1 }
= if "1.058102022059677" == "" { global SGLM_ph = 1 }
- scalar `phi' = $SGLM_ph
= scalar __000011 = 1.058102022059677
- if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
= if 1 { scalar __000011 = 1 }
- tempvar lli
- qui `VV' $SGLM_V 5 `eta' `mu' `lli'
= qui version 18.5: glim_v6 5 __00000X __00000Y __000012

```

```

> _____ begin glim
> _v6 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 5 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
        di as err `"dependent variable `y' has negative values"'
        exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
        di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
}
- if `todo' == 0 {
= if 5 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
}
- if `todo' == 1 {
= if 5 == 1 {
    gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    exit
}
- if `todo' == 2 {
= if 5 == 2 {

```

```

        gen double `return' = 1 + 2*`mu'*$SGLM_a
        exit
    }
- if `todo' == 3 {
= if 5 == 3 {
    local y "$SGLM_y"
    if "`y'" == "" {
        local y "`e(depvar)'"
    }
    gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/'mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu'*$SGLM_a))))
        exit
    }
- if `todo' == 4 {
= if 5 == 4 {
    local y "$SGLM_y"
    local k "$SGLM_a"
    if "`y'" == "" {
        local y "`e(depvar)'"
    }
    gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) -`mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
        exit
    }
- if `todo' == 5 {
= if 5 == 5 {
- local y "$SGLM_y"
= local y "piq_timing_max"
- if "`y'" == "" {
= if "piq_timing_max" == "" {
    local y "`e(depvar)'"
}
- tempname sig2
- if $SGLM_s1 {
= if 1 {
- scalar `sig2' = $SGLM_s1
= scalar __000013 = 1
- }
- else {
    if _caller() >= 11 {
        scalar `sig2' = $SGLM_ph* (($ML_N-$ML_kCns)/$ML_N)
    }
    else {
        scalar `sig2' = $SGLM_ph* (($ML_N-$ML_k)/$ML_N)
    }
}

```

```

    }
    - local m = 1/$SGLM_a
    = local m = 1/1
    - local lnalpha = ln(`m')
    = local lnalpha = ln(1)
    - gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/`m') + `y'*ln(`mu'/(`mu'+`m'))))
    = gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln
> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*l
> n(__00000Y/(__00000Y+1)))
    - exit
    _____
> _____ end glim
> _v6 _____
    - mlsun `lnf' = `lli'
    = mlsun __00000S = __000012
    - if `todo' == 0 | `lnf'==. { exit }
    = if 0 == 0 | __00000S==. { exit }
    _____
> _____ end glim
> _lf _____
    _____
> _____ begin glim
> _lf _____
    - version 6
    - args todo b lnf g H score
    - local VV : di "version " string(_caller()) ":"
    - tempvar eta mu dm u v
    - mlevel `eta' = `b'
    = mlevel __00000X = __00000R
    - qui $SGLM_L 1 `eta' `mu'
    = qui glim_l03 1 __00000X __00000Y
    _____
> _____ begin glim_
> l03 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
    = if 1 == -1 {
        global SGLM_lt "Log"
        if "$SGLM_m" == "1" {
            global SGLM_lf "ln(u)"
        }
        else global SGLM_lf "ln(u/$SGLM_m)"
        exit
    }

```

```

- if `todo' == 0 {
= if 1 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 1 == 1 {
  - gen double `mu' = $SGLM_m*exp(`eta')
= gen double __00000Y = 1*exp(__00000X)
- exit
}
}

> _____ end glim_
> l03 _____
  - qui $SGLM_mu `mu'
= qui glim_mu 0 . __00000Y
}

> _____ begin glim
> _mu _____
  - version 7
  - args min max mu
  - tempname eps
  - scalar `eps' = 1e-8
= scalar __000011 = 1e-8
  - replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __00000Y = 0+__000011 if __00000Y<=0+__000011
  - replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __00000Y = .-__000011 if __00000Y>=.-__000011
}

> _____ end glim
> _mu _____
  - qui $SGLM_L 2 `eta' `mu' `dmu'
= qui glim_l03 2 __00000X __00000Y __00000Z
}

> _____ begin glim_
> l03 _____
  - version 7
  - args todo eta mu return
  - if `todo' == -1 {
= if 2 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
}

```

```

- if `todo' == 0 {
= if 2 == 0 {
    gen double `eta' = ln(`mu'/$SGLM_m)
    exit
}
- if `todo' == 1 {
= if 2 == 1 {
    gen double `mu' = $SGLM_m*exp(`eta')
    exit
}
- if `todo' == 2 {
= if 2 == 2 {
    - gen double `return' = `mu'
= gen double __00000Z = __00000Y
    - exit
}
}

> _____ end glim_
> l03 _____
    - qui $SGLM_V 1 `eta' `mu' `v'
    = qui glim_v6 1 __00000X __00000Y __000010
}

> _____ begin glim
> _v6 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
= if 1 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
    di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
    }
- if `todo' == 0 {

```

```

= if 1 == 0 {
  gen double `eta' = -ln1p($SGLM_a/`mu')
  exit
}
- if `todo' == 1 {
= if 1 == 1 {
- gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
= gen double __000010 = __00000Y+__00000Y*__00000Y*1
- exit
}

> _____ end glim
> _v6 _____
- if "$ML_off" == "" {
= if "0" == "" {
  global ML_off 0
}
- tempname phi
- if "$SGLM_ph" == "" { global SGLM_ph = 1 }
= if "1.058102022059677" == "" { global SGLM_ph = 1 }
- scalar `phi' = $SGLM_ph
= scalar __000011 = 1.058102022059677
- if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
= if 1 { scalar __000011 = 1 }
- tempvar lli
- qui `VV' $SGLM_V 5 `eta' `mu' `lli'
= qui version 18.5: glim_v6 5 __00000X __00000Y __000012

> _____ begin glim
> _v6 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 5 == -1 {
  local y "$SGLM_y"
  local m "$SGLM_m"
  local touse "`eta'"
  capture assert `y'>=0 if `touse'
  if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
  }
  capture assert `y'==int(`y') if `touse'
  if _rc {
    di as txt `"note: `y' has noninteger values"'
  }
  global SGLM_vt "Neg. Binomial"

```

```

    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
}
- if `todo' == 0 {
= if 5 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
}
- if `todo' == 1 {
= if 5 == 1 {
    gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    exit
}
- if `todo' == 2 {
= if 5 == 2 {
    gen double `return' = 1 + 2*`mu'*$SGLM_a
    exit
}
- if `todo' == 3 {
= if 5 == 3 {
    local y "$SGLM_y"
    if "`y'" == "" {
        local y "`e(depvar)'"
    }
    gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/`mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu*$SGLM_a))))
    exit
}
- if `todo' == 4 {
= if 5 == 4 {
    local y "$SGLM_y"
    local k "$SGLM_a"
    if "`y'" == "" {
        local y "`e(depvar)'"
    }
    gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) -`mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
    exit
}
- if `todo' == 5 {
= if 5 == 5 {
    - local y "$SGLM_y"
    = local y "piq_timing_max"

```



```

- if "`y'" == "" {
= if "piq_timing_max" == "" {
  local y "`e(depvar)'"
}
- tempname sig2
- if $SGLM_s1 {
= if 1 {
- scalar `sig2' = $SGLM_s1
= scalar __000013 = 1
- }
- else {
  if _caller() >= 11 {
    scalar `sig2' = $SGLM_ph* (($ML_N-$ML_kCns)/$ML_N)
  }
  else {
    scalar `sig2' = $SGLM_ph* (($ML_N-$ML_k)/$ML_N)
  }
}
- local m = 1/$SGLM_a
= local m = 1/1
- local lnalpha = ln(`m')
= local lnalpha = ln(1)
- gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/`m') + `y'*ln(`mu'/(`mu'+`m'))))
= gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln
> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*ln
> n(__00000Y/(__00000Y+1)))
- exit

_____  

> _____ end glim
> _v6 _____
- mlsun `lnf' = `lli'
= mlsun __00000S = __000012
- if `todo' == 0 | `lnf'==. { exit }
= if 0 == 0 | __00000S==. { exit }

_____  

> _____ end glim
> _lf _____
_____  

> _____ begin glim
> _lf _____
- version 6
- args todo b lnf g H score
- local VV : di "version " string(_caller()) ":"
- tempvar eta mu dmu v
- mlevel `eta' = `b'

```

```

= mlevel __00000X = __00000R
- qui $SGLM_L 1 `eta' `mu'
= qui glim_l03 1 __00000X __00000Y

> _____ begin glim_
> l03 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
= if 1 == -1 {
    global SGLM_lt "Log"
    if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
    }
    else global SGLM_lf "ln(u/$SGLM_m)"
    exit
    }
    - if `todo' == 0 {
= if 1 == 0 {
    gen double `eta' = ln(`mu'/$SGLM_m)
    exit
    }
    - if `todo' == 1 {
= if 1 == 1 {
    - gen double `mu' = $SGLM_m*exp(`eta')
= gen double __00000Y = 1*exp(__00000X)
    - exit

> _____ end glim_
> l03 _____
    - qui $SGLM_mu `mu'
= qui glim_mu 0 . __00000Y

> _____ begin glim
> _mu _____
    - version 7
    - args min max mu
    - tempname eps
    - scalar `eps' = 1e-8
= scalar __000011 = 1e-8
    - replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __00000Y = 0+__000011 if __00000Y<=0+__000011
    - replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __00000Y = .-__000011 if __00000Y>=.-__000011

> _____ end glim

```

```

> _mu
- qui $SGLM_L 2 `eta' `mu' `dmu'
= qui glim_l03 2 __00000X __00000Y __00000Z

>
> l03
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 2 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
- if `todo' == 0 {
= if 2 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 2 == 1 {
  gen double `mu' = $SGLM_m*exp(`eta')
  exit
}
- if `todo' == 2 {
= if 2 == 2 {
  - gen double `return' = `mu'
= gen double __00000Z = __00000Y
- exit

>
> l03
- qui $SGLM_V 1 `eta' `mu' `v'
= qui glim_v6 1 __00000X __00000Y __000010

>
> _v6
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 1 == -1 {
  local y "$SGLM_y"
  local m "$SGLM_m"

```

```

    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
    di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
    }
- if `todo' == 0 {
= if 1 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
    }
- if `todo' == 1 {
= if 1 == 1 {
- gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
= gen double __000010 = __00000Y+__00000Y*__00000Y*1
- exit
}

> _____ end glim
> _v6 _____
- if "$ML_off" == "" {
= if "0" == "" {
    global ML_off 0
    }
- tempname phi
- if "$SGLM_ph" == "" { global SGLM_ph = 1 }
= if "1.058102022059677" == "" { global SGLM_ph = 1 }
- scalar `phi' = $SGLM_ph
= scalar __000011 = 1.058102022059677
- if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
= if 1 { scalar __000011 = 1 }
- tempvar lli
- qui `VV' $SGLM_V 5 `eta' `mu' `lli'
= qui version 18.5: glim_v6 5 __00000X __00000Y __000012

> _____ begin glim
> _v6 _____

```

```

- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 5 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
        di as err `"dependent variable `y' has negative values"'
        exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
        di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
}
- if `todo' == 0 {
= if 5 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
}
- if `todo' == 1 {
= if 5 == 1 {
    gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    exit
}
- if `todo' == 2 {
= if 5 == 2 {
    gen double `return' = 1 + 2*`mu'*$SGLM_a
    exit
}
- if `todo' == 3 {
= if 5 == 3 {
    local y "$SGLM_y"
    if "`y'" == "" {
        local y "`e(depvar)'"
    }
    gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/`mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu'*$SGLM_a))))

```

```

        exit
    }
- if `todo' == 4 {
= if 5 == 4 {
    local y "$SGLM_y"
    local k "$SGLM_a"
    if "`y'" == "" {
        local y "`e(depvar)'"
    }
    gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) - `mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
    exit
}
- if `todo' == 5 {
= if 5 == 5 {
- local y "$SGLM_y"
= local y "piq_timing_max"
- if "`y'" == "" {
= if "piq_timing_max" == "" {
    local y "`e(depvar)'"
}
- tempname sig2
- if $SGLM_s1 {
= if 1 {
- scalar `sig2' = $SGLM_s1
= scalar __000013 = 1
- }
- else {
    if _caller() >= 11 {
        scalar `sig2' = $SGLM_ph*($ML_N-$ML_kCns)/$ML_N
    }
    else {
        scalar `sig2' = $SGLM_ph*($ML_N-$ML_k)/$ML_N
    }
}
- local m = 1/$SGLM_a
= local m = 1/1
- local lnalpha = ln(`m')
= local lnalpha = ln(1)
- gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/`m') + `y'*ln(`mu'/(`mu'+`m'))))
= gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln
> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*ln
> n(__00000Y/(__00000Y+1)))
- exit

```

```

> _____ end glim
> _v6 _____
      - mlsum `lnf' = `lli'
      = mlsum __00000S = __000012
      - if `todo' == 0 | `lnf'==. { exit }
      = if 2 == 0 | __00000S==. { exit }
      - qui replace `score' = ($ML_y1 - `mu')/(`phi'*`v')*`dmu' if $ML
> _samp
      = qui replace __00000V = (piq_timing_max - __00000Y)/(__000011*_
> __000010)*__00000Z if __00000D
      - $ML_ec mlvecsum `lnf' `g' = `score'
      = * mlvecsum __00000S __00000T = __00000V
      - if `todo' == 1 | `lnf'==. { exit }
      = if 2 == 1 | __00000S==. { exit }
      - tempvar tt
      - qui gen double `tt' = sum($ML_w*($ML_y1-`mu')*($ML_y1-`mu')/`v
> ')
      = qui gen double __000013 = sum(__00000D*(piq_timing_max-__00000
> Y)*(piq_timing_max-__00000Y)/__000010)
      - if _caller() >= 11 {
      - global SGLM_ph = `tt'[_N]/($ML_N-$ML_kCns)
      = global SGLM_ph = __000013[_N]/(217-6)
      - }
      - else {
      global SGLM_ph = `tt'[_N]/($ML_N-$ML_k)
      }
      - qui $SGLM_A
      = qui
      - tempvar t1
      - qui gen double `t1' = `dmu'*`dmu'/`v' if $ML_samp
      = qui gen double __000014 = __00000Z*__00000Z/__000010 if __0000
> 0D
      - if "$SGLM_f" == "" {
      = if "-1" == "" {
      global SGLM_f = -1
      }
      - if $SGLM_f >= $ML_ic {
      = if -1 >= 1 {
      mlmatsum `lnf' `H' = (`t1')/`phi'
      exit
      }
      - tempvar dv d2mu
      - qui $SGLM_V 2 `eta' `mu' `dv'
      = qui glim_v6 2 __00000X __00000Y __000015
> _____ begin glim

```

```

> _v6 -----
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 2 == -1 {
  local y "$SGLM_y"
  local m "$SGLM_m"
  local touse "`eta'"
  capture assert `y'>=0 if `touse'
  if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
  }
  capture assert `y'==int(`y') if `touse'
  if _rc {
    di as txt `"note: `y' has noninteger values"'
  }
  global SGLM_vt "Neg. Binomial"
  local SGLM_a = round($SGLM_a,0.0001)
  global SGLM_vf "u+(`SGLM_a')u^2"
  global SGLM_mu "glim_mu 0 ."
  exit
}
- if `todo' == 0 {
= if 2 == 0 {
  gen double `eta' = -ln1p($SGLM_a/`mu')
  exit
}
- if `todo' == 1 {
= if 2 == 1 {
  gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
  exit
}
- if `todo' == 2 {
= if 2 == 2 {
  - gen double `return' = 1 + 2*`mu'*$SGLM_a
  = gen double __000015 = 1 + 2*__00000Y*1
  - exit
}
}
----- end glim
> _v6 -----
- qui $SGLM_L 3 `eta' `mu' `d2mu'
= qui glim_l03 3 __00000X __00000Y __000016
-----
> ----- begin glim_
> l03 -----

```



```

- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 3 == -1 {
    global SGLM_lt "Log"
    if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
    }
    else global SGLM_lf "ln(u/$SGLM_m)"
    exit
    }
- if `todo' == 0 {
= if 3 == 0 {
    gen double `eta' = ln(`mu'/$SGLM_m)
    exit
    }
- if `todo' == 1 {
= if 3 == 1 {
    gen double `mu' = $SGLM_m*exp(`eta')
    exit
    }
- if `todo' == 2 {
= if 3 == 2 {
    gen double `return' = `mu'
    exit
    }
- if `todo' == 3 {
= if 3 == 3 {
    - gen double `return' = `mu'
    = gen double __000016 = __00000Y
    - exit
}

> _____ end glim_
> l03 _____

- tempvar t2 t3
- qui gen double `t2' = `t1'/'v'*`dv' if $ML_samp
= qui gen double __000017 = __000014/__000010*__000015 if __0000

> 0D

- qui gen double `t3' = `d2mu'/'v' if $ML_samp
= qui gen double __000018 = __000016/__000010 if __00000D
- mlatsum `lnf' `H' = (`t1'-(`mu'-$ML_y1)*(`t2'-`t3'))/'phi'
= mlatsum __00000S __00000U = (__000014-(__00000Y-piq_timing_ma
> x)*(__000017-__000018))/__000011

> _____ end glim
> _lf _____

```

```

> _____ begin glim
> _lf _____
    - version 6
    - args todo b lnf g H score
    - local VW : di "version " string(_caller()) ":"
    - tempvar eta mu dm u v
    - mlevel `eta' = `b'
    = mlevel __00000X = __00000R
    - qui $SGLM_L 1 `eta' `mu'
    = qui glim_l03 1 __00000X __00000Y
    _____

> _____ begin glim_
> l03 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
    = if 1 == -1 {
        global SGLM_lt "Log"
        if "$SGLM_m" == "1" {
            global SGLM_lf "ln(u)"
        }
        else global SGLM_lf "ln(u/$SGLM_m)"
        exit
    }
    - if `todo' == 0 {
    = if 1 == 0 {
        gen double `eta' = ln(`mu'/$SGLM_m)
        exit
    }
    - if `todo' == 1 {
    = if 1 == 1 {
        - gen double `mu' = $SGLM_m*exp(`eta')
        = gen double __00000Y = 1*exp(__00000X)
        - exit
    }
    _____

> _____ end glim_
> l03 _____
    - qui $SGLM_mu `mu'
    = qui glim_mu 0 . __00000Y
    _____

> _____ begin glim
> _mu _____
    - version 7
    - args min max mu
    - tempname eps

```

```

- scalar `eps' = 1e-8
= scalar __000011 = 1e-8
- replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __00000Y = 0+__000011 if __00000Y<=0+__000011
- replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __00000Y = .-__000011 if __00000Y>=.-__000011

```

```

> _____ end glim
> _mu _____
- qui $SGLM_L 2 `eta' `mu' `dmu'
= qui glim_l03 2 __00000X __00000Y __00000Z

```

```

> _____ begin glim_
> l03 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 2 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
- if `todo' == 0 {
= if 2 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 2 == 1 {
  gen double `mu' = $SGLM_m*exp(`eta')
  exit
}
- if `todo' == 2 {
= if 2 == 2 {
  - gen double `return' = `mu'
  = gen double __00000Z = __00000Y
  - exit
}

```

```

> _____ end glim_
> l03 _____
- qui $SGLM_V 1 `eta' `mu' `v'
= qui glim_v6 1 __00000X __00000Y __000010

```

```

> ----- begin glim
> _v6
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
= if 1 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
    di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
    }
    - if `todo' == 0 {
= if 1 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
    }
    - if `todo' == 1 {
= if 1 == 1 {
    - gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    = gen double __000010 = __00000Y+__00000Y*__00000Y*1
    - exit
    }
}

> ----- end glim
> _v6
    - if "$ML_off" == "" {
= if "0" == "" {
    global ML_off 0
    }
    - tempname phi
    - if "$SGLM_ph" == "" { global SGLM_ph = 1 }
= if ".6410997329963271" == "" { global SGLM_ph = 1 }
    - scalar `phi' = $SGLM_ph
= scalar __000011 = .6410997329963271

```

```

- if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
= if 1 { scalar __000011 = 1 }
- tempvar lli
- qui `VV' $SGLM_V 5 `eta' `mu' `lli'
= qui version 18.5: glim_v6 5 __00000X __00000Y __000012

> _____ begin glim
> _v6 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 5 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
        di as err `"dependent variable `y' has negative values"'
        exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
        di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
}
- if `todo' == 0 {
= if 5 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
}
- if `todo' == 1 {
= if 5 == 1 {
    gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    exit
}
- if `todo' == 2 {
= if 5 == 2 {
    gen double `return' = 1 + 2*`mu'*$SGLM_a
    exit
}
- if `todo' == 3 {

```

```

= if 5 == 3 {
  local y "$SGLM_y"
  if "`y'" == "" {
    local y "`e(depvar)'"
  }
  gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/'mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu'*$SGLM_a))))
  exit
}
- if `todo' == 4 {
= if 5 == 4 {
  local y "$SGLM_y"
  local k "$SGLM_a"
  if "`y'" == "" {
    local y "`e(depvar)'"
  }
  gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) -`mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
  exit
}
- if `todo' == 5 {
= if 5 == 5 {
- local y "$SGLM_y"
= local y "piq_timing_max"
- if "`y'" == "" {
= if "piq_timing_max" == "" {
  local y "`e(depvar)'"
}
- tempname sig2
- if $SGLM_s1 {
= if 1 {
- scalar `sig2' = $SGLM_s1
= scalar __000013 = 1
- }
- else {
  if _caller() >= 11 {
    scalar `sig2' = $SGLM_ph* (($ML_N-$ML_kCns)/$ML_N)
  }
  else {
    scalar `sig2' = $SGLM_ph* (($ML_N-$ML_k)/$ML_N)
  }
}
- local m = 1/$SGLM_a
= local m = 1/1
- local lnalpha = ln(`m')

```

```

        = local lnalpha = ln(1)
        - gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/'m') + `y'*ln(`mu'/(`mu'+`m'))))
        = gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln
> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*ln
> n(__00000Y/(__00000Y+1)))
        - exit
    _____
> _____ end glim
> _v6 _____
    - mlsun `lnf' = `lli'
    = mlsun __00000S = __000012
    - if `todo' == 0 | `lnf'==. { exit }
    = if 0 == 0 | __00000S==. { exit }
    _____
> _____ end glim
> _lf _____
    _____
> _____ begin glim
> _lf _____
    - version 6
    - args todo b lnf g H score
    - local VV : di "version " string(_caller()) ":"
    - tempvar eta mu dm u v
    - mlevel `eta' = `b'
    = mlevel __00000X = __00000R
    - qui $SGLM_L 1 `eta' `mu'
    = qui glim_l03 1 __00000X __00000Y
    _____
> _____ begin glim_
> l03 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
    = if 1 == -1 {
        global SGLM_lt "Log"
        if "$SGLM_m" == "1" {
            global SGLM_lf "ln(u)"
        }
        else global SGLM_lf "ln(u/$SGLM_m)"
        exit
    }
    - if `todo' == 0 {
    = if 1 == 0 {
        gen double `eta' = ln(`mu'/$SGLM_m)
        exit
    }

```

```

    }
    - if `todo' == 1 {
= if 1 == 1 {
    - gen double `mu' = $SGLM_m*exp(`eta')
= gen double __00000Y = 1*exp(__00000X)
    - exit
}

> _____ end glim_
> l03 _____
    - qui $SGLM_mu `mu'
= qui glim_mu 0 . __00000Y
}

> _____ begin glim
> _mu _____
    - version 7
    - args min max mu
    - tempname eps
    - scalar `eps' = 1e-8
= scalar __000011 = 1e-8
    - replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __00000Y = 0+__000011 if __00000Y<=0+__000011
    - replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __00000Y = .-__000011 if __00000Y>=.-__000011
}

> _____ end glim
> _mu _____
    - qui $SGLM_L 2 `eta' `mu' `dmu'
= qui glim_l03 2 __00000X __00000Y __00000Z
}

> _____ begin glim_
> l03 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
= if 2 == -1 {
        global SGLM_lt "Log"
        if "$SGLM_m" == "1" {
            global SGLM_lf "ln(u)"
        }
        else global SGLM_lf "ln(u/$SGLM_m)"
        exit
    }
    - if `todo' == 0 {
= if 2 == 0 {
        gen double `eta' = ln(`mu'/$SGLM_m)
        exit
    }
}

```



```

    }
    - if `todo' == 1 {
= if 2 == 1 {
    gen double `mu' = $SGLM_m*exp(`eta')
    exit
    }
    - if `todo' == 2 {
= if 2 == 2 {
    - gen double `return' = `mu'
= gen double __00000Z = __00000Y
    - exit
}
}

> _____ end glim_
> l03 _____
    - qui $SGLM_V 1 `eta' `mu' `v'
= qui glim_v6 1 __00000X __00000Y __000010
}

> _____ begin glim
> _v6 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
= if 1 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
    di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
    }
    - if `todo' == 0 {
= if 1 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
    }
}

```

```

- if `todo' == 1 {
= if 1 == 1 {
- gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
= gen double __000010 = __00000Y+__00000Y*__00000Y*1
- exit
}

> _____ end glim
> _v6 _____
- if "$ML_off" == "" {
= if "0" == "" {
  global ML_off 0
}
- tempname phi
- if "$SGLM_ph" == "" { global SGLM_ph = 1 }
= if ".6410997329963271" == "" { global SGLM_ph = 1 }
- scalar `phi' = $SGLM_ph
= scalar __000011 = .6410997329963271
- if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
= if 1 { scalar __000011 = 1 }
- tempvar lli
- qui `VV' $SGLM_V 5 `eta' `mu' `lli'
= qui version 18.5: glim_v6 5 __00000X __00000Y __000012
}

> _____ begin glim
> _v6 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 5 == -1 {
  local y "$SGLM_y"
  local m "$SGLM_m"
  local touse "`eta'"
  capture assert `y'>=0 if `touse'
  if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
  }
  capture assert `y'==int(`y') if `touse'
  if _rc {
    di as txt `"note: `y' has noninteger values"'
  }
  global SGLM_vt "Neg. Binomial"
  local SGLM_a = round($SGLM_a,0.0001)
  global SGLM_vf "u+(`SGLM_a')u^2"
  global SGLM_mu "glim_mu 0 ."
  exit
}

```

```

    }
- if `todo' == 0 {
= if 5 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
    }
- if `todo' == 1 {
= if 5 == 1 {
    gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    exit
    }
- if `todo' == 2 {
= if 5 == 2 {
    gen double `return' = 1 + 2*`mu'*$SGLM_a
    exit
    }
- if `todo' == 3 {
= if 5 == 3 {
    local y "$SGLM_y"
    if "`y'" == "" {
        local y "`e(depvar)'"
    }
    gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/`mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu'*$SGLM_a))))
    exit
    }
- if `todo' == 4 {
= if 5 == 4 {
    local y "$SGLM_y"
    local k "$SGLM_a"
    if "`y'" == "" {
        local y "`e(depvar)'"
    }
    gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) - `mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
    exit
    }
- if `todo' == 5 {
= if 5 == 5 {
    - local y "$SGLM_y"
    = local y "piq_timing_max"
    - if "`y'" == "" {
    = if "piq_timing_max" == "" {
        local y "`e(depvar)'"
    }
}

```

```

- tempname sig2
- if $SGLM_s1 {
= if 1 {
- scalar `sig2' = $SGLM_s1
= scalar __000013 = 1
- }
- else {
  if _caller() >= 11 {
    scalar `sig2' = $SGLM_ph* (($ML_N-$ML_kCns)/$ML_N)
  }
  else {
    scalar `sig2' = $SGLM_ph* (($ML_N-$ML_k)/$ML_N)
  }
}
- local m = 1/$SGLM_a
= local m = 1/1
- local lnalpha = ln(`m')
= local lnalpha = ln(1)
- gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/'m') + `y'*ln(`mu'/(`mu'+`m'))))
= gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln
> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*l
> n(__00000Y/(__00000Y+1)))
- exit

> _____ end glim
> _v6 _____
- mlsun `lnf' = `lli'
= mlsun __00000S = __000012
- if `todo' == 0 | `lnf'==. { exit }
= if 0 == 0 | __00000S==. { exit }

> _____ end glim
> _lf _____

> _____ begin glim
> _lf _____
- version 6
- args todo b lnf g H score
- local VV : di "version " string(_caller()) ":"
- tempvar eta mu dm u v
- mlevel `eta' = `b'
= mlevel __00000X = __00000R
- qui $SGLM_L 1 `eta' `mu'
= qui glim_l03 1 __00000X __00000Y

```

```

> _____ begin glim_
> l03 _____
      - version 7
      - args todo eta mu return
      - if `todo' == -1 {
= if 1 == -1 {
      global SGLM_lt "Log"
      if "$SGLM_m" == "1" {
      global SGLM_lf "ln(u)"
      }
      else global SGLM_lf "ln(u/$SGLM_m)"
      exit
      }
      - if `todo' == 0 {
= if 1 == 0 {
      gen double `eta' = ln(`mu'/$SGLM_m)
      exit
      }
      - if `todo' == 1 {
= if 1 == 1 {
      - gen double `mu' = $SGLM_m*exp(`eta')
      = gen double __00000Y = 1*exp(__00000X)
      - exit
      }
      }

> _____ end glim_
> l03 _____
      - qui $SGLM_mu `mu'
      = qui glim_mu 0 . __00000Y

> _____ begin glim
> _mu _____
      - version 7
      - args min max mu
      - tempname eps
      - scalar `eps' = 1e-8
      = scalar __000011 = 1e-8
      - replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
      = replace __00000Y = 0+__000011 if __00000Y<=0+__000011
      - replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
      = replace __00000Y = .-__000011 if __00000Y>=.-__000011

> _____ end glim
> _mu _____
      - qui $SGLM_L 2 `eta' `mu' `dmu'
      = qui glim_l03 2 __00000X __00000Y __00000Z

```

```

> ----- begin glim_
> l03 -----
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
= if 2 == -1 {
    global SGLM_lt "Log"
    if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
    }
    else global SGLM_lf "ln(u/$SGLM_m)"
    exit
    }
    - if `todo' == 0 {
= if 2 == 0 {
    gen double `eta' = ln(`mu'/$SGLM_m)
    exit
    }
    - if `todo' == 1 {
= if 2 == 1 {
    gen double `mu' = $SGLM_m*exp(`eta')
    exit
    }
    - if `todo' == 2 {
= if 2 == 2 {
    - gen double `return' = `mu'
    = gen double __00000Z = __00000Y
    - exit
    }
}

> ----- end glim_
> l03 -----
    - qui $SGLM_V 1 `eta' `mu' `v'
    = qui glim_v6 1 __00000X __00000Y __000010
}

> ----- begin glim_
> _v6 -----
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
= if 1 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
    di as err `"dependent variable `y' has negative values"'

```

```

        exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
        di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
    }
- if `todo' == 0 {
= if 1 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
    }
- if `todo' == 1 {
= if 1 == 1 {
    - gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    = gen double __000010 = __00000Y+__00000Y*__00000Y*1
    - exit
}

> _____ end glim
> _v6 _____
    - if "$ML_off" == "" {
    = if "0" == "" {
        global ML_off 0
    }
    - tempname phi
    - if "$SGLM_ph" == "" { global SGLM_ph = 1 }
    = if ".6410997329963271" == "" { global SGLM_ph = 1 }
    - scalar `phi' = $SGLM_ph
    = scalar __000011 = .6410997329963271
    - if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
    = if 1 { scalar __000011 = 1 }
    - tempvar lli
    - qui `VV' $SGLM_V 5 `eta' `mu' `lli'
    = qui version 18.5: glim_v6 5 __00000X __00000Y __000012

> _____ begin glim
> _v6 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
    = if 5 == -1 {

```

```

local y "$SGLM_y"
local m "$SGLM_m"
local touse "`eta'"
capture assert `y'>=0 if `touse'
if _rc {
di as err `"dependent variable `y' has negative values"'
exit 499
}
capture assert `y'==int(`y') if `touse'
if _rc {
di as txt `"note: `y' has noninteger values"'
}
global SGLM_vt "Neg. Binomial"
local SGLM_a = round($SGLM_a,0.0001)
global SGLM_vf "u+(`SGLM_a')u^2"
global SGLM_mu "glim_mu 0 ."
exit
}
- if `todo' == 0 {
= if 5 == 0 {
gen double `eta' = -ln1p($SGLM_a/`mu')
exit
}
- if `todo' == 1 {
= if 5 == 1 {
gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
exit
}
- if `todo' == 2 {
= if 5 == 2 {
gen double `return' = 1 + 2*`mu'*$SGLM_a
exit
}
- if `todo' == 3 {
= if 5 == 3 {
local y "$SGLM_y"
if "`y'" == "" {
local y "`e(depvar)'"
}
gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/`mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu'*$SGLM_a))))
exit
}
- if `todo' == 4 {
= if 5 == 4 {

```



```

        local y "$SGLM_y"
        local k "$SGLM_a"
        if "`y'" == "" {
            local y "`e(depvar)'"
        }
        gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) - `mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
        exit
    }
    - if `todo' == 5 {
    = if 5 == 5 {
    - local y "$SGLM_y"
    = local y "piq_timing_max"
    - if "`y'" == "" {
    = if "piq_timing_max" == "" {
        local y "`e(depvar)'"
    }
    - tempname sig2
    - if $SGLM_s1 {
    = if 1 {
    - scalar `sig2' = $SGLM_s1
    = scalar __000013 = 1
    - }
    - else {
        if _caller() >= 11 {
            scalar `sig2' = $SGLM_ph*($ML_N-$ML_kCns)/$ML_N
        }
        else {
            scalar `sig2' = $SGLM_ph*($ML_N-$ML_k)/$ML_N
        }
    }
    - local m = 1/$SGLM_a
    = local m = 1/1
    - local lnalpha = ln(`m')
    = local lnalpha = ln(1)
    - gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/`m') + `y'*ln(`mu'/(`mu'+`m'))))
    = gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln
> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*l
> n(__00000Y/(__00000Y+1)))
    - exit
}

> _____ end glim
> _v6 _____
    - mlsun `lnf' = `lli'
    = mlsun __00000S = __000012

```

```

- if `todo' == 0 | `lnf'==. { exit }
= if 2 == 0 | __00000S==. { exit }
- qui replace `score' = ($ML_y1 - `mu')/(`phi'*`v')*`dmu' if $ML
> _samp
= qui replace __00000V = (piq_timing_max - __00000Y)/(__000011*_
> _000010)*__00000Z if __00000D
- $ML_ec mlvecsum `lnf' `g' = `score'
= * mlvecsum __00000S __00000T = __00000V
- if `todo' == 1 | `lnf'==. { exit }
= if 2 == 1 | __00000S==. { exit }
- tempvar tt
- qui gen double `tt' = sum($ML_w*($ML_y1-`mu')*($ML_y1-`mu')/`v
> ')
= qui gen double __000013 = sum(__00000D*(piq_timing_max-__00000
> Y)*(piq_timing_max-__00000Y)/__000010)
- if _caller() >= 11 {
- global SGLM_ph = `tt'[_N]/($ML_N-$ML_kCns)
= global SGLM_ph = __000013[_N]/(217-6)
- }
- else {
global SGLM_ph = `tt'[_N]/($ML_N-$ML_k)
}
- qui $SGLM_A
= qui
- tempvar t1
- qui gen double `t1' = `dmu'*`dmu'/`v' if $ML_samp
= qui gen double __000014 = __00000Z*__00000Z/__000010 if __0000
> 0D
- if "$SGLM_f" == "" {
= if "-1" == "" {
global SGLM_f = -1
}
- if $SGLM_f >= $ML_ic {
= if -1 >= 2 {
mlmatsum `lnf' `H' = (`t1')/`phi'
exit
}
- tempvar dv d2mu
- qui $SGLM_V 2 `eta' `mu' `dv'
= qui glim_v6 2 __00000X __00000Y __000015
_____
> _____ begin glim
> _v6 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {

```

```

= if 2 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
        di as err `"dependent variable `y' has negative values"'
        exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
        di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
}
- if `todo' == 0 {
= if 2 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
}
- if `todo' == 1 {
= if 2 == 1 {
    gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    exit
}
- if `todo' == 2 {
= if 2 == 2 {
    - gen double `return' = 1 + 2*`mu'*$SGLM_a
= gen double __000015 = 1 + 2*__00000Y*1
- exit

```

```
> _____ end glim
```

```
> _v6 _____
```

```

- qui $SGLM_L 3 `eta' `mu' `d2mu'
= qui glim_l03 3 __00000X __00000Y __000016

```

```
> _____ begin glim_
```

```
> l03 _____
```

```

- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 3 == -1 {

```

```

global SGLM_lt "Log"
if "$SGLM_m" == "1" {
global SGLM_lf "ln(u)"
}
else global SGLM_lf "ln(u/$SGLM_m)"
exit
}
- if `todo' == 0 {
= if 3 == 0 {
gen double `eta' = ln(`mu'/$SGLM_m)
exit
}
- if `todo' == 1 {
= if 3 == 1 {
gen double `mu' = $SGLM_m*exp(`eta')
exit
}
- if `todo' == 2 {
= if 3 == 2 {
gen double `return' = `mu'
exit
}
- if `todo' == 3 {
= if 3 == 3 {
- gen double `return' = `mu'
= gen double __000016 = __00000Y
- exit
}
}

> _____ end glim_
> l03 _____
- tempvar t2 t3
- qui gen double `t2' = `t1'/'v'*`dv' if $ML_samp
= qui gen double __000017 = __000014/__000010*__000015 if __0000
> 0D
- qui gen double `t3' = `d2mu'/'v' if $ML_samp
= qui gen double __000018 = __000016/__000010 if __00000D
- mlatsum `lnf' `H' = (`t1'-(`mu'-$ML_y1)*(`t2'-`t3'))/'phi'
= mlatsum __00000S __00000U = (__000014-(__00000Y-piq_timing_ma
> x)*(__000017-__000018))/__000011
_____
> _____ end glim
> _lf _____
_____
> _____ begin glim
> _lf _____
- version 6

```

```

- args todo b lnf g H score
- local VV : di "version " string(_caller()) ":"
- tempvar eta mu dm u v
- mlevel `eta' = `b'
= mlevel __00000X = __00000R
- qui $SGLM_L 1 `eta' `mu'
= qui glim_l03 1 __00000X __00000Y

> _____ begin glim_
> l03 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 1 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
- if `todo' == 0 {
= if 1 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 1 == 1 {
  - gen double `mu' = $SGLM_m*exp(`eta')
= gen double __00000Y = 1*exp(__00000X)
- exit

> _____ end glim_
> l03 _____
- qui $SGLM_mu `mu'
= qui glim_mu 0 . __00000Y

> _____ begin glim
> _mu _____
- version 7
- args min max mu
- tempname eps
- scalar `eps' = 1e-8
= scalar __000011 = 1e-8
- replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __00000Y = 0+__000011 if __00000Y<=0+__000011

```

```

- replace `mu' = `max' - `eps' if `mu' >= `max' - `eps'
= replace __00000Y = . - __000011 if __00000Y >= . - __000011
_____
> _____ end glim
> _mu _____
- qui $SGLM_L 2 `eta' `mu' `dmu'
= qui glim_l03 2 __00000X __00000Y __00000Z
_____
> _____ begin glim_
> l03 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 2 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
- if `todo' == 0 {
= if 2 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 2 == 1 {
  gen double `mu' = $SGLM_m*exp(`eta')
  exit
}
- if `todo' == 2 {
= if 2 == 2 {
  - gen double `return' = `mu'
  = gen double __00000Z = __00000Y
  - exit
}
_____
> _____ end glim_
> l03 _____
- qui $SGLM_V 1 `eta' `mu' `v'
= qui glim_v6 1 __00000X __00000Y __000010
_____
> _____ begin glim
> _v6 _____
- version 7
- args todo eta mu return

```

```

- if `todo' == -1 {
= if 1 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
    di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
    }
- if `todo' == 0 {
= if 1 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
    }
- if `todo' == 1 {
= if 1 == 1 {
    - gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    = gen double __000010 = __00000Y+__00000Y*__00000Y*1
    - exit

```

> _____ end glim

> _v6

```

- if "$ML_off" == "" {
= if "0" == "" {
    global ML_off 0
    }
- tempname phi
- if "$SGLM_ph" == "" { global SGLM_ph = 1 }
= if ".6534646623427515" == "" { global SGLM_ph = 1 }
- scalar `phi' = $SGLM_ph
= scalar __000011 = .6534646623427515
- if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
= if 1 { scalar __000011 = 1 }
- tempvar lli
- qui `VV' $SGLM_V 5 `eta' `mu' `lli'

```

```
= qui version 18.5: glim_v6 5 __00000X __00000Y __000012
```

```
> _____ begin glim
```

```
> _v6 _____  
- version 7  
- args todo eta mu return  
- if `todo' == -1 {  
= if 5 == -1 {  
  local y "$SGLM_y"  
  local m "$SGLM_m"  
  local touse "`eta'"  
  capture assert `y'>=0 if `touse'  
  if _rc {  
    di as err `"dependent variable `y' has negative values"  
    exit 499  
  }  
  capture assert `y'==int(`y') if `touse'  
  if _rc {  
    di as txt `"note: `y' has noninteger values"  
  }  
  global SGLM_vt "Neg. Binomial"  
  local SGLM_a = round($SGLM_a,0.0001)  
  global SGLM_vf "u+(`SGLM_a')u^2"  
  global SGLM_mu "glim_mu 0 ."  
  exit  
}  
- if `todo' == 0 {  
= if 5 == 0 {  
  gen double `eta' = -ln1p($SGLM_a/`mu')  
  exit  
}  
- if `todo' == 1 {  
= if 5 == 1 {  
  gen double `return' = `mu'+`mu'*`mu'*$SGLM_a  
  exit  
}  
- if `todo' == 2 {  
= if 5 == 2 {  
  gen double `return' = 1 + 2*`mu'*$SGLM_a  
  exit  
}  
- if `todo' == 3 {  
= if 5 == 3 {  
  local y "$SGLM_y"  
  if "`y'" == "" {  
    local y "`e(depvar)'"
```



```

    }
    gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/'mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu'*$SGLM_a))))
    exit
  }
  - if `todo' == 4 {
= if 5 == 4 {
    local y "$SGLM_y"
    local k "$SGLM_a"
    if "`y'" == "" {
      local y "`e(depvar)'"
    }
    gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) - `mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
    exit
  }
  - if `todo' == 5 {
= if 5 == 5 {
    - local y "$SGLM_y"
    = local y "piq_timing_max"
    - if "`y'" == "" {
    = if "piq_timing_max" == "" {
      local y "`e(depvar)'"
    }
    - tempname sig2
    - if $SGLM_s1 {
    = if 1 {
    - scalar `sig2' = $SGLM_s1
    = scalar __000013 = 1
    - }
    - else {
      if _caller() >= 11 {
        scalar `sig2' = $SGLM_ph* (($ML_N-$ML_kCns)/$ML_N)
      }
      else {
        scalar `sig2' = $SGLM_ph* (($ML_N-$ML_k)/$ML_N)
      }
    }
    - local m = 1/$SGLM_a
    = local m = 1/1
    - local lnalpha = ln(`m')
    = local lnalpha = ln(1)
    - gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/'m') + `y'*ln(`mu'/(`mu'+`m'))))
    = gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln

```

```

> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*ln
> n(__00000Y/(__00000Y+1)))
    - exit
    _____
> _____ end glim
> _v6 _____
    - mlsun `lnf' = `lli'
    = mlsun __00000S = __000012
    - if `todo' == 0 | `lnf'==. { exit }
    = if 0 == 0 | __00000S==. { exit }
    _____
> _____ end glim
> _lf _____
    _____
> _____ begin glim
> _lf _____
    - version 6
    - args todo b lnf g H score
    - local VV : di "version " string(_caller()) ":"
    - tempvar eta mu dmu v
    - mlevel `eta' = `b'
    = mlevel __00000X = __00000R
    - qui $SGLM_L 1 `eta' `mu'
    = qui glim_l03 1 __00000X __00000Y
    _____
> _____ begin glim_
> l03 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
    = if 1 == -1 {
        global SGLM_lt "Log"
        if "$SGLM_m" == "1" {
            global SGLM_lf "ln(u)"
        }
        else global SGLM_lf "ln(u/$SGLM_m)"
        exit
    }
    - if `todo' == 0 {
    = if 1 == 0 {
        gen double `eta' = ln(`mu'/$SGLM_m)
        exit
    }
    - if `todo' == 1 {
    = if 1 == 1 {
        - gen double `mu' = $SGLM_m*exp(`eta')

```

```

= gen double __00000Y = 1*exp(__00000X)
- exit
_____
> _____ end glim_
> l03 _____
- qui $SGLM_mu `mu'
= qui glim_mu 0 . __00000Y
_____
> _____ begin glim
> _mu _____
- version 7
- args min max mu
- tempname eps
- scalar `eps' = 1e-8
= scalar __000011 = 1e-8
- replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __00000Y = 0+__000011 if __00000Y<=0+__000011
- replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __00000Y = .-__000011 if __00000Y>=.-__000011
_____
> _____ end glim
> _mu _____
- qui $SGLM_L 2 `eta' `mu' `dmu'
= qui glim_l03 2 __00000X __00000Y __00000Z
_____
> _____ begin glim_
> l03 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 2 == -1 {
global SGLM_lt "Log"
if "$SGLM_m" == "1" {
global SGLM_lf "ln(u)"
}
else global SGLM_lf "ln(u/$SGLM_m)"
exit
}
- if `todo' == 0 {
= if 2 == 0 {
gen double `eta' = ln(`mu'/$SGLM_m)
exit
}
- if `todo' == 1 {
= if 2 == 1 {
gen double `mu' = $SGLM_m*exp(`eta')

```

```

        exit
    }
    - if `todo' == 2 {
    = if 2 == 2 {
    - gen double `return' = `mu'
    = gen double __00000Z = __00000Y
    - exit
    }
}
> _____ end glim_
> l03 _____
    - qui $SGLM_V 1 `eta' `mu' `v'
    = qui glim_v6 1 __00000X __00000Y __000010
    }
}
> _____ begin glim
> _v6 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
    = if 1 == -1 {
        local y "$SGLM_y"
        local m "$SGLM_m"
        local touse "`eta'"
        capture assert `y'>=0 if `touse'
        if _rc {
            di as err `"dependent variable `y' has negative values"'
            exit 499
        }
        capture assert `y'==int(`y') if `touse'
        if _rc {
            di as txt `"note: `y' has noninteger values"'
        }
        global SGLM_vt "Neg. Binomial"
        local SGLM_a = round($SGLM_a,0.0001)
        global SGLM_vf "u+(`SGLM_a')u^2"
        global SGLM_mu "glim_mu 0 ."
        exit
    }
    - if `todo' == 0 {
    = if 1 == 0 {
        gen double `eta' = -ln1p($SGLM_a/`mu')
        exit
    }
    - if `todo' == 1 {
    = if 1 == 1 {
        - gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
        = gen double __000010 = __00000Y+__00000Y*__00000Y*1
    }
    }
}

```

```

- exit
> _____ end glim
> _v6 _____
- if "$ML_off" == "" {
= if "0" == "" {
  global ML_off 0
}
- tempname phi
- if "$SGLM_ph" == "" { global SGLM_ph = 1 }
= if ".6534646623427515" == "" { global SGLM_ph = 1 }
- scalar `phi' = $SGLM_ph
= scalar __000011 = .6534646623427515
- if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
= if 1 { scalar __000011 = 1 }
- tempvar lli
- qui `VV' $SGLM_V 5 `eta' `mu' `lli'
= qui version 18.5: glim_v6 5 __00000X __00000Y __000012
> _____ begin glim
> _v6 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 5 == -1 {
  local y "$SGLM_y"
  local m "$SGLM_m"
  local touse "`eta'"
  capture assert `y'>=0 if `touse'
  if _rc {
    di as err `"dependent variable `y' has negative values"'
    exit 499
  }
  capture assert `y'==int(`y') if `touse'
  if _rc {
    di as txt `"note: `y' has noninteger values"'
  }
  global SGLM_vt "Neg. Binomial"
  local SGLM_a = round($SGLM_a,0.0001)
  global SGLM_vf "u+(`SGLM_a')u^2"
  global SGLM_mu "glim_mu 0 ."
  exit
}
- if `todo' == 0 {
= if 5 == 0 {
  gen double `eta' = -ln1p($SGLM_a/`mu')

```

```

        exit
    }
- if `todo' == 1 {
= if 5 == 1 {
    gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    exit
}
- if `todo' == 2 {
= if 5 == 2 {
    gen double `return' = 1 + 2*`mu'*$SGLM_a
    exit
}
- if `todo' == 3 {
= if 5 == 3 {
    local y "$SGLM_y"
    if "`y'" == "" {
        local y "`e(depvar)'"
    }
    gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/`mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu'*$SGLM_a))))
        exit
    }
- if `todo' == 4 {
= if 5 == 4 {
    local y "$SGLM_y"
    local k "$SGLM_a"
    if "`y'" == "" {
        local y "`e(depvar)'"
    }
    gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) -`mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
        exit
    }
- if `todo' == 5 {
= if 5 == 5 {
- local y "$SGLM_y"
= local y "piq_timing_max"
- if "`y'" == "" {
= if "piq_timing_max" == "" {
    local y "`e(depvar)'"
}
- tempname sig2
- if $SGLM_s1 {
= if 1 {
- scalar `sig2' = $SGLM_s1

```

```

= scalar __000013 = 1
- }
- else {
  if _caller() >= 11 {
    scalar `sig2' = $SGLM_ph* (($ML_N-$ML_kCns)/$ML_N)
  }
  else {
    scalar `sig2' = $SGLM_ph* (($ML_N-$ML_k)/$ML_N)
  }
}
- local m = 1/$SGLM_a
= local m = 1/1
- local lnalpha = ln(`m')
= local lnalpha = ln(1)
- gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/'m') + `y'*ln(`mu'/(`mu'+`m'))))
= gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln
> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*ln
> n(__00000Y/(__00000Y+1)))
- exit

> _____ end glim
> _v6 _____
  - msum `lnf' = `lli'
  = msum __00000S = __000012
  - if `todo' == 0 | `lnf'==. { exit }
  = if 0 == 0 | __00000S==. { exit }

> _____ end glim
> _lf _____

> _____ begin glim
> _lf _____
  - version 6
  - args todo b lnf g H score
  - local VW : di "version " string(_caller()) ":"
  - tempvar eta mu dm u v
  - mlevel `eta' = `b'
  = mlevel __00000X = __00000R
  - qui $SGLM_L 1 `eta' `mu'
  = qui glim_l03 1 __00000X __00000Y

> _____ begin glim_
> l03 _____
  - version 7
  - args todo eta mu return

```

```

- if `todo' == -1 {
= if 1 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
- if `todo' == 0 {
= if 1 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 1 == 1 {
  - gen double `mu' = $SGLM_m*exp(`eta')
= gen double __00000Y = 1*exp(__00000X)
- exit
}

> _____ end glim_
> l03 _____

- qui $SGLM_mu `mu'
= qui glim_mu 0 . __00000Y
}

> _____ begin glim
> _mu _____

- version 7
- args min max mu
- tempname eps
- scalar `eps' = 1e-8
= scalar __000011 = 1e-8
- replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __00000Y = 0+__000011 if __00000Y<=0+__000011
- replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __00000Y = .-__000011 if __00000Y>=.-__000011
}

> _____ end glim
> _mu _____

- qui $SGLM_L 2 `eta' `mu' `dmu'
= qui glim_l03 2 __00000X __00000Y __00000Z
}

> _____ begin glim_
> l03 _____

- version 7
- args todo eta mu return

```



```

- if `todo' == -1 {
= if 2 == -1 {
    global SGLM_lt "Log"
    if "$SGLM_m" == "1" {
        global SGLM_lf "ln(u)"
    }
    else global SGLM_lf "ln(u/$SGLM_m)"
    exit
}
- if `todo' == 0 {
= if 2 == 0 {
    gen double `eta' = ln(`mu'/$SGLM_m)
    exit
}
- if `todo' == 1 {
= if 2 == 1 {
    gen double `mu' = $SGLM_m*exp(`eta')
    exit
}
- if `todo' == 2 {
= if 2 == 2 {
    - gen double `return' = `mu'
    = gen double __00000Z = __00000Y
    - exit
}
}
> _____ end glim_
> l03 _____
    - qui $SGLM_V 1 `eta' `mu' `v'
    = qui glim_v6 1 __00000X __00000Y __000010
}
> _____ begin glim
> _v6 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
= if 1 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
        di as err `"dependent variable `y' has negative values"
        exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {

```

```

di as txt `"note: `y' has noninteger values"'
}
global SGLM_vt "Neg. Binomial"
local SGLM_a = round($SGLM_a,0.0001)
global SGLM_vf "u+(`SGLM_a')u^2"
global SGLM_mu "glim_mu 0 ."
exit
}
- if `todo' == 0 {
= if 1 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
}
- if `todo' == 1 {
= if 1 == 1 {
    - gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    = gen double __000010 = __00000Y+__00000Y*__00000Y*1
    - exit
}
}

> _____ end glim
> _v6 _____
    - if "$ML_off" == "" {
    = if "0" == "" {
        global ML_off 0
    }
    - tempname phi
    - if "$SGLM_ph" == "" { global SGLM_ph = 1 }
    = if ".6534646623427515" == "" { global SGLM_ph = 1 }
    - scalar `phi' = $SGLM_ph
    = scalar __000011 = .6534646623427515
    - if $SGLM_s1 { scalar `phi' = $SGLM_s1 }
    = if 1 { scalar __000011 = 1 }
    - tempvar lli
    - qui `VV' $SGLM_V 5 `eta' `mu' `lli'
    = qui version 18.5: glim_v6 5 __00000X __00000Y __000012
}

> _____ begin glim
> _v6 _____
    - version 7
    - args todo eta mu return
    - if `todo' == -1 {
    = if 5 == -1 {
        local y "$SGLM_y"
        local m "$SGLM_m"
        local touse "`eta'"
        capture assert `y'>=0 if `touse'
    }
}

```

```

if _rc {
di as err `"dependent variable `y' has negative values"'
exit 499
}
capture assert `y'==int(`y') if `touse'
if _rc {
di as txt `"note: `y' has noninteger values"'
}
global SGLM_vt "Neg. Binomial"
local SGLM_a = round($SGLM_a,0.0001)
global SGLM_vf "u+(`SGLM_a')u^2"
global SGLM_mu "glim_mu 0 ."
exit
}
- if `todo' == 0 {
= if 5 == 0 {
gen double `eta' = -ln1p($SGLM_a/`mu')
exit
}
- if `todo' == 1 {
= if 5 == 1 {
gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
exit
}
- if `todo' == 2 {
= if 5 == 2 {
gen double `return' = 1 + 2*`mu'*$SGLM_a
exit
}
- if `todo' == 3 {
= if 5 == 3 {
local y "$SGLM_y"
if "`y'" == "" {
local y "`e(depvar)'"
}
gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGL
> M_a, 2*(`y'*ln(`y'/`mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`
> mu'*$SGLM_a))))
exit
}
- if `todo' == 4 {
= if 5 == 4 {
local y "$SGLM_y"
local k "$SGLM_a"
if "`y'" == "" {
local y "`e(depvar)'"

```

```

    }
    gen double `return' = ((_hyp2f1(-`k'*`y') - _hyp2f1(-`k'*`mu
> ')) + 3/2*(`y'^(2/3) - `mu'^(2/3)))/((`mu'+`k'*`mu'^2)^(1/6))
    exit
  }
  - if `todo' == 5 {
= if 5 == 5 {
  - local y "$SGLM_y"
= local y "piq_timing_max"
  - if "`y'" == "" {
= if "piq_timing_max" == "" {
    local y "`e(depvar)'"
  }
  - tempname sig2
  - if $SGLM_s1 {
= if 1 {
  - scalar `sig2' = $SGLM_s1
= scalar __000013 = 1
  - }
  - else {
    if _caller() >= 11 {
      scalar `sig2' = $SGLM_ph* (($ML_N-$ML_kCns)/$ML_N)
    }
    else {
      scalar `sig2' = $SGLM_ph* (($ML_N-$ML_k)/$ML_N)
    }
  }
  - local m = 1/$SGLM_a
= local m = 1/1
  - local lnalpha = ln(`m')
= local lnalpha = ln(1)
  - gen double `return' = `sig2'*(lngamma(`m'+`y')-lngamma(`y'+1
> ) - lngamma(`m') - `m'*ln1p(`mu'/`m') + `y'*ln(`mu'/(`mu'+`m'))))
    = gen double __000012 = __000013*(lngamma(1+piq_timing_max)-ln
> gamma(piq_timing_max+1) - lngamma(1) - 1*ln1p(__00000Y/1) + piq_timing_max*l
> n(__00000Y/(__00000Y+1)))
    - exit
  }
}

> _____ end glim
> _v6 _____
  - mlsun `lnf' = `lli'
= mlsun __00000S = __000012
  - if `todo' == 0 | `lnf'==. { exit }
= if 2 == 0 | __00000S==. { exit }
  - qui replace `score' = ($ML_y1 - `mu')/(`phi'*`v')*`dmu' if $ML
> _samp

```

```

= qui replace __00000V = (piq_timing_max - __00000Y)/(__000011*_
> _000010)*__00000Z if __00000D
- $ML_ec mlvecsum `lnf' `g' = `score'
= * mlvecsum __00000S __00000T = __00000V
- if `todo' == 1 | `lnf'==. { exit }
= if 2 == 1 | __00000S==. { exit }
- tempvar tt
- qui gen double `tt' = sum($ML_w*($ML_y1-`mu')*($ML_y1-`mu')/`v
> ')
= qui gen double __000013 = sum(__00000D*(piq_timing_max-__00000
> Y)*(piq_timing_max-__00000Y)/__000010)
- if _caller() >= 11 {
- global SGLM_ph = `tt'[_N]/($ML_N-$ML_kCns)
= global SGLM_ph = __000013[_N]/(217-6)
- }
- else {
global SGLM_ph = `tt'[_N]/($ML_N-$ML_k)
}
- qui $SGLM_A
= qui
- tempvar t1
- qui gen double `t1' = `dmu'*`dmu'/`v' if $ML_samp
= qui gen double __000014 = __00000Z*__00000Z/__000010 if __0000
> 0D
- if "$SGLM_f" == "" {
= if "-1" == "" {
global SGLM_f = -1
}
- if $SGLM_f >= $ML_ic {
= if -1 >= 3 {
mlmatsum `lnf' `H' = (`t1')/`phi'
exit
}
- tempvar dv d2mu
- qui $SGLM_V 2 `eta' `mu' `dv'
= qui glim_v6 2 __00000X __00000Y __000015

> _____ begin glim
> _v6 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 2 == -1 {
local y "$SGLM_y"
local m "$SGLM_m"
local touse "`eta'"

```

```

capture assert `y'>=0 if `touse'
if _rc {
di as err `"dependent variable `y' has negative values"'
exit 499
}
capture assert `y'==int(`y') if `touse'
if _rc {
di as txt `"note: `y' has noninteger values"'
}
global SGLM_vt "Neg. Binomial"
local SGLM_a = round($SGLM_a,0.0001)
global SGLM_vf "u+(`SGLM_a')u^2"
global SGLM_mu "glim_mu 0 ."
exit
}
- if `todo' == 0 {
= if 2 == 0 {
gen double `eta' = -ln1p($SGLM_a/`mu')
exit
}
- if `todo' == 1 {
= if 2 == 1 {
gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
exit
}
- if `todo' == 2 {
= if 2 == 2 {
- gen double `return' = 1 + 2*`mu'*$SGLM_a
= gen double __000015 = 1 + 2*__00000Y*1
- exit
}
}

> _____ end glim
> _v6 _____
- qui $SGLM_L 3 `eta' `mu' `d2mu'
= qui glim_l03 3 __00000X __00000Y __000016
_____

> _____ begin glim_
> l03 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {
= if 3 == -1 {
global SGLM_lt "Log"
if "$SGLM_m" == "1" {
global SGLM_lf "ln(u)"
}
}

```

```

        else global SGLM_lf "ln(u/$SGLM_m)"
        exit
    }
    - if `todo' == 0 {
= if 3 == 0 {
    gen double `eta' = ln(`mu'/$SGLM_m)
    exit
    }
    - if `todo' == 1 {
= if 3 == 1 {
    gen double `mu' = $SGLM_m*exp(`eta')
    exit
    }
    - if `todo' == 2 {
= if 3 == 2 {
    gen double `return' = `mu'
    exit
    }
    - if `todo' == 3 {
= if 3 == 3 {
    - gen double `return' = `mu'
= gen double __000016 = __00000Y
    - exit
}

> _____ end glim_
> l03 _____
    - tempvar t2 t3
    - qui gen double `t2' = `t1'/'v'*`dv' if $ML_samp
= qui gen double __000017 = __000014/__000010*__000015 if __0000
> 0D
    - qui gen double `t3' = `d2mu'/'v' if $ML_samp
= qui gen double __000018 = __000016/__000010 if __00000D
    - mllmatsum `lnf' `H' = (`t1'-(`mu'-$ML_y1)*(`t2'-`t3'))/'phi'
= mllmatsum __00000S __00000U = (__000014-(__00000Y-piq_timing_ma
> x)*(__000017-__000018))/__000011
    _____
> _____ end glim
> _lf _____
    _____
> _____ begin mopt_p
> ost _____
    - args b V C wgt touse depvar
    - if `:length local touse' {
= if 8 {
    - tempname esamp
    - quietly gen byte `esamp' = `touse'

```

```

        = quietly gen byte __000010 = __00000D
        - }
        - ereturn post `b' `V' `C' `wgt', esample(`esamp') depname(`depv
> ar') buildfvinfo
        = ereturn post __00000X __00000Y __00000Z [], esample(__000010)
> depname(piq_timing_max) buildfvinfo


---


> _____ end mopt_p
> ost _____
        - ereturn scalar k_eq_model = abs($ML_waldtest)
        = ereturn scalar k_eq_model = abs(-1)
        - if `:length global ML_ll_0' {
        = if 0 {
            ereturn scalar ll_0 = $ML_ll_0
            if `:length global ML_rank0' {
                ereturn scalar rank0 = $ML_rank0
                ereturn scalar df_m = e(rank) - $ML_rank0
            }
            else ereturn scalar df_m = e(rank) - $ML_k0
        }
        - if !`:length global ML_ll_0' | inlist(e(vce), "robust", "cluster
> ", "linearized") {
        = if !0 | inlist(e(vce), "robust", "cluster", "linearized") {
        - if "$ML_svy" == "" {
        = if "" == "" {
        - _prefix_model_test, minimum


---


> _____ begin _prefix_model_t
> est _____
        - version 9
        - syntax [name(name=cmd)] [, svy noADJust noSVYadjust MINimum ]
        - if (inlist("`cmd'", "asmixlogit", "cmmixlogit", "cmxtmixlogit"))
> {
        = if (inlist("", "asmixlogit", "cmmixlogit", "cmxtmixlogit")) {
            _asmixtest, `svy' `adjust' `svyadjust'
            exit
        }
        - local K = 1
        - if "`e(k_eq_model)'" != "" {
        = if "1" != "" {
            - capture confirm integer number `e(k_eq_model)'
            = capture confirm integer number 1
            - if ! c(rc) {
            - local K = e(k_eq_model)
            - }
            - }

```



```

- if "`e(k_eq_model_skip)'" != "" {
= if "" != "" {
  capture confirm integer number `e(k_eq_model_skip)'
  if ! c(rc) {
    local skip = e(k_eq_model_skip)
  }
}
- ereturn local df_m
- ereturn local F
- ereturn local chi2
- ereturn local chi2type
- ereturn local p
- if (`K' == 0) {
= if (1 == 0) {
  exit
}
- forval i = 1/`K' {
= forval i = 1/1 {
- if !':list i in skip' {
= if !0 {
- local spec "`spec' ([#`i'])"
= local spec " ([#1])"
- }
- }
- tempname cns omit
- capture matrix `cns' = get(Cns)
= capture matrix __000010 = get(Cns)
- if (c(rc)) local cns
- if "`cns'" != "" {
= if "__000010" != "" {
- local k_autoCns = e(k_autoCns)
- if missing(`k_autoCns') {
= if missing(6) {
  local k_autoCns 0
}
- if rowsof(`cns') == `k_autoCns' {
= if rowsof(__000010) == 6 {
- local cns
- }
- }
- if "`svy'" != "" & "`adjust'`svyadjust'" != "" {
= if "" != "" & "" != "" {
  local adjust nosvyadjust
}
- else local adjust
- _ms_omit_info e(b), nocons

```

```

- matrix `omit' = r(omit)
= matrix __000011 = r(omit)
- capture test `spec', `adjust'
= capture test ([#1]),

> _____ begin t
> est _____
- if "`e(cmd)'" == "anova" | "`e(cmd)'" == "manova" {
= if "mopt" == "anova" | "mopt" == "manova" {
  AnovaTestChooser `0'
  return add
  exit
}
- if "`e(cmd)'" == "mixed" {
= if "mopt" == "mixed" {
  MixedTestChooser `0'
  return add
  exit
}
- if _caller() < 8 {
  _test `0'
  return add
  exit
}
- is_svy

> _____ begin is_
> svy _____
- version 8
- syntax [, Regression]
- if ``"e(prefix)"" == "svy" {
= if `""' == "svy" {
  return scalar is_svy = 1
}
- else if "`regression'" == "" {
= else if "" == "" {
- return scalar is_svy = ("`e(N_psu)'" != "")
= return scalar is_svy = (" != ")
- }
- else {
  capt mat list e(b)
  local rc = _rc
  return scalar is_svy = ("`e(N_psu)'" != "") & (`rc' == 0)
}

> _____ end is_

```

```

> svy
- local is_svy = r(is_svy)
- if replay() & `is_svy' == 0 {
= if replay() & 0 == 0 {
    _test `0'
    return add
    exit
  }
- version 8
- WaldTest `is_svy' `0'
= WaldTest 0 ([#1]),

>
> est
- gettoken is_svy 0 : 0
- if "`is_svy'" == "1" {
= if "0" == "1" {
    if "`e(complete)'" == "available" {
      di as err `"must run svy command with "complete" "' "optio
> n before using this command"
      exit 301
    }
  }
- gettoken tok : 0, parse(" (,") bind
- local single single
- local zero ``0'
= local zero `` ([#1]), "'
- if ``tok' == "(" {
= if ``('' == "(" {
  - local single
  - while ``tok' == "(" {
= while ``('' == "(" {
  - gettoken tok 0 : 0, parse(" (,") match(paren) bind
  - local eqns ``eqns' ``tok'
= local eqns `` [#1]'
  - gettoken tok : 0, parse(" (,") bind
  - }
  - while ``tok' == "(" {
= while ``,' == "(" {
    gettoken tok 0 : 0, parse(" (,") match(paren) bind
    local eqns ``eqns' ``tok'
    gettoken tok : 0, parse(" (,") bind
  }
- if ``tok' != "," & ``tok' != "" {
= if ``,' != "," & ``,' != "" {
  local single single

```

```

    }
  - }
  - if "`single'"=="single" {
= if ""=="single" {
    local eqns
    local 0 ``zero'''
    while ``tok''' != "" & ``tok''' != "," {
      gettoken tok 0 : 0, parse(" ,") bind
      local eqns ``eqns' `tok'''
      gettoken tok : 0, parse(" ,") bind
    }
    local eqns ``eqns'eqns'''''
  }
  - syntax [, Accumulate noSVYadjust common CONSTant MINimum M
> test Mtest2(passthru) noTest COEF matvlg(passthru) DF(numlist max=1 >0) ]
  - if "`df'" != "" {
= if "" != "" {
    local dof = `df'
  }
  - else if "`e(df_r)'" != "" {
= else if "" != "" {
    local dof = e(df_r)
  }
  - else {
  - local dof = .
  - }
  - if ``mtest'`mtest2''' != "" {
= if `''' != "" {
    if inlist("`e(cmd)'", "svymean", "svytotal", "svyratio") {
      di as err ``mtest option not allowed after `e(cmd)'''
      exit 301
    }
    _mtest syntax, `mtest' `mtest2'
    local mtmethod `r(method)'
  }
  - if "`mtmethod'" != "" {
= if "" != "" {
    if "`test'" != "" {
      di as err "options mtest and notest may not be combined"
      exit 198
    }
    if "`accumulate'" != "" {
      di as err "options mtest and accumulate may not be combine
> d"

      exit 198
    }
  }

```

```

    }
- if `is_svy' {
= if 0 {
    if ``e(cmd)''' == "margins" {
        local vce ``e(model_vce)'''
    }
    else local vce ``e(vce)'''
    if inlist(```vce''' , "bootstrap", "sdr") {
        if missing(`dof') {
            local svyadjust nosvyadjust
        }
    }
}
- if !`is_svy' & ``svyadjust' != "" {
= if !0 & "" != "" {
    di as err "option nosvyadjust is allowed only with svy dat
> a"

    exit 198
}
- local svy_adjust = `is_svy' & ``svyadjust' == ""
= local svy_adjust = 0 & "" == ""
- if `svy_adjust' & missing(`dof') & (missing(e(N_psu)) | mi
> ssing(e(N_strata))) {
= if 0 & missing(.) & (missing(e(N_psu)) | missing(e(N_strat
> a))) {

    di as err "impossible to adjust p-values"
    exit 198
}
- if `is_svy' & ``test''' == "" {
= if 0 & `''' == "" {
    if ``svyadjust' == "" {
        di _n as txt "Adjusted Wald test"
    }
    else di _n as txt "Unadjusted Wald test"
}
- local tmp : subinstr local eqns "==" "", all count(local
> nch)

- if `nch' > 0 {
= if 0 > 0 {
    di as err "==" invalid operator"
    exit 198
}
- local eqns : subinstr local eqns "==" "=", all
- ExpandExpns ``eqns''' ``common' ``constant'
= ExpandExpns ``#[#1]''' "" ""

```

```

> _____ begin test.ExpandEx
> pns _____
    - args expns common constant
    - gettoken exp expns : expns
    - while ``exp'' != "" {
= while ``[#1]'' != "" {
    - Expand ``exp'' ``common'' ``constant''
= Expand ``[#1]'' "" ""
    _____

> _____ begin test.Exp
> and _____
    - args exp common constant
    - local junk : substr local exp "=" "=", count(local n

> ch) all
    - if `nch' <= 1 {
= if 0 <= 1 {
    - return local explist ``exp''
= return local explist ``[#1]''
    - return local nexp 1
    - exit
    _____

> _____ end test.Exp
> and _____
    - local explist ``explist' `r(explist)''
= local explist ``[#1]''
    - local nexp = `nexp' + `r(nexp)'
= local nexp = + 1
    - gettoken exp expns : expns
    - }
    - while ``exp'' != "" {
= while ``'' != "" {
    Expand ``exp'' ``common'' ``constant''
    local explist ``explist' `r(explist)''
    local nexp = `nexp' + `r(nexp)'
    gettoken exp expns : expns
    }
    - return local explist ``explist''
= return local explist ``[#1]''
    - return local nexp `nexp'
= return local nexp 1
    _____

> _____ end test.ExpandEx
> pns _____
    - local explist ``r(explist)''
= local explist ``[#1]''
    - local nexp `r(nexp)'

```

```

= local nexp 1
- local acc `accumulate'
= local acc
- foreach exp of local explist {
- quietly _test `exp' , `acc' `common' `constant' notest
= quietly _test [#1] , notest
- local acc acc
- }
- if "`test'" == "notest" {
= if "" == "notest" {
    _test , notest
    exit
    }
- quietly _test , `matvlc'
= quietly _test ,
- if `dof' < . {
= if . < . {
    local testtype F
    tempname F df1 df2 p drop
    if "`r(F)'" != "" {
        scalar `F' = r(F)
    }
    else {
        scalar `F' = r(chi2)/r(df)
    }
    scalar `df1' = r(df)
    scalar `df2' = `dof'
    scalar `p' = Ftail(`df1', `df2', `F')
    scalar `drop' = r(drop)
    }
- else {
- local testtype chi2
- tempname chi2 df1 p drop
- scalar `chi2' = r(chi2)
= scalar __000012 = r(chi2)
- scalar `df1' = r(df)
= scalar __000013 = r(df)
- scalar `p' = r(p)
= scalar __000014 = r(p)
- scalar `drop' = r(drop)
= scalar __000015 = r(drop)
- }
- local i 1
- while "`r(dropped_`i')'" != "" {
= while "4" != "" {
- local dropped_`i' `r(dropped_`i')'

```

```

= local dropped_1 4
- local ++i
- }
- while "`r(dropped_`i')'" != "" {
= while "5" != "" {
- local dropped_`i' `r(dropped_`i')'
= local dropped_2 5
- local ++i
- }
- while "`r(dropped_`i')'" != "" {
= while "8" != "" {
- local dropped_`i' `r(dropped_`i')'
= local dropped_3 8
- local ++i
- }
- while "`r(dropped_`i')'" != "" {
= while "9" != "" {
- local dropped_`i' `r(dropped_`i')'
= local dropped_4 9
- local ++i
- }
- while "`r(dropped_`i')'" != "" {
= while "10" != "" {
- local dropped_`i' `r(dropped_`i')'
= local dropped_5 10
- local ++i
- }
- while "`r(dropped_`i')'" != "" {
= while "11" != "" {
- local dropped_`i' `r(dropped_`i')'
= local dropped_6 11
- local ++i
- }
- while "`r(dropped_`i')'" != "" {
= while "" != "" {
  local dropped_`i' `r(dropped_`i')'
  local ++i
}
- if `svy_adjust' {
= if 0 {
  if "`df'" != "" {
    local svy_d = `df'
  }
  else if !missing(e(df_r)) {
    local svy_d = e(df_r)
  }
}

```



```

else local svy_d = e(N_psu)-e(N_strata)
if missing(`svy_d') {
di as err "internal error in adjustment for svy"
exit 10001
}
if "`testtype'" == "F" {
scalar `F' = ((`svy_d'-`df1'+1)/`svy_d') * `F'
}
else {
tempname F df2
scalar `F' = ((`svy_d'-`df1'+1)/(`svy_d'*`df1')) * `chi2'
}
scalar `df2' = `svy_d' - `df1' + 1
if `df2' < 0 {
scalar `F' = .
}
scalar `p' = Ftail(`df1', `df2', `F')
local testtype F
}
- if "`mtmethod'" != "" {
= if "" != "" {
tempname R r Rr V b VR tm Wald
mat `V' = e(V)
mat `b' = e(b)
mat `Rr' = get(Rr)
local nb = rowsof(`V')
local nr = rowsof(`Rr')
mat `R' = `Rr'[1...,1..`nb']
mat `VR' = `R'*`V'*`R''
mat `r' = `R'*`b'' - `Rr'[1...,`= `nb'+1']
mat `Wald' = `r'*syminv(`VR')*`r'
mat `tm' = J(`nr', 3, .)
mat colnames `tm' = `testtype' df p
forvalues it = 1 / `nr' {
mat `Wald' = `r'[`it',1]^2 / `VR'[`it',`it']
mat `tm'[`it',1] = `Wald'[1,1]
mat `tm'[`it',2] = 1
if `svy_adjust' {
mat `tm'[`it',3] = Ftail(1,`svy_d',`tm'[`it',1])
}
else if "`testtype'" == "chi2" {
mat `tm'[`it',3] = chi2tail(1,`tm'[`it',1])
}
else {
mat `tm'[`it',3] = Ftail(1,`df2',`tm'[`it',1])
}
}

```

```

}
if "`mtmethod'" != "noadjust" {
  _mtest adjust `tm', mtest(`mtmethod') pindex(3) append
  mat `tm' = r(result)
  local pindex 4
}
else local pindex 3
}
- _test, notest
- local i 1
- while "`dropped_`i'" != "" {
= while "4" != "" {
- di as txt "      Constraint `dropped_`i' dropped"
= di as txt "      Constraint 4 dropped"
- local ++i
- }
- while "`dropped_`i'" != "" {
= while "5" != "" {
- di as txt "      Constraint `dropped_`i' dropped"
= di as txt "      Constraint 5 dropped"
- local ++i
- }
- while "`dropped_`i'" != "" {
= while "8" != "" {
- di as txt "      Constraint `dropped_`i' dropped"
= di as txt "      Constraint 8 dropped"
- local ++i
- }
- while "`dropped_`i'" != "" {
= while "9" != "" {
- di as txt "      Constraint `dropped_`i' dropped"
= di as txt "      Constraint 9 dropped"
- local ++i
- }
- while "`dropped_`i'" != "" {
= while "10" != "" {
- di as txt "      Constraint `dropped_`i' dropped"
= di as txt "      Constraint 10 dropped"
- local ++i
- }
- while "`dropped_`i'" != "" {
= while "11" != "" {
- di as txt "      Constraint `dropped_`i' dropped"
= di as txt "      Constraint 11 dropped"
- local ++i
- }

```

```

- while "`dropped_`i'" != "" {
= while "" != "" {
    di as txt "          Constraint `dropped_`i' dropped"
    local ++i
  }
- if "`mtmethod'" == "" {
= if "" == "" {
- di
- if "`testtype'" == "chi2" {
= if "chi2" == "chi2" {
- di as txt _col(12) "chi2(" %3.0f `df1' ") =" as res %8.2f
> `chi2'
= di as txt _col(12) "chi2(" %3.0f __000013 ") =" as res %8.
> 2f __000012
- di as txt _col(10) "Prob > chi2 = " as res %8.4f `p'
= di as txt _col(10) "Prob > chi2 = " as res %8.4f __000014
- }
- else {
    di as txt "          F(" %3.0f `df1' "," %6.0f `df2' ") =" as
> res %8.2f `F'
    di as txt _col(13) "Prob > F =" as res %10.4f `p'
  }
- }
- else {
    local nexp = rowsof(`tm')
    local nc = colsof(`tm')
    if "`testtype'" == "F" {
      local d "F(df,`=df2'')"
      local dip "p > F"
    }
    else {
      local d chi2
      local dip "p > chi2"
    }
    di
    di as txt "{hline 7}{c TT}{hline 30}"
    di as txt "          {c |}{ralign 12:`d'}          df{ralign 11:`d
> ip'}"
    di as txt "{hline 7}{c +}{hline 30}"
    forvalues it = 1 / `nexp' {
      di as txt "    (`it') {c |}" as res _col(12) %9.2f `tm'[`it
> ',1] _col(22) %6.0f `tm'[`it',2] _col(33) %6.4f `tm'[`it',`pindex'] as txt "
> *"
  }
  di as txt "{hline 7}{c +}{hline 30}"
  di as txt "    All {c |}" as res _col(12) %9.2f ``testtype'

```

```

> ' _col(22) %6.0f `df1' _col(33) %6.4f `p'
    di as txt "{hline 7}{c BT}{hline 30}"
    _mtest footer 1 "`mtmethod'" "*" "
    }
- if "`coef'" != "" {
= if "" != "" {
    Table
    }
- return scalar p = `p'
= return scalar p = __000014
- return scalar df = `df1'
= return scalar df = __000013
- if "`testtype'" == "F" {
= if "chi2" == "F" {
    return scalar F = `F'
    return scalar df_r = `df2'
    }
- else return scalar chi2 = `chi2'
= else return scalar chi2 = __000012
- return scalar drop = `drop'
= return scalar drop = __000015
- local i 1
- while "`dropped_`i'" != "" {
= while "4" != "" {
- return scalar dropped_`i' = `dropped_`i''
= return scalar dropped_1 = 4
- local ++i
- }
- while "`dropped_`i'" != "" {
= while "5" != "" {
- return scalar dropped_`i' = `dropped_`i''
= return scalar dropped_2 = 5
- local ++i
- }
- while "`dropped_`i'" != "" {
= while "8" != "" {
- return scalar dropped_`i' = `dropped_`i''
= return scalar dropped_3 = 8
- local ++i
- }
- while "`dropped_`i'" != "" {
= while "9" != "" {
- return scalar dropped_`i' = `dropped_`i''
= return scalar dropped_4 = 9
- local ++i
- }

```

```

- while "`dropped_`i'" != "" {
= while "10" != "" {
- return scalar dropped_`i' = `dropped_`i''
= return scalar dropped_5 = 10
- local ++i
- }
- while "`dropped_`i'" != "" {
= while "11" != "" {
- return scalar dropped_`i' = `dropped_`i''
= return scalar dropped_6 = 11
- local ++i
- }
- while "`dropped_`i'" != "" {
= while "" != "" {
return scalar dropped_`i' = `dropped_`i''
local ++i
}
- if "`mtmethod'" != "" {
= if "" != "" {
return matrix mtest `tm'
return local mtmethod `mtmethod'
}
}

> _____ end test.WaldT
> est _____
- return add
_____

> _____ end t
> est _____
- if !c(rc) {
- if `:length local minimum' {
= if 7 {
- quietly test, min
_____

> _____ begin t
> est _____
- if "`e(cmd)'" == "anova" | "`e(cmd)'" == "manova" {
= if "mopt" == "anova" | "mopt" == "manova" {
AnovaTestChooser `0'
return add
exit
}
- if "`e(cmd)'" == "mixed" {
= if "mopt" == "mixed" {
MixedTestChooser `0'
return add
}
}

```

```

        exit
    }
- if _caller() < 8 {
    _test `0'
    return add
    exit
}
- is_svy
}

> ----- begin is_
> svy -----
    - version 8
    - syntax [, Regression]
    - if ``e(prefix)'' == "svy" {
= if `""' == "svy" {
        return scalar is_svy = 1
    }
    - else if ``regression'' == "" {
= else if "" == "" {
        - return scalar is_svy = ("`e(N_psu)'' != "")
= return scalar is_svy = (" " != "")
        - }
    - else {
        capt mat list e(b)
        local rc = _rc
        return scalar is_svy = ("`e(N_psu)'' != "") & (`rc' == 0)
    }
}

> ----- end is_
> svy -----
    - local is_svy = r(is_svy)
    - if replay() & `is_svy' == 0 {
= if replay() & 0 == 0 {
        - _test `0'
= _test , min
        - return add
        - exit
    }

> ----- end t
> est -----
    - }
    - ereturn scalar df_m = r(df)
    - local drop = r(drop)
    - if `drop' {
= if 1 {
        - local drop 0
    }
}

```

```

- local i 1
- local idrop ``r(dropped_`i')'''
= local idrop ``4''
- while ``idrop' != "" {
= while "4" != "" {
- if !`omit'[1,`idrop'] {
= if !__000011[1,4] {
    local ++drop
  }
- local ++i
- local idrop ``r(dropped_`i')'''
= local idrop ``5''
- }
- while ``idrop' != "" {
= while "5" != "" {
- if !`omit'[1,`idrop'] {
= if !__000011[1,5] {
    local ++drop
  }
- local ++i
- local idrop ``r(dropped_`i')'''
= local idrop ``8''
- }
- while ``idrop' != "" {
= while "8" != "" {
- if !`omit'[1,`idrop'] {
= if !__000011[1,8] {
    local ++drop
  }
- local ++i
- local idrop ``r(dropped_`i')'''
= local idrop ``9''
- }
- while ``idrop' != "" {
= while "9" != "" {
- if !`omit'[1,`idrop'] {
= if !__000011[1,9] {
    local ++drop
  }
- local ++i
- local idrop ``r(dropped_`i')'''
= local idrop ``10''
- }
- while ``idrop' != "" {
= while "10" != "" {
- if !`omit'[1,`idrop'] {

```

```

= if !__000011[1,10] {
  local ++drop
}
- local ++i
- local idrop ``r(dropped_`i')'''
= local idrop ``11'''
- }
- while ``idrop''' != "" {
= while "11" != "" {
- if !`omit'[1,`idrop'] {
= if !__000011[1,11] {
  local ++drop
}
- local ++i
- local idrop ``r(dropped_`i')'''
= local idrop `''''
- }
- while ``idrop''' != "" {
= while "" != "" {
  if !`omit'[1,`idrop'] {
    local ++drop
  }
  local ++i
  local idrop ``r(dropped_`i')'''
}
- }
- if `drop' == 0 | ``cns''' != "" {
= if 0 == 0 | "" != "" {
- if !missing(e(df_r)) {
  ereturn scalar F = r(F)
}
- else {
- ereturn scalar chi2 = r(chi2)
- ereturn local chi2type Wald
- }
- ereturn scalar p = r(p)
- }
- else {
  if !missing(e(df_r)) {
    ereturn scalar F = .
  }
  else {
    ereturn scalar chi2 = .
    ereturn local chi2type Wald
  }
  ereturn scalar p = .
}

```



```

    }
  - }
  - else {
    if missing(e(df_r)) {
      ereturn local chi2type Wald
    }
    ereturn scalar df_m = 0
  }
}

> ----- end _prefix_model_t
> est -----
  - }
  - else {
    _prefix_model_test, $ML_svy $ML_noadj
  }
  - }
  - else if `:length global ML_ll_0' {
= else if 0 {
    if ``"maxmin" == "minimize" {
      ereturn scalar chi2 = -2*(e(ll)-e(ll_0))
    }
    else {
      ereturn scalar chi2 = 2*(e(ll)-e(ll_0))
    }
    ereturn scalar p = chi2tail(e(df_m), e(chi2))
    ereturn local chi2type "LR"
  }
  - if `:length global ML_wexp' {
= if 0 {
    ereturn local wtype ``$ML_wtyp"
    ereturn local wexp ``$ML_wexp"
  }
  - if `:length global ML_group' {
= if 0 {
    ereturn local group ``$ML_group"
    if ``"e(clustvar)" == "$ML_grp" & "$ML_grp" != "" {
      ereturn local clustvar ``$ML_group"
    }
  }
  - ereturn local cmd "ml"
  - if `:length local score' {
= if 0 {
    mata: Mopt_score(0)
    ereturn local scorevars `scores'
  }
  - if "$ML_preserve" != "no" {

```

```

= if "no" != "no" {
  restore
  if "`e(prefix)'" == "svy" & e(N_strata_omit) {
    tempname v
    quietly _svy2 $ML_sample if $ML_sample, type(total) svy v(`v') s
> ubpop(`e(subpop)') touse($ML_sample)
  }
  ereturn repost, esample($ML_sample)
}
- if ``moptobj'"" != "" {
= if `""' != "" {
  local clear noclear
}
- if !`:length local clear' {
= if !0 {
- Clear
}

> _____ begin mopt.Cl
> ear _____
  - syntax [, NOTANOPTION]
  - capture drop $ML_w
  = capture drop __00000D
  - capture drop $ML_samp
  = capture drop __00000D
  - capture drop $ML_sample
  = capture drop __00000D
  - capture drop $ML_subv
  = capture drop
  - capture drop $ML_grp
  = capture drop
  - mata: Mopt_drop_external()
  - macro drop ML_*

> _____ end mopt.Cl
> ear _____
  - }
  - else {
    capture confirm var $ML_sample
    if c(rc) {
      quietly gen byte $ML_sample = e(sample)
    }
  }
  - if `':length local output' == 0 {
= if 8 == 0 {
  Display, level(`level') `options'
}

```

```

> _____ end mopt.Max
> Min _____
    - }
    _____

> _____ end mopt.Mo
> del _____
    - if c(rc) {
      local rc = c(rc)
      Clear
      exit `rc'
    }
    - exit
    _____

> _____ end m
> opt _____
    - exit
    _____

> _____ end
> ml _____
    - local rc = cond(e(rc) == 430 & `reg', 0, e(rc))
    = local rc = cond(e(rc) == 430 & 0, 0, e(rc))
    - local vcetype `e(vcetype)'
    = local vcetype Robust
    - if $SGLM_estscale {
    = if 0 {
      global SGLM_ph _b[`sigma2']
    }
    - if "`vce'" == "eim" {
    = if "robust" == "eim" {
      nobreak {
        tempname esave
        version 9: estimates store `esave'
        capture noisily break {
          capture drop `eta'
          capture drop `mu'
          capture drop `v'
          capture drop `dmu'
          capture drop `W'
          capture drop `z'
          quietly predict double `eta', xb
          $SGLM_L 1 `eta' `mu'
          $SGLM_V 1 `eta' `mu' `v'
          $SGLM_L 2 `eta' `mu' `dmu'
          gen double `W' = `dmu'*`dmu'/'`v' if `touse'
          tempname V

```

```

version 11: quietly matrix accum `V' = `xvars' [iw=`W'*`wt'], `constant'
matrix `V' = inv(`V')
}
local rc = c(rc)
quietly version 9: estimates restore `esave'
version 9: ereturn local _estimates_name
}
if `rc' {
version 9: ereturn clear
exit `rc'
}
local vcetype "EIM"
estimates repost V = `V'
}
- if `fixme' {
= if 0 {
tempname V fix
mat `V' = e(V)
if `scale' { scalar `fix' = `scale' }
else scalar `fix' = $SGLM_ph
mat `V' = `fix'*`V'
estimates repost V = `V'
}
- if "`vcetype'" == "OPG" | "`opg'" == "opg" {
= if "Robust" == "OPG" | "" == "opg" {
local vce "opg"
}
- else if "`vcetype'" == "" | "`vce'" == "oim" {
= else if "Robust" == "" | "robust" == "oim" {
local vce oim
local vcetype "OIM"
}
- if "`unbiased'" != "" {
= if "" != "" {
tempvar hat eta mu v dmu dv d2mu z W
tempname ll
qui _predict double `eta', xb
qui $SGLM_L 1 `eta' `mu'
qui $SGLM_V 1 `eta' `mu' `v'
qui $SGLM_L 2 `eta' `mu' `dmu'
qui gen double `z' = `eta' + (`y'-`mu')/`dmu' `moffset' if `touse'
qui $SGLM_V 2 `eta' `mu' `dv'
qui $SGLM_L 3 `eta' `mu' `d2mu'
qui gen double `W' = `dmu'*`dmu'/`v' - (`mu'-`y')*(`dmu'*`dmu'*`dv'/(`v'
> *`v') - `d2mu'/`v') if `touse'
nbreak {

```

```

estimates hold `ll'
`VV' qui _regress `z' `xvars' [iw=`W'*`wt'], mse1 `constant'
qui _predict double `hat' if `touse', stdp `offset'
qui replace `hat' = `hat'*`hat'*`v'
estimates unhold `ll'
}
qui replace `scvar' = `scvar' / sqrt(1-`hat')
qui _robust2 `scvar' [fweight=`fw''] if `touse', `cll' minus(0)
local setype "Unbiased `setype'"
local setype "Unbiased Sandwich"
local vce "unbiased"
local vcetype "Unbiased"
}
- if "`opg'" != "" {
= if "" != "" {
tempname V1
mat `V1' = e(V)
local nms : colnames `V1'
local ncol = colsof(`V1')
mat `V1' = I(`ncol')
version 11: mat colnames `V1' = `nms'
version 11: mat rownames `V1' = `nms'
_robust2 `scvar' [fweight=`fw''] if `touse', var(`V1')
mat `V1' = syminv(`V1')
estimates repost V = `V1'
local vcetype "OPG"
}
- if "`hacnam'" != "" {
= if "" != "" {
tempname V
mat `V' = e(V)
local p = colsof(`V')-1
capture drop `eta'
capture drop `mu'
capture drop `v'
capture drop `dmu'
capture drop `z'
qui _predict `eta', xb
qui $SGLM_L 1 `eta' `mu'
qui $SGLM_V 1 `eta' `mu' `v'
qui $SGLM_L 2 `eta' `mu' `dmu'
qui gen double `z' = `dmu'*(`y'-`mu')/`v'
sort `touse' `tvar'
qui HAC "`hacnam'" "`haclag'" "`wt'" "`z'" "`touse'" "`constant'" "`x
> vars'" "`intlag'"
tempname vm

```

```

mat `vm' = r(V)
local pm1 = `p'+1
`hacnam' `haclag' 0 `nobs' `pm1'
local delta = 1
if `scale1' == 0 {
local delta = $SGLM_ph
}
tempname ss
scalar `ss' = 1/(`delta'*`delta')
mat `V' = `ss'*`V'*`vm'*`V'
local hac_kern "`r(settype)'"
local vce "hac"
local vcetype "HAC"
estimates repost V = `V'
}
- if "`jkknife1'" != "" {
= if "" != "" {
tempname b V
mat `b' = e(b)
mat `V' = e(V)
qui JK1nr `b' `V' `y' "`xvars'" `eta' `mu' `v' `dmu' "`tvar'" `z' "`moff
> set'" "`constant'" `wt' `touse' "`weight'"
local p = colsof(`b')
tempname ss
scalar `ss' = (`nobs'-`p')/`nobs'
mat `V' = `ss'*`V'
local vce "jackknife1"
local vcetype "1-step JKnife"
estimates repost V = `V'
}
- if "`jkknife'" != "" {
= if "" != "" {
tempname b V
mat `b' = e(b)
mat `V' = e(V)
noi JKnife `b' `V' `y' "`xvars'" "`tvar'" "`offopt'" "`constant'" "`argf
> am'" "`arglink'" "[`weight'`exp']" `touse' "`cluster'" `dots' "`weight'"
> "`wt'"
local mm = `nobs'
if "`cluster'" != "" { local mm = $SGLM_nc }
else local mm = 1
local p = colsof(`b')
local nnn = `nobs'-$SGLM_bm
tempname ss
if "`cluster'" != "" {
scalar `ss' = (`nnn'-`p')/`nnn'

```

```

    }
    else {
        scalar `ss' = (`nnn' - `p') / `nnn'
    }
    mat `V' = `ss' * `V'
    local vcetype "Jackknife"
    estimates repost V = `V'
}
- if "`bstrap'" != "" {
= if "" != "" {
    tempname b V
    mat `b' = e(b)
    mat `V' = e(V)
    noi Bstrap `b' `V' `y' "`xvars'" "`offopt'" "`constant'" "`argfam'" "" "
> `arglink'" "['weight'`exp']" `touse' `brep' "`clopt'" `dots'
    local p = colsof(`b')
    tempname ss
    scalar `ss' = (`nobs' - `p') / (`nobs' * (`brep' - $SGLM_bm))
    mat `V' = `ss' * `V'
    local vcetype "Bootstrap"
    estimates repost V = `V'
}
- if `vfactor' != 1 {
= if 1 != 1 {
    tempname V
    mat `V' = `vfactor' * e(V)
    estimates repost V = `V'
}
- capture drop `eta'
= capture drop __000004
- capture drop `mu'
= capture drop __000005
- capture drop `v'
= capture drop __000007
- qui predict double `eta', xb
= qui predict double __000004, xb

> _____ begin pred
> ict _____
    - version 8.2, missing
    - if "`e(cmd)'" == "rocreg" & "`e(predict)'" == "" {
= if "ml" == "rocreg" & "ml_p" == "" {
    di as err "predict not allowed after nonparametric ROC"
    exit 198
}
    - if "`e(mi)'" != "" & "`e(b)'" != "matrix" {

```

```

= if ""!=" & "matrix"!="matrix" {
  error 321
}
- if _caller()<=5 | ``e(predict)''=="" {
= if _caller()<=5 | "ml_p"=="" {
  _predict `0'
}
- else {
- local v : display string(_caller())
- version `v', missing
= version 7, missing
- `e(predict)' `0'
= ml_p double __000004, xb
}

> _____ begin m
> l_p _____
- version 9
- local version : di "version " string(_caller()) ":"
- syntax [anything] [if] [in] [, SCores * ]
- if ``scores'' != "" {
= if `'' != "" {
  if ``e(opt)'' == "ml" {
    `version' ml score `0'
  }
  else {
    `version' mopt score `0'
  }
  exit
}
- `version' _predict `0'
= version 7: _predict double __000004, xb
}

> _____ end m
> l_p _____
- }

> _____ end pred
> ict _____
- qui $SGLM_L 1 `eta' `mu'
= qui glim_l03 1 __000004 __000005

> _____ begin glim_
> l03 _____
- version 7
- args todo eta mu return
- if `todo' == -1 {

```



```

= if 1 == -1 {
  global SGLM_lt "Log"
  if "$SGLM_m" == "1" {
    global SGLM_lf "ln(u)"
  }
  else global SGLM_lf "ln(u/$SGLM_m)"
  exit
}
- if `todo' == 0 {
= if 1 == 0 {
  gen double `eta' = ln(`mu'/$SGLM_m)
  exit
}
- if `todo' == 1 {
= if 1 == 1 {
  - gen double `mu' = $SGLM_m*exp(`eta')
= gen double __000005 = 1*exp(__000004)
- exit
}

> _____ end glim_
> l03 _____
  - qui $SGLM_mu `mu'
= qui glim_mu 0 . __000005
}

> _____ begin glim
> _mu _____
  - version 7
  - args min max mu
  - tempname eps
  - scalar `eps' = 1e-8
= scalar __00000D = 1e-8
  - replace `mu' = `min'+`eps' if `mu'<=`min'+`eps'
= replace __000005 = 0+__00000D if __000005<=0+__00000D
  - replace `mu' = `max'-`eps' if `mu'>=`max'-`eps'
= replace __000005 = .-__00000D if __000005>=.-__00000D
}

> _____ end glim
> _mu _____
  - qui $SGLM_V 1 `eta' `mu' `v'
= qui glim_v6 1 __000004 __000005 __000007
}

> _____ begin glim
> _v6 _____
  - version 7
  - args todo eta mu return
  - if `todo' == -1 {

```

```

= if 1 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"
    local touse "`eta'"
    capture assert `y'>=0 if `touse'
    if _rc {
        di as err `"dependent variable `y' has negative values"'
        exit 499
    }
    capture assert `y'==int(`y') if `touse'
    if _rc {
        di as txt `"note: `y' has noninteger values"'
    }
    global SGLM_vt "Neg. Binomial"
    local SGLM_a = round($SGLM_a,0.0001)
    global SGLM_vf "u+(`SGLM_a')u^2"
    global SGLM_mu "glim_mu 0 ."
    exit
}
- if `todo' == 0 {
= if 1 == 0 {
    gen double `eta' = -ln1p($SGLM_a/`mu')
    exit
}
- if `todo' == 1 {
= if 1 == 1 {
    - gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
    = gen double __000007 = __000005+__000005*__000005*1
    - exit
}
}

> _____ end glim
> _v6 _____
    - mat `b0' = e(b)
    = mat __00000B = e(b)
    - local dfm = e(df_m)
    - capture drop `z'
    = capture drop __000008
    - qui gen double `z' = sum(`wt'*(`y'-`mu')^2/`v')
    = qui gen double __000008 = sum(__000003*(piq_timing_max-__000005)^2/__000
> 007)
    - local chi2 = `z'[_N]
    = local chi2 = __000008[_N]
    - local df = e(N)-`dfm'
    = local df = e(N)-5
    - _post_vce_rank, checksize

```

```

> _____ begin _post_vce_r
> ank _____
  - syntax, [Checksize]
  - if "`checksize'" != "" {
= if "checksize" != "" {
  - tempname V
  - capture matrix `V' = e(V)
= capture matrix __00000D = e(V)
  - if _rc {
    exit
  }
  - local cols = colsof(`V')
= local cols = colsof(__00000D)
  - if `cols' == 0 {
= if 12 == 0 {
    exit
  }
  - }
  - tempname V Vi rank
  - mat `V' = e(V)
= mat __00000E = e(V)
  - mat `Vi' = invsym(`V')
= mat __00000F = invsym(__00000E)
  - sca `rank' = rowsof(`V') - diag0cnt(`Vi')
= sca __00000G = rowsof(__00000E) - diag0cnt(__00000F)
  - mata:st_numscalar("e(rank)", st_numscalar("`rank'"))
= mata:st_numscalar("e(rank)", st_numscalar("__00000G"))

> _____ end _post_vce_r
> ank _____
  - local rank = e(rank)
  - if $SGLM_s1 { global SGLM_ph = $SGLM_s1 }
= if 1 { global SGLM_ph = 1 }
  - capture drop `z'
= capture drop __000008
  - qui $SGLM_V 3 `eta' `mu' `z'
= qui glim_v6 3 __000004 __000005 __000008

> _____ begin glim
> _v6 _____
  - version 7
  - args todo eta mu return
  - if `todo' == -1 {
= if 3 == -1 {
    local y "$SGLM_y"
    local m "$SGLM_m"

```

```

local touse "`eta'"
capture assert `y'>=0 if `touse'
if _rc {
di as err `"dependent variable `y' has negative values"'
exit 499
}
capture assert `y'==int(`y') if `touse'
if _rc {
di as txt `"note: `y' has noninteger values"'
}
global SGLM_vt "Neg. Binomial"
local SGLM_a = round($SGLM_a,0.0001)
global SGLM_vf "u+(`SGLM_a')u^2"
global SGLM_mu "glim_mu 0 ."
exit
}
- if `todo' == 0 {
= if 3 == 0 {
gen double `eta' = -ln1p($SGLM_a/`mu')
exit
}
- if `todo' == 1 {
= if 3 == 1 {
gen double `return' = `mu'+`mu'*`mu'*$SGLM_a
exit
}
- if `todo' == 2 {
= if 3 == 2 {
gen double `return' = 1 + 2*`mu'*$SGLM_a
exit
}
- if `todo' == 3 {
= if 3 == 3 {
- local y "$SGLM_y"
= local y "piq_timing_max"
- if ""y"" == "" {
= if "piq_timing_max" == "" {
local y "`e(depvar)'"
}
- gen double `return' = cond(`y'==0, 2*ln1p(`mu'*$SGLM_a)/$SGLM_a, 2*(`y
> '*ln(`y'/`mu') - (1+`y'*$SGLM_a)/$SGLM_a * ln((1+`y'*$SGLM_a)/(1+`mu'*$SGLM_
> a))))
= gen double __000008 = cond(piq_timing_max==0, 2*ln1p(__000005*1)/1, 2*
> (piq_timing_max*ln(piq_timing_max/__000005) - (1+piq_timing_max*1)/1 * ln((1
> +piq_timing_max*1)/(1+__000005*1))))
- exit

```

```

> _____ end glim
> _v6 _____
- qui replace `z' = sum(`wt'*`z')
= qui replace __000008 = sum(__000003*__000008)
- scalar `newdev' = `z'[_N]
= scalar __00000C = __000008[_N]
- local disp = $SGLM_ph
= local disp = 1
- est scalar vf = `vfactor'
= est scalar vf = 1
- est scalar rc = `rc'
= est scalar rc = 0
- if "`oldIC'"!="" {
= if "oldic"!=" {
- est scalar aic = (-2*e(ll)+2*`rank')/`nobs'
= est scalar aic = (-2*e(ll)+2*6)/217
- }
- else est scalar aic = (-2*e(ll)+2*`rank')
= else est scalar aic = (-2*e(ll)+2*6)
- }
- else {
  if ```mlopts'"" != "" {
    local 0 `", `mlopts'""
    syntax [, NOOPTION ]
    error 198
  }
  quietly {
    tempvar eta mu dm u v W z
    tempname Wscale b0
    if "`offset'" != "" {
      local moffset = "-`offset'"
    }
    if ```init'""!="" {
      gen double `mu' = `init' if `touse'
    }
    else {
      summ `y' `wgt' if `touse', mean
      if "$SGLM_V" != "glim_v2" {
        gen double `mu' = (`y'+r(mean))/(`m'+1)
      }
      else {
        gen double `mu' = `m'*(`y'+.5)/(`m'+1)
      }
    }
    if `reg' { local iterate 1 }
  }
}

```

```

capture drop `eta'
$SGLM_L 0 `eta' `mu'
tempvar dev
tempname newdev oldev
scalar `oldev' = 0
scalar `newdev' = 1
local i 1
if `iterate' == 0 { local i 0 }
`iflog' di
while abs(`newdev' - `oldev') > `ltol' & `i' <= `iterate' {
capture drop `v'
capture drop `dmu'
capture drop `W'
capture drop `z'
scalar `oldev' = `newdev'
$SGLM_V 1 `eta' `mu' `v'
$SGLM_L 2 `eta' `mu' `dmu'
gen double `z' = `eta' + (`y' - `mu') / `dmu' `moffset' if `touse'
gen double `W' = `disp' * `dmu' * `dmu' / `v' if `touse'
summ `W' `wt', meanonly
scalar `Wscale' = r(mean)
`VV' cap noisily quietly _regress `z' `xvars' [iw=`W'*`wt'/`Wscale'], ms
> e1 `constant'
if e(N) >=. {exit 459}
if _rc {exit _rc}
capture drop `eta'
capture drop `mu'
capture drop `dev'
predict double `eta' if `touse', xb
if "`offset'" != "" {
replace `eta' = `eta' + `offset'
}
$SGLM_L 1 `eta' `mu'
$SGLM_mu `mu'
$SGLM_V 3 `eta' `mu' `dev'
replace `dev' = sum(`wt' * `dev')
scalar `newdev' = `dev'[_N] / `disp'
if `i' < 10 {
local space " "
}
else {
local space
}
`iflog' di as txt "Iteration `i':`space' " "Deviance = " as res %9.0g `n
> ewdev'
if "`trace'" != "" {

```

```

tempname beta
`iflog' mat list e(b), noblank noheader
`iflog' di as txt "{hline 78}"
`iflog' di
}
local ic = `i'
local i = `i'+1
}
if "`unbiased'`jknife1'`jknife'" != "" {
`VV' cap noisily quietly _regress `z' `xvars' [iw=`W'*`wt'], mse1 `const
> ant'
if e(N)>=. {exit 459}
if _rc {exit _rc}
tempvar h
qui _predict double `h' if `touse', stdp
qui replace `h' = `h'*`h'*`v'
local minus "minus(0)"
}
else local h = 0
local rc = cond(abs(`newdev'-`oldev')>`ltol' & !`reg',430,0)
replace `z' = sum(`wt'*(`y'-`mu')^2/`v')
local chi2 = `z'[_N]/`disp'
local p = e(df_m)
local df = `nobs'-`p'-(``constant'==``)
local dispc = `chi2'/`df'
local dispd = `newdev'/`df'
global SGLM_ph = `dispc'
if ``scale'==`` {
local scale `scale1'
if `scale1' { local delta 1 }
else local delta `dispc'
}
else if `scale'==0 {
local delta `dispc'
if `scale1' {
local cd "square root of Pearson"
local cd "`cd' X2-based dispersion"
}
}
else if `scale'==-1 {
local delta `dispd'
local cd "square root of deviance-based"
local cd "`cd' dispersion"
}
else {
local delta `scale'

```

```

if !`scale1' | (`scale1' & `scale'!=1) {
  local cd "dispersion equal to square"
  local cd "`cd' root of `delta'"
}
}
if !`scale1' | (`scale1' & `scale'!=1) {
  if `scale1' { local dof 100000 }
  else local dof `df'
  if `delta'>=. {
    local zapse "yes"
  }
  else {
    scalar `Wscale' = `Wscale' / `delta'
  }
}
tempname b V
mat `b' = e(b)
mat `V' = e(V)
local vce "eim"
local vcetype "EIM"
if "`robust'" oim'`hacnam'`opg'" != "" {
  capture drop `W'
  capture drop `z'
  capture drop `v'
  capture drop `dmu'
  tempvar xb
  _predict double `xb', xb
  $SGLM_V 1 `eta' `mu' `v'
  $SGLM_L 2 `eta' `mu' `dmu'
  tempvar ys yi
  gen double `ys' = `dmu' * (`mu' - `y') / `v'
  gen double `yi' = `dmu' * `dmu'
  if "`oim'" != "" {
    tempvar dv d2m
    $SGLM_V 2 `eta' `mu' `dv'
    $SGLM_L 3 `eta' `mu' `d2m'
    replace `yi' = `yi' + `d2m' * (`mu' - `y') - `dmu' * `dv' * `ys'
  }
  replace `yi' = `awt' * `yi' / `v'
  replace `ys' = `awt' * `ys' / sqrt(1 - `h')
  `VV' _regress `xb' `xvars' if `touse' [iweight=`fwt'*`yi'], `constant' m
}
> se1
mat `V' = e(V)
local vce "oim"
local vcetype "OIM"
if "`robust'" != "" {

```



```

tempname vmb
matrix `vmb' = e(V)
if "`oim'" != "" {
    local vce "robust"
    local vcetype "Robust"
}
else {
    local vce "robust"
    if (`canon'==0) {
        local vcetype "Semirobust"
    }
    else {
        local vcetype "Robust"
    }
}
_robust2 `ys' [fweight=`fwt'] if `touse', var(`V') `clopt' `minus'
if "`unbiased'" != "" {
    local setype "Unbiased Sandwich"
    local vce "unbiased"
    local vcetype "Unbiased"
}
if ```clopt'"" != "" {
    global SGLM_nc = r(N_clust)
}
}
else if "`opg'" != "" {
    local nms : colnames `V'
    local ncol = colsof(`V')
    mat `V' = I(`ncol')
    version 11: mat colnames `V' = `nms'
    version 11: mat rownames `V' = `nms'
    replace `ys' = `ys' / `disp'
    _robust2 `ys' [fweight=`fwt'] if `touse', var(`V')
    mat `V' = `delta' * `delta' * syminv(`V')
    local vce "opg"
    local vcetype "OPG"
}
else if "`hacnam'" == "" {
    tempname ss
    scalar `ss' = `delta' * `Wscale'
    mat `V' = `ss' * `V'
}
}
if "`hacnam'" != "" {
    capture drop `v'
    capture drop `dmu'
}

```

```

capture drop `z'
$SGLM_V 1 `eta' `mu' `v'
$SGLM_L 2 `eta' `mu' `dmu'
gen double `z' = `dmu'*(`y'-`mu')/`v'
sort `touse' `tvar'
qui HAC ``hacnam''' ``haclag''' ``wt''' ``z''' ``touse''' ``constant''' ``x
> vars''' ``intlag'''
tempname vm
mat `vm' = r(V)
local pm1 = `p'+1
`hacnam' `haclag' 0 `nobs' `pm1'
local hac_kern ``r(settype)'''
local vce "hac"
local vcetype "HAC"
local ddd = 1
tempname ss
scalar `ss' = 1/(`ddd'*`ddd')
mat `V' = `ss'*`V'*`vm'*`V'
}
if ``jkknife1''' != "" {
JK1irls `b' `V' `y' ``xvars''' `h' `eta' `mu' `v' `dmu' ``tvar''' `z' ``mo
> ffset''' ``constant''' `wt' `touse' ``weight'''
local p = colsof(`b')
tempname ss
scalar `ss' = (`nobs'-`p')/`nobs'
local vce "jackknife1"
local vcetype "1-step JKnife"
mat `V' = `ss'*`V'
}
if ``jkknife''' != "" {
noi JKnife `b' `V' `y' ``xvars''' ``tvar''' ``offopt''' ``constant''' ``argf
> am''' "irls" ``arglink''' "[`weight'`exp']" `touse' ``cluster''' `dots' ``weigh
> t''' ``wt'''
local mm = `nobs'
local vcetype "Jackknife"
if ``cluster''' != "" { local mm = $SGLM_nc }
else local mm=1
local p = colsof(`b')
local nnn = `nobs'-$SGLM_bm
tempname ss
scalar `ss' = (`nnn'-`p')/(`nnn'*`mm')
mat `V' = `ss'*`V'
}
if ``bstrap''' != "" {
tempname b V
mat `b' = e(b)

```

```

mat `V' = e(V)
noi Bstrap `b' `V' `y' "`xvars'" "`offopt'" "`constant'" "`argfam'" "irl
> s" "`arglink'" "['weight'`exp']" `touse' `brep' "`clopt'" `dots'
local vcetype "Bootstrap"
if "`cluster'" != "" { local mm = $SGLM_nc }
else local mm=1
local p = colsof(`b')
tempname ss
scalar `ss' = (`nobs'-`p')/(`nobs'*(`brep'-$SGLM_bm))
mat `V' = `ss'*`V'
}
if "`opg'`hacnam'`robust'`jknife'`jknife1'`bstrap'" == "" {
scalar `Wscale' = 1/`Wscale'
mat `V' = `Wscale'*`V'
}
if "`zapse'"=="yes" {
local i 1
while `i'<=rowsof(`V') {
mat `V'[`i',`i'] = 0
local i=`i'+1
}
}
if `vfactor' != 1 {
mat `V' = `vfactor'*`V'
}
tempvar mysamp
local k = colsof(`b')
qui gen byte `mysamp' = `touse'
est post `b' `V' ['weight'`exp'], depname(`y') obs(`nobs') `dofopt' esam
> ple(`mysamp') buildfvinfo
if `:length local vmb' {
est matrix V_modelbased `vmb'
}
est local depvar "`y'"
est local wtype "`weight'"
est local wexp "`exp'"
est local title "Generalized linear models"
est scalar rc = `rc'
est scalar disp = `disp'
est scalar k = `k'
est hidden scalar ic = `ic'
est hidden local crittype "deviance"
}
est hidden scalar noconstant = cond("`constant'" == "",0,1)
est hidden scalar cononly = cond("`xvars'"!="",0,1)
}

```

```

- mac drop SGLM_running SGLM_nonstan
- if "`score'" != "" {
= if "" != "" {
    label var `scvar' "Score index from glm"
    rename `scvar' `score'
    est local scorevars `score'
}
- _post_vce_rank

```

```

> _____ begin _post_vce_r
> ank _____
- syntax, [Checksize]
- if "`checksize'" != "" {
= if "" != "" {
    tempname V
    capture matrix `V' = e(V)
    if _rc {
        exit
    }
    local cols = colsof(`V')
    if `cols' == 0 {
        exit
    }
}
- tempname V Vi rank
- mat `V' = e(V)
= mat __00000D = e(V)
- mat `Vi' = invsym(`V')
= mat __00000E = invsym(__00000D)
- sca `rank' = rowsof(`V') - diag0cnt(`Vi')
= sca __00000F = rowsof(__00000D) - diag0cnt(__00000E)
- mata:st_numscalar("e(rank)", st_numscalar("`rank'"))
= mata:st_numscalar("e(rank)", st_numscalar("__00000F"))

```

```

> _____ end _post_vce_r
> ank _____
- local dfm = e(rank)- (`""`constant'""'==""')
= local dfm = e(rank)- (`""'==""')
- local df = `nobs'-e(rank)
= local df = 217-e(rank)
- est local link "$SGLM_L"
= est local link "glim_l03"
- est local varfunc "$SGLM_V"
= est local varfunc "glim_v6"
- est local m "$SGLM_m"
= est local m "1"

```

```

- if !inlist("$SGLM_m", "", "1") {
= if !inlist("1", "", "1") {
  est hidden local marginsprop atslow
}
- est hidden local a "$SGLM_a"
= est hidden local a "1"
- est hidden local msg "`cd'"
= est hidden local msg ""
- est hidden scalar canonical = `canon'
= est hidden scalar canonical = __000001
- est local cons "`constant'"
= est local cons ""
- est hidden local oim "`oim'"
= est hidden local oim "oim"
- est local clustvar "`cluster'"
= est local clustvar ""
- capture confirm number $SGLM_p
= capture confirm number 0
- if !_rc {
- est scalar power = $SGLM_p
= est scalar power = 0
- }
- else {
  version 15: ereturn hidden local power ``$SGLM_p'
}
- if "$SGLM_V" == "glim_v2" & "$SGLM_L" == "glim_l01" & "`eform'" == "" {
= if "glim_v6" == "glim_v2" & "glim_l03" == "glim_l01" & "" == "" {
  est hidden local msg2 "Coefficients are the risk differences"
}
- if "`irls'" != "" {
= if "" != "" {
  est local opt irls
  if "`oim'" == "" {
    est local opt1 "MQL Fisher scoring"
    est local opt2 "(IRLS EIM)"
  }
  else {
    est local opt1 "MQL Newton-Raphson"
    est local opt2 "(IRLS OIM)"
  }
}
- else {
- est local opt1 "ML"
- est local opt2
- if "`vce'" == "eim" & `disp' != 1 {
= if "robust" == "eim" & 1 != 1 {

```

```

matrix `V' = `disp'*e(V)
est repost V = `V'
}
- }
- if "$SGLM_bm" != "" {
= if "" != "" {
  if $SGLM_bm > 0 { est scalar Nf = $SGLM_bm }
}
- est scalar df_m = `dfm'
= est scalar df_m = 5
- est scalar df = `df'
= est scalar df = 211
- if "$SGLM_nc" != "" {
= if "" != "" {
  est scalar N_clust = $SGLM_nc
}
- if `brep' > 0 {
= if -1 > 0 {
  est scalar N_brep = `brep'
}
- est scalar vf = `vfactor'
= est scalar vf = 1
- est scalar phi = `disp'
= est scalar phi = 1
- est scalar deviance = abs(`newdev')
= est scalar deviance = abs(__00000C)
- est scalar dispers = e(deviance)/e(df)
- est scalar deviance_s = e(deviance)/e(phi)
- est scalar dispers_s = e(deviance_s)/e(df)
- est scalar deviance_p = abs(`chi2')
= est scalar deviance_p = abs(137.8705368758797)
- est scalar dispers_p = e(deviance_p)/e(df)
- est scalar deviance_ps = e(deviance_p)/e(phi)
- est scalar dispers_ps = e(deviance_ps)/e(df)
- capture drop `v'
= capture drop __000007
- qui gen double `v' = sum((`y'-`mu')^2) if `touse'
= qui gen double __000007 = sum((piq_timing_max-__000005)^2) if __000002
- if "`oldIC'" != "" | "`irls'" != "" {
= if "oldic" != "" | "" != "" {
  - est scalar bic = e(deviance) - `df'*log(`nobs')
= est scalar bic = e(deviance) - 211*log(217)
- }
- else est scalar bic = -2*e(ll)+log(`nobs')*`p'
= else est scalar bic = -2*e(ll)+log(217)*
- est local varfuncf "$SGLM_vf"

```

```

= est local varfuncf "u+(1)u^2"
- est local varfunct "$SGLM_vt"
= est local varfunct "Neg. Binomial"
- est local linkf "$SGLM_lf"
= est local linkf "ln(u)"
- est local linkt "$SGLM_lt"
= est local linkt "Log"
- if "`cluster'" != "" {
= if "" != "" {
    est local vce "cluster"
  }
- else {
- est local vce "`vce'"
= est local vce "robust"
- }
- est local vcetype "`vcetype'"
= est local vcetype "Robust"
- est local setype "`setype'"
= est local setype ""
- est local hac_kernel "`hac_kern'"
= est local hac_kernel ""
- est local hac_lag "`haclag'"
= est local hac_lag "215"
- est local offset "`offvar'"
= est local offset ""
- est local offset1
- est scalar k_eq_model = 0
- est local marginsok default
- est local marginsnotok stdp Anscombe Cooksd Deviance Hat Likelihood Pear
> son Response Score Working ADJusted STandardized STUdentized MODified
- est local predict "glim_p"
- est local cmd "glm"
- capture mac drop SGLM_bm SGLM_nc
- if "$SGLM_V" == "glim_v2" {
= if "glim_v6" == "glim_v2" {
    if "$SGLM_L" == "glim_l01" | "$SGLM_L" == "glim_l03" {
      CheckAdmiss
    }
  }
- est scalar nbml = "`$SGLM_ml'" == "ml"
= est scalar nbml = `""' == "ml"
- if "`display'" == "" {
= if "" == "" {
- Display, `eform' level(`level') `header' `table' `diopts'
= Display, level(95)

```

```

> _____ begin glm.Disp
> lay _____
  - if "`e(prefix)'" == "svy" {
  = if "" == "svy" {
    _prefix_display `0'
    exit
  }
  - di

  - syntax [, noHEADer noTABLE Level(cilevel) eform *]
  - _get_diopts diopts, `options'
  = _get_diopts diopts,
    _____

> _____ begin _get_dio
> pts _____
  - version 11
  - syntax namelist(max=2) [, *]
  - gettoken name1 namelist : namelist
  - gettoken name2 namelist : namelist
  - GetDiopts diopts options, `options'
  = GetDiopts diopts options,
    _____

> _____ begin _get_diopts.GetDio
> pts _____
  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels
> NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NO
> OMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sfor
> mat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(
> string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> ABBREV
  - syntax namelist(max=2) [, `DIOPTS' *]
  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels A
> LLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells
> EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat
> (string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passth
> ru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passth
> ru) NOABBREV ABBREV *]
  - opts_exclusive "`allbaselevels' `noallbaselevels'"
  = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts

```



```

- local n 0
- while ``opts'' != "" {
= while `'' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`allbaselevels' `nbaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`baselevels' `nbaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
  local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {

```

```

        - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____

```

```

- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus

```

```

> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive ``coding' `compare'
    = opts_exclusive " "

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive
    - opts_exclusive ``versus' `compare'
    = opts_exclusive " "

> ----- begin opts_exclus
> ive
    - version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch

```

```

- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
    local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
    local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `cformat(`cformat')'
  }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth("`sformat'") > 8 {
      local sformat "%8.2f"

```

```

di "{txt}note: invalid sformat(), using default"
}
sreturn local sformat ``sformat'''
local sformat `sformat(`sformat')''
}
- if `:length local pformat' {
= if 0 {
confirm numeric format `pformat'
if fmtwidth(`pformat') > 5 {
local pformat "%5.3f"
di "{txt}note: invalid pformat(), using default"
}
sreturn local pformat ``pformat'''
local pformat `pformat(`pformat')''
}
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
local levelopt level(`level')
}
- Wraon , `fvwraon'
= Wraon ,

```

> _____ begin _get_diopts.Wra

> pon _____

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
di as err "invalid fvwrapon() option;"
syntax [, W0rd WIdth]
exit 198
}
- opts_exclusive ``word' `width'" fvwrapon
= opts_exclusive " " fvwrapon

```

> _____ begin opts_exclus

> ive _____

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts''' != "" {
= while `''' != "" {

```



```

        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    }
}

> ----- end opts_exclus
> ive -----
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }
}

> ----- end _get_diopts.Wra
> pon -----
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevel
> s' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend
> ' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwr
> ap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
    = c_local diopts
    - if `K' == 2 {
    = if 2 == 2 {
        - c_local `c_opts' ``options'
    = c_local options `''
        - }
        - sreturn local coding `coding'
    = sreturn local coding
        - sreturn local versus `versus'
    = sreturn local versus
        - sreturn local compare `compare'
    = sreturn local compare
        - sreturn local level `level'
    = sreturn local level 95
    }

> ----- end _get_diopts.GetDio
> pts -----
    - c_local `name1' ``diopts'
    = c_local diopts `''
    - local snames : s(macros)

```

```

- foreach sname of local snames {
- local S_`sname' = s(`sname')
= local S_level = s(level)
- }
- local S_`sname' = s(`sname')
= local S_nolog = s(nolog)
- }
- local S_`sname' = s(`sname')
= local S_deriv = s(deriv)
- }
- local S_`sname' = s(`sname')
= local S_namelist = s(namelist)
- }
- local S_`sname' = s(`sname')
= local S_after = s(after)
- }
- local S_`sname' = s(`sname')
= local S_before = s(before)
- }
- local S_`sname' = s(`sname')
= local S_k_fill = s(k_fill)
- }
- local S_`sname' = s(`sname')
= local S_k = s(k)
- }
- sreturn clear
- GetDiopts DEFAULT

```

```

> _____ begin _get_diopts.GetDio
> pts _____
- local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels
> NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NO
> OMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat(string) sfor
> mat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(
> string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> ABBREV
- syntax namelist(max=2) [, `DIOPTS' *]
= syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels A
> LLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells
> EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat
> (string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passth
> ru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passth
> ru) NOABBREV ABBREV *]
- opts_exclusive "`allbaselevels' `noallbaselevels'"
= opts_exclusive " "

```

```

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`baselevels' `nobaselevels'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab

```

```

- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {

```

```

= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
- if `n` < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted` `noomitted`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
    - if `n` < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch` `nolstretch`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}

```

```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____

```

```

- opts_exclusive "`versus' `compare'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive
    - opts_exclusive "`abbrev' `noabbrev'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels

```



```

- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
    local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
    local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `cformat('cformat')'

```

```

    }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth("`sformat'") > 8 {
        local sformat "%8.2f"
        di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat "`sformat'"
    local sformat `sformat(`sformat')'
}
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth("`pformat'") > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat "`pformat'"
    local pformat `pformat(`pformat')'
}
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraon , `fvwraon'
= Wraon ,

```

> _____ begin _get_diopts.Wra

> pon _____

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
    di as err "invalid fvwrapon() option;"
    syntax [, W0rd WIdth]
    exit 198
}
- opts_exclusive "`word' `width'" fvwrapon
= opts_exclusive " " fvwrapon

```

> _____ begin opts_exclus

> ive _____

```

- version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> _____ end opts_exclus
> ive _____
- local fvwrapon `word' `width'
= local fvwrapon
- if `:length local fvwrapon' {
= if 0 {
    c_local fvwrapon fvwrapon(`fvwrapon')
}

> _____ end _get_diopts.Wra
> pon _____
- if "`fvwrap'" != "" {
= if "" != "" {
    FVWrap, `fvwrap'
}
- c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevel
> s' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend
> ' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwr
> ap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
= c_local DEFAULT
- if `K' == 2 {
= if 1 == 2 {
    c_local `c_opts' ``options'
}
- sreturn local coding `coding'
= sreturn local coding
- sreturn local versus `versus'
= sreturn local versus
- sreturn local compare `compare'
= sreturn local compare
- sreturn local level `level'
= sreturn local level 95

```

```

> _____ end _get_diopts.GetDio
> pts _____
    - if ``name2`` == "" {
    = if ```` == "" {
    - GetDiopts DUPS, `options'
    = GetDiopts DUPS,
    _____

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels
> NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NO
> OMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sfor
> mat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(
> string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels A
> LLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells
> EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat
> (string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passth
> ru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passth
> ru) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts`` != "" {
    = while ```` != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "
    _____

```

```

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`baselevels' `nobaselevels'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab

```

```

- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`omitted' `noomitted'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {

```

```

= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
- if `n` < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch` `nolstretch`"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
    - if `n` < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`cnsreport` `fullcnsreport`"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}

```

```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'`` != "" {
= while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

```



```

> _____ end opts_exclus
> ive _____
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive ``coding' `compare''
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive ``versus' `compare''
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____

```

```

- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
}
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
}
- }
- if "`emptycells'" == "" {
= if "" == "" {

```

```

- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `cformat(`cformat')'
  }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth("`sformat'") > 8 {
      local sformat "%8.2f"
      di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat "`sformat'"
    local sformat `sformat(`sformat')'
  }
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth("`pformat'") > 5 {
      local pformat "%5.3f"
      di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat "`pformat'"
    local pformat `pformat(`pformat')'
  }
}

```

```

- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraapon , `fvwraapon'
= Wraapon ,

> _____ begin _get_diopts.Wra
> pon _____
    - capture syntax [, W0rd WIdth]
    - if c(rc) {
        di as err "invalid fvwraapon() option;"
        syntax [, W0rd WIdth]
        exit 198
    }
    - opts_exclusive "`word' `width'" fvwraapon
    = opts_exclusive " " fvwraapon

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
        - exit

> _____ end opts_exclus
> ive _____
    - local fvwraapon `word' `width'
    = local fvwraapon
    - if `:length local fvwraapon' {
    = if 0 {
        c_local fvwraapon fvwraapon(`fvwraapon')
    }

```

```

> _____ end _get_diopts.Wra
> pon _____
    - if "`fvwrap'" != "" {
    = if "" != "" {
      FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevel
> s' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend
> ' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwr
> ap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local DUPS
    - if `K' == 2 {
    = if 1 == 2 {
      c_local `c_opts' ``options''
    }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95
  _____

> _____ end _get_diopts.GetDio
> pts _____
    - }
    - else {
      GetDiopts DUPS options, `options'
      c_local `name2' ``options''
    }
    - local DUPS : list DUPS - DEFAULT
    - gettoken DUPS : DUPS
    - if ``DUPS'' != "" {
    = if ``' != "" {
      if (strpos(`DUPS', "(")) {
        gettoken DUPS : DUPS, parse("(")
        local DUPS `DUPS'()'
      }
      di as err "duplicate {bf:`DUPS'} option not allowed"
      exit 198
    }
    - sreturn clear
    - foreach sname of local snames {
    - sreturn local `sname' = ``S_`sname''

```

```

= sreturn local level = ``95''
- }
- sreturn local `sname' = ``S_`sname'``
= sreturn local nolog = ``nolog''
- }
- sreturn local `sname' = ``S_`sname'``
= sreturn local deriv = ``0''
- }
- sreturn local `sname' = ``S_`sname'``
= sreturn local namelist = ``cluster''
- }
- sreturn local `sname' = ``S_`sname'``
= sreturn local after = ``", robust''
- }
- sreturn local `sname' = ``S_`sname'``
= sreturn local before = ``", argoptlist(Cluster) optlist(OIM OPG Robus
> t) old ``
- }
- sreturn local `sname' = ``S_`sname'``
= sreturn local k_fill = ``12''
- }
- sreturn local `sname' = ``S_`sname'``
= sreturn local k = ``12''
- }

> _____ end _get_dio
> pts _____
- if ``eform'' != ``' {
= if ``' != ``' {
  Eform
  local eform ``r(eform)''
  }
- if ``eform'' != ``' {
= if ``' != ``' {
  local eopt "eform(`eform)'"
  }
- if ``header'' == ``' { Head }
= if ``' == ``' { Head }

> _____ begin glm.H
> ead _____
- di as txt "Generalized linear models" _col(51) "Number of obs" _col(
> 67) "=" _col(69) as res %10.0gc e(N)
Generalized linear models                                Number of obs    =          217
- di as txt "Optimization      : " as res ``e(opt1)'' as txt _col(51) "
> Residual df" _col(67) "=" _col(69) as res %10.0gc e(df)

```

```

      = di as txt "Optimization      : " as res "ML" as txt _col(51) "Residua
> l df" _col(67) "=" _col(69) as res %10.0gc e(df)
Optimization      : ML                               Residual df      =      211
      - di as res _col(20) "`e(opt2)'" as txt _col(51) "Scale parameter" _co
> l(67) "=" _col(70) as res %9.0g e(phi)
      = di as res _col(20) "" as txt _col(51) "Scale parameter" _col(67) "="
> _col(70) as res %9.0g e(phi)
                               Scale parameter =      1
      - di as txt "Deviance" _col(18) "=" as res _col(20) %12.0g e(deviance)
> as txt _col(51) "(1/df) Deviance" _col(67) "=" as res _col(70) %9.0g e(dis
> ers)
Deviance          =  80.95870894                      (1/df) Deviance =  .3836906
      - di as txt "Pearson" _col(18) "=" as res _col(20) %12.0g e(deviance_p
> ) as txt _col(51) "(1/df) Pearson" _col(67) "=" as res _col(70) %9.0g e(dis
> ers_p)
Pearson           =  137.8705369                      (1/df) Pearson  =  .6534149
      - di

      - if `"$SGLM_ml"' == "ml" {
      = if `""' == "ml" {
          di as txt "Variance function: " as res "V(u) = " as res _col(27) "`e
> (varfunct)'" _col(51) as txt "[" as res "`e(varfunct)'" as txt "]"
          }
      - else {
          - di as txt "Variance function: " as res "V(u) = " as res _col(27) "`e
> (varfunct)'" _col(51) as txt "[" as res "`e(varfunct)'" as txt "]"
          = di as txt "Variance function: " as res "V(u) = " as res _col(27) "u+
> (1)u^2" _col(51) as txt "[" as res "Neg. Binomial" as txt "]"
Variance function: V(u) = u+(1)u^2                      [Neg. Binomial]
      - }
      - di as txt "Link function      : " as res "g(u) = " as res _col(27) "`e
> (linkf)'" _col(51) as txt "[" as res "`e(linkt)'" as txt "]"
          = di as txt "Link function      : " as res "g(u) = " as res _col(27) "ln
> (u)" _col(51) as txt "[" as res "Log" as txt "]"
Link function      : g(u) = ln(u)                      [Log]
      - if "`e(hac_kernel)'" != "" {
      = if "" != "" {
          di
          di as txt "HAC kernel (lags): " e(hac_kernel) " ({yellow:`e(hac_lag)
> '})" _c
          local di di
          }
      - else if "`e(settype)'" != "" {
      = else if "" != "" {
          di
          di as txt "Standard errors  : " as res "`e(settype)'" _c

```

```

        local di di
      }
    - else local cr _n
    - if "`e(ll)'" != "" {
    = if "-435.8083057714868" != "" {
    - local cr
    - di

    - local crtype = upper(bsubstr("`e(crittype)'"',1,1)) + bsubstr("`e(
> crittype)'"',2,.))
    = local crtype = upper(bsubstr("`log pseudolikelihood'"',1,1)) + bsubst
> r("`log pseudolikelihood'"',2,.))
    - local crlen = max(18,length("`crtype'"') + 2)
    = local crlen = max(18,length("`Log pseudolikelihood'"') + 2)
    - di as txt _col(51) "{help j_glmic##_new:AIC}" _col(67) "=" as res _
> col(70) %9.0g e(aic)

                                     AIC                                =    4.071966
    - di as txt "`crtype'" _col(`crlen') "=" as res %12.0g e(ll) _c
    = di as txt "Log pseudolikelihood" _col(22) "=" as res %12.0g e(ll) _
> c
Log pseudolikelihood = -435.8083058      - }
    - else if "`e(dis)'" != "" & "`e(dis)'" != "1" {
    = else if "" != "" & "" != "1" {
      local cr
      `di'
      di
      di as txt "Quasi-likelihood model with dispersion: " as res `e(dis)
> ' _c
    }
    - if "`e(ll)'" != "" {
    = if "-435.8083057714868" != "" {
    - di as txt `cr' _col(51) "{help j_glmic##_new:BIC}" _col(67) "=" as
> res _col(70) %9.0g e(bic)
    = di as txt _col(51) "{help j_glmic##_new:BIC}" _col(67) "=" as res
> _col(70) %9.0g e(bic)

                                     BIC                                =    -1054.2
    - }
    - else {
      di as txt `cr' _col(51) "BIC" _col(67) "=" as res _col(70) %9.0g e(b
> ic)
    }
    - di

```



```

> _____ end glm.H
> ead _____
- if "`table'" != "" { exit }
= if "" != "" { exit }
- _coef_table , level(`level') `eopt' first `diopts'
= _coef_table , level(95) first
_____
> _____ begin _coef_ta
> ble _____
- version 11
- local vv : di "version " string(max(11,_caller())) ", missing:"
- if (!c(noisily) & c(coeftabresults) == "off") {
    exit
  }
- _check_eclass
- syntax [, BMATrix(passthru) VMATrix(passthru) * ]
- if "`e(b)'" == "" & "`e(V)'" == "" & "`bmatrix'`vmatrix'""=="" {
= if "matrix" == "" & "matrix" == "" & ""=="" {
    exit
  }
- local mc_cmds contrast margins pwcompare pwmean
- local cmd "`e(cmd)'"
= local cmd "glm"
- local keepmc : list cmd in mc_cmds
- if inlist("`cmd'", "pwcompare", "pwmean") {
= if inlist("glm", "pwcompare", "pwmean") {
    local groups GROUPS
  }
- if "`cmd'" == "regress" {
= if "glm" == "regress" {
    local beta Beta
  }
- if "`cmd'" == "gsem" {
= if "glm" == "gsem" {
    local fvignore fvignore(int 0)
    local flignore flignore
  }
- if "`cmd'" == "sem" {
= if "glm" == "sem" {
    local standardized STANDARDIZED
    local showginvariant SHOWGINvariant
    local nolabel NOLABel LABel NOFVLABel FVLABel
    local nofootnote NOFOOTnote
    local wrap wrap(numlist max=1) fvwrap(passthru)
  }

```

```

- if "`e(mi)'"=="mi" {
= if ""=="mi" {
    local dftable DFTable
    local dfonly DFONLY
    local noclustreport NOCLUSTReport
    local pisematrix PISEMATrix(string)
}
- syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(string)
> DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string) PMATrix
> (string) TSMATrix(string) ROWCFormat(string) ROWPFormat(string) ROWSFormat(s
> tring) NOROWCI MMATrix(string) MVMATrix(string) MEMATrix(string) BSTDMATrix(
> string) CNSMATrix(string) PCLASSMATrix(string) Level(cilevel) prefix(name) c
> nszero(string) suffix(name) OFFSETlist(string asis) `beta' `standardized' NO
> CI NOPValues `dftable' `dfonly' dfci DFPValues dfmissing `groups' COEFLegend
> selegend `fvignore' `flignore' `showginvariant' `nolabel' `nofootnote' `wra
> p' sort `pisematrix' depname(string) COEFTitle(string) coeftitle2(string) pt
> itle(string) cititle(string) NOMCLEgend noCNSReport FULLCNSReport `noclustre
> port' cformat(passthru) sformat(passthru) pformat(passthru) NOFirst First SH
> OWEQns neq(integer -1) NODIPARM NOTEST SEPARATOR(integer 0) NOSKIP OFFSETONL
> Y1 PPlus NOEQCHECK EFORMALL CITYPE(string) eqselect(string) cidisjoint noEFOR
> MNOTE * ]
= syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(string)
> DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string) PMATrix
> (string) TSMATrix(string) ROWCFormat(string) ROWPFormat(string) ROWSFormat(s
> tring) NOROWCI MMATrix(string) MVMATrix(string) MEMATrix(string) BSTDMATrix(
> string) CNSMATrix(string) PCLASSMATrix(string) Level(cilevel) prefix(name) c
> nszero(string) suffix(name) OFFSETlist(string asis) NOCI NOPValues dfci
> DFPValues dfmissing COEFLegend selegend sort depname(string) COEFTit
> le(string) coeftitle2(string) ptitle(string) cititle(string) NOMCLEgend noCN
> SReport FULLCNSReport cformat(passthru) sformat(passthru) pformat(passthru)
> NOFirst First SHOWEQns neq(integer -1) NODIPARM NOTEST SEPARATOR(integer 0)
> NOSKIP OFFSETONLY1 PPlus NOEQCHECK EFORMALL CITYPE(string) eqselect(string)
> cidisjoint noEFORMNOTE * ]
- if "`wrap'" != "" {
= if "" != "" {
    opts_exclusive `"wrap(`wrap')' `fvwrap'"
    local fvwrap fvwrap(`wrap')
}
- if "`nolabel'`label'" != "" {
= if "" != "" {
    opts_exclusive "`nolabel' `label'"
    opts_exclusive "`nofvlabel' `fvlabel'"
    opts_exclusive "`nolabel' `fvlabel'"
    opts_exclusive "`nofvlabel' `label'"
    if "`nolabel'" != "" {
        local fvlabel nofvlabel

```

```

    }
    else {
        local fvlable fvlable
    }
}

- _novce_other_mats, cimatrix("`cimatrix'") pmatrix("`pmatrix'") tsmat
> rix("`tsmatrix'") `noci' `nopvalues' `dfci' `dfpvalues' `cidisjoint'
= _novce_other_mats, cimatrix("") pmatrix("") tsmatrix("")

-----
> ----- begin _coef_table._novce_other_m
> ats -----
    - syntax [anything], [ CIMATrix(string) PMATrix(string) TSMATrix(str
> ing) NOCI NOPValues dfci DFPValues cidisjoint ]
    - if ("`pmatrix'"=="" & "`tsmatrix'"=="" & "`e(V)'"=="" & "`cimatrix
> '"!=" & "`noci'"!="") {
        = if ("'"=="" & "'"=="" & "matrix"=="" & '"!=" & '"!="") {
            sreturn local cimatrix "empt"
        }
        - if ("`pmatrix'"=="" & "`tsmatrix'"!=" & "`e(V)'"=="" & "`cimatrix
> '"=="" & ("`noci'"!="|"`nopvalues'"!=")) {
            = if ("'"=="" & '"!=" & "matrix"=="" & "'"=="" & ("'"!="|'"!=")) {
                sreturn local noci "empt"
                sreturn local nopvalues "empt"
            }
            - if ("`pmatrix'"=="" & "`tsmatrix'"=="" & "`e(V)'"=="" & "`cimatrix
> '"!=" & "`noci'"!="") {
                = if ("'"=="" & "'"=="" & "matrix"=="" & '"!=" & '"!="") {
                    sreturn local cimatrix "empt"
                }
                - if ("`pmatrix'"!=" & "`tsmatrix'"=="" & "`e(V)'"=="" & "`cimatrix
> '"=="" & "`nopvalues'"!="") {
                    = if ("'"!=" & "'"=="" & "matrix"=="" & "'"=="" & '"!="") {
                        sreturn local pmatrix "empt"
                    }
                    - if ("`pmatrix'"!=" & "`tsmatrix'"=="" & "`e(V)'"=="" & "`cimatrix
> '"=="" & "`noci'"!="") {
                        = if ("'"!=" & "'"=="" & "matrix"=="" & "'"=="" & '"!="") {
                            sreturn local noci "empt"
                        }
                    }
                    - if ("`pmatrix'"!="") {
                        = if ("'"!="") {
                            tempname pmat invalid
                            capture matrix `pmat' = `pmatrix'
                            local rc = _rc
                            if (`rc') {
                                display as error "invalid {bf:pmatrix()}"

```

```

exit 198
}
else {
local k: rowsof `pmat'
if (`k'>1 | `k'==0) {
display as error "{bf:pmatix()} should be a row vector"
exit 198
}
}
scalar `isvalid' = 1
mata: _is_in_0_1void("`pmat'", "`isvalid'")
if (`isvalid'==0) {
display as error "invalid {bf:pmatix()}"
di as txt "{p 4 4 2}"
di as smcl as err "{bf:pmatix()}"
di as smcl as err "should contain values inside"
di as smcl as err "the interval [0,1]."
di as smcl as err "{p_end}"
exit 198
}
}
- if("`tsmatrix'"!="") {
= if ("!=") {
tempname tmat
capture matrix `tmat' = `tsmatrix'
local rc = _rc
if (`rc') {
display as error "invalid {bf:tsmatrix()}"
exit 198
}
else {
local k: rowsof `tmat'
if (`k'>1 | `k'==0) {
display as error "{bf:tsmatrix()} should be a row vector"
exit 198
}
}
}
- if("`cimatix'"!="") {
= if ("!=") {
tempname cimat isvalid
capture matrix `cimat' = `cimatix'
local rc = _rc
if (`rc') {
display as error "invalid {bf:cimatix()}"
exit 198
}
}
}

```

```

}
if ("`cidisjoint`"==" & "`e(disjoint)`"=="") {
  scalar `isvalid` = 1
  mata: _is_in_ci("`cimat`", "`isvalid`")
  if (`isvalid`==0) {
    display as error "invalid {bf:cimatrx()}"
    di as txt "{p 4 4 2}"
    di as smcl as err "{bf:cimatrx()}"
    di as smcl as err "lower limit should be"
    di as smcl as err "smaller than the upper"
    di as smcl as err "limit."
    di as smcl as err "{p_end}"
    exit 198
  }
}
}
- if ("`e(V)`"==" & "`dfci`"!=" & "`pmatrx`"!=") {
= if ("matrix"==" & ""!=" & ""!=") {
  opts_exclusive "pmatrx() `dfci`"
}
- if ("`e(V)`"==" & "`dfci`"!=" & "`tsmatrx`"!=") {
= if ("matrix"==" & ""!=" & ""!=") {
  opts_exclusive "tsmatrx() `dfci`"
}
- if ("`e(V)`"==" & "`dfci`"!=" & "`cimatrx`"!=") {
= if ("matrix"==" & ""!=" & ""!=") {
  opts_exclusive "cimatrx() `dfci`"
}
- if ("`e(V)`"==" & "`dfpvalues`"!=" & "`pmatrx`"!=") {
= if ("matrix"==" & ""!=" & ""!=") {
  opts_exclusive "pmatrx() `dfci`"
}
- if ("`e(V)`"==" & "`dfpvalues`"!=" & "`tsmatrx`"!=") {
= if ("matrix"==" & ""!=" & ""!=") {
  opts_exclusive "tsmatrx() `dfpvalues`"
}
- if ("`e(V)`"==" & "`dfpvalues`"!=" & "`cimatrx`"!=") {
= if ("matrix"==" & ""!=" & ""!=") {
  opts_exclusive "cimatrx() `dfpvalues`"
}
}

```

```
> _____ end _coef_table._novce_other_m
```

```
> ats _____
- if ("`s(cimatrx)`"=="empt") {
= if ("=="empt") {
  local cimatrx ""

```

```

    }
- if ("`s(pmatrix)'"=="empt") {
= if ("'"=="empt") {
    local pmatrix ""
    }
- if ("`s(noci)'"=="empt") {
= if ("'"=="empt") {
    local noci ""
    }
- if ("`s(nopvalues)'"=="empt") {
= if ("'"=="empt") {
    local nopvalues ""
    }
- if ("`e(V)'"!=" & "`cidisjoint'"!="") {
= if ("matrix"!=" & ""!="") {
    display in red "option {bf:cidisjoint} not allowed when e(V) is post
> ed"
    exit 198
    }
- else local fvlabel `nofvlabel' `fvlabel'
= else local fvlabel
- local type `coeflegend' `selegend'
= local type
- opts_exclusive "`type' `standardized'"
= opts_exclusive " "


---


> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while "`opts'" != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit


---


> ----- end opts_exclus
> ive -----
    - if (``rowmatrix'"==" & "`norowci'"!="") {
    = if (`'"==" & ""!="") {

```

```

    di as err "{bf:norowci} requires {bf:rowmatrix()}"
    exit 198
}
- if ("`dftable'" != "" & "`norowci'" != "") {
= if ("'" != "" & "'" != "") {
    di as err "{bf:norowci} is not allowed with {bf:`dftable'}"
    exit 198
}
- if ("`dfonly'" != "" & "`norowci'" != "") {
= if ("'" != "" & "'" != "") {
    di as err "{bf:norowci} is not allowed with {bf:`dfonly'}"
    exit 198
}
- if ("`noci'" != "" & "`norowci'" != "") {
= if ("'" != "" & "'" != "") {
    di as err "{bf:norowci} is not allowed with {bf:`noci'}"
    exit 198
}
- if "`standardized'" != "" & "`bstdmatrix'" != "" {
= if "" != "" & "" != "" {
    local beta beta
    local standardized
}
- if `:length local type' == 0 {
= if 0 == 0 {
- local type `beta' `noci' `nopvalues' `dftable' `dfonly' `groups' `df
> ci' `dfpvalues'
    = local type
    - }
    - opts_exclusive "`type'"
    = opts_exclusive ""
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while "`opts'" != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {

```

```

        - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`first' `nofirst'"
    = opts_exclusive "first "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts first
    - local n 0
    - while ```opts'`` != "" {
    = while `"first" != "" {
    - local ++n
    - gettoken item`n' opts : opts, bind
    = gettoken item1 opts : opts, bind
    - }
    - while ```opts'`` != "" {
    = while `"" != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 1 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`first' `showeqns'"
    = opts_exclusive "first "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts first
    - local n 0
    - while ```opts'`` != "" {
    = while `"first" != "" {
    - local ++n
    - gettoken item`n' opts : opts, bind
    = gettoken item1 opts : opts, bind

```



```

- }
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 1 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- local cnsreport `cnsreport' `fullcnsreport'
= local cnsreport
- opts_exclusive ``cnsreport''
= opts_exclusive ""

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- if ``showeqns'' != "" {
= if `'' != "" {
    local nofirst nofirst
    }
- if ``ematrix'`noeqcheck'' == "" {
= if `'' == "" {
- if ``e(error)'' == "matrix" {
= if `'' == "matrix" {
    local ematrix e(error)
    }
- }

```

```

- _get_mcompare, `options'
= _get_mcompare,

```

```

> begin _get_mcomp
> are
- version 11
- local cmd ``e(cmd)'''
= local cmd ``glm'''
- syntax [name(name=caller)] [, *]
- local is_pwc = inlist("pwcompare", ``cmd'', ``caller'') | inlist("
> pwmean", ``cmd'', ``caller'')
= local is_pwc = inlist("pwcompare", "glm", "") | inlist("pwmean", "
> glm", "")
- local is_marg = inlist("margins", ``cmd'', ``e(cmd2)''', ``caller''
> )
= local is_marg = inlist("margins", "glm", "", "")
- local OPTIONS NOADJust BONferroni DUNCAn DUNNett SCHeffe SIDak SNK
> TUKey ADJustall
- if `is_pwc' {
= if 0 {
syntax [name] [, `OPTIONS' MCOMPare(string) *]
}
- else {
- syntax [name] [, MCOMPare(string) *]
- local suboption mcompare()
- }
- sreturn clear
- sreturn local options ``options'''
= sreturn local options `'''
- if `is_pwc' {
= if 0 {
local METHOD `noadjust' `bonferroni' `duncan' `dunnett' `scheffe'
> `sidak' `snk' `tukey'
local METHOD : list uniq METHOD
opts_exclusive ``METHOD''
local ALL `adjustall'
opts_exclusive ``noadjust' `ALL''
}
- local 0 `", `mcompare'''
= local 0 `", ""
- capture syntax [, `OPTIONS']
= capture syntax [, NOADJust BONferroni DUNCAn DUNNett SCHeffe SIDak
> SNK TUKey ADJustall]
- if c(rc) {
di as err "invalid mcompare() option;"
di as err "method ``mcompare'' not allowed"

```

```

        error 198
    }
    - local METHOD `METHOD' `noadjust' `bonferroni' `duncan' `dunnett' `
> scheffe' `sidak' `snk' `tukey'
    = local METHOD
    - local METHOD : list uniq METHOD
    - local ALL `ALL' `adjustall'
    = local ALL
    - local ALL : list uniq ALL
    - opts_exclusive "" `METHOD' `suboption'
    = opts_exclusive "" mcompare()

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
        - exit

> _____ end opts_exclus
> ive _____
    - if "`METHOD' == "" {
    = if "" == "" {
        - if "`ALL' != "" {
    = if "" != "" {
        di as err "multiple comparison method required with the adjustall
> option"
        exit 198
    }
    - local METHOD noadjust
    - local noadjust noadjust
    - }
    - opts_exclusive "`ALL' `noadjust' `suboption'
    = opts_exclusive " noadjust" mcompare()

> _____ begin opts_exclus
> ive _____

```

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts noadjust
- local n 0
- while ```opts'`` != "" {
= while `"noadjust" != "" {
- local ++n
- gettoken item`n' opts : opts, bind
= gettoken item1 opts : opts, bind
- }
- while ```opts'`` != "" {
= while `""' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 1 < 2 {
- exit

> _____ end opts_exclus
> ive _____
- local EXCLUDE duncan dunnett snk tukey
- if `:list METHOD in EXCLUDE' {
= if 0 {
  if `is_pwc' {
    local opt : copy local METHOD
  }
  else {
    local opt "mcompare(`METHOD')"
  }
  local cmdlist anova manova regress mvreg pwmean
  if ""`cmd' == "pwcompare" {
    local cmd ```e(cmd_est)``'
  }
  if `is_marg' {
    local cmd margins
  }
  if !`:list cmd in cmdlist' | !`is_pwc' {
    di as err `"method `opt' is not allowed with results from `cmd'"
    exit 322
  }
  if ```e(prefix)``' == "svy" {
    di as err `"method `opt' is not allowed with results using the svy
> prefix"
    exit 322

```

```

    }
    local vce ``e(vce)'''
    if !inlist("`vce'", "", "ols") {
    di as err ``method `opt' is not allowed with results using vce(`vc
> e')'''
    exit 322
    }
    }
    - local EXCLUDE duncan dunnett snk tukey scheffe
    - if `:list METHOD in EXCLUDE' {
    = if 0 {
    if ""ALL"" != "" {
    di as err ``option adjustall is not allowed with method `METHOD'''
    exit 198
    }
    }
    - sreturn local method ``METHOD'''
    = sreturn local method `noadjust'
    - sreturn local adjustall ``ALL'''
    = sreturn local adjustall `'''
    }

> _____ end _get_mcomp
> are _____
    - local method ``s(method)'''
    = local method `noadjust'
    - local all ``s(adjustall)'''
    = local all `'''
    - local options ``s(options)'''
    = local options `'''
    - if ``method' != "noadjust" {
    = if "noadjust" != "noadjust" {
    local keepmc 1
    }
    - opts_exclusive ``all' `groups'
    = opts_exclusive " "
    }

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `''' != "" {
    local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - if "`method'" == "dunnett" {
    = if "noadjust" == "dunnett" {
        opts_exclusive "`method' `groups'"
    }
    - _get_diopts diopts options, `options' `fvwrap' `fvlabel'
    = _get_diopts diopts options,
}
> ----- begin _get_dio
> pts -----
    - version 11
    - syntax namelist(max=2) [, *]
    - gettoken name1 namelist : namelist
    - gettoken name2 namelist : namelist
    - GetDiopts diopts options, `options'
    = GetDiopts diopts options,
}
> ----- begin _get_diopts.GetDio
> pts -----
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab

```

```

- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`allbaselevels' `nbaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`baselevels' `nbaselevels'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {

```

```

= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
- if `n` < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`emptycells` `noemptycells`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
    - if `n` < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`fvlabel` `nofvlabel`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}

```



```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`omitted' `noomitted'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`coeflegend' `selegend'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`versus' `compare'"
    = opts_exclusive " "

> ----- begin opts_exclus

```

```

> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus

> ive
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

> ----- begin opts_exclus

> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus

> ive
- local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted

```

```

- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
    local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
    local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `cformat(`cformat')'
  }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'

```

```

if fmtwidth("`sformat'") > 8 {
local sformat "%8.2f"
di "{txt}note: invalid sformat(), using default"
}
sreturn local sformat "`sformat'"
local sformat `sformat(`sformat')`
}
- if `:length local pformat' {
= if 0 {
confirm numeric format `pformat'
if fmtwidth("`pformat'") > 5 {
local pformat "%5.3f"
di "{txt}note: invalid pformat(), using default"
}
sreturn local pformat "`pformat'"
local pformat `pformat(`pformat')`
}
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
local levelopt level(`level')
}
- Wraon , `fvwraon'
= Wraon ,

```

> _____ begin _get_diopts.Wra

> pon _____

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
di as err "invalid fvwrapon() option;"
syntax [, W0rd WIdth]
exit 198
}
- opts_exclusive "`word' `width'" fvwrapon
= opts_exclusive " " fvwrapon

```

> _____ begin opts_exclus

> ive _____

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0

```

```

- while ``opts'' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> _____ end opts_exclus
> ive _____
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }

> _____ end _get_diopts.Wra
> pon _____
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local diopts
    - if `K' == 2 {
    = if 2 == 2 {
        - c_local `c_opts' ``options''
        = c_local options `"'
        - }
        - sreturn local coding `coding'
        = sreturn local coding
        - sreturn local versus `versus'
        = sreturn local versus
        - sreturn local compare `compare'
        = sreturn local compare
        - sreturn local level `level'
        = sreturn local level 95

> _____ end _get_diopts.GetDio
> pts _____
    - c_local `name1' ``diopts''

```

```

= c_local diopts `""`
- local snames : s(macros)
- foreach sname of local snames {
- local S_`sname' = s(`sname')
= local S_level = s(level)
- }
- local S_`sname' = s(`sname')
= local S_method = s(method)
- }
- sreturn clear
- GetDiopts DEFAULT

```

```

> _____ begin _get_diopts.GetDio
> pts _____
- local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
- syntax namelist(max=2) [, `DIOPTS' *]
= syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
- opts_exclusive "`allbaselevels' `noallbaselevels'"
= opts_exclusive " "

```

```

> _____ begin opts_exclus
> ive _____
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `""' != "" {
local ++n
gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`baselevels' `nobaselevels'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0

```

```

- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
  - opts_exclusive "`coeflegend' `selegend'"
  = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while ``opts'' != "" {
  = while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit

```

```

> ----- end opts_exclus
> ive -----
  - opts_exclusive "`noci' `nopvalues'"
  = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while ``opts'' != "" {
  = while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind

```

```

        }
        - if `n' < 2 {
= if 0 < 2 {
        - exit
    }
}
> ----- end opts_exclus
> ive -----
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`versus' `compare'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'"" != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {

```

```

        = if 0 < 2 {
        - exit
    }
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`abbrev' `noabbrev'"
    = opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
        - exit
    }
}
> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels
    - local emptycells `emptycells' `noemptycells'
    = local emptycells
    - local omitted `omitted' `noomitted'
    = local omitted
    - local lstretch `lstretch' `nolstretch'
    = local lstretch
    - local fvlabel `fvlabel' `nofvlabel'
    = local fvlabel
    - local abbrev `abbrev' `noabbrev'
    = local abbrev
    - if "`allbaselevels'`baselevels'" == "" {
    = if "" == "" {
        - if c(showbaselevels) == "all" {
            local allbaselevels allbaselevels
        }
    - else if c(showbaselevels) == "on" {

```

```

    local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
}
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
}
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
}
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth("`cformat'") > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat "`cformat'"
  local cformat `cformat(`cformat')'
}
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth("`sformat'") > 8 {
    local sformat "%8.2f"
    di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat "`sformat'"
  local sformat `sformat(`sformat')'
}
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth("`pformat'") > 5 {
    local pformat "%5.3f"

```

```

di "{txt}note: invalid pformat(), using default"
}
sreturn local pformat ``pformat``
local pformat `pformat(pformat)`
}
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraupon , `fvwraupon'
= Wraupon ,

> ----- begin _get_diopts.Wra
> pon -----
    - capture syntax [, W0rd WIdth]
    - if c(rc) {
        di as err "invalid fvwraupon() option;"
        syntax [, W0rd WIdth]
        exit 198
    }
    - opts_exclusive ``word' `width' fvwraupon
    = opts_exclusive " " fvwraupon

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
        - exit

> ----- end opts_exclus
> ive -----
    - local fvwraupon `word' `width'

```



```

        = local fvwrapon
        - if `:length local fvwrapon' {
        = if 0 {
            c_local fvwrapon fvwrapon(`fvwrapon')
        }
    }
}

> _____ end _get_diopts.Wra
> pon _____
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local DEFAULT
    - if `K' == 2 {
    = if 1 == 2 {
        c_local `c_opts' ``options''
    }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95
}

> _____ end _get_diopts.GetDio
> pts _____
    - if ``name2'' == "" {
    = if ``options'' == "" {
        GetDiopts DUPS, `options'
    }
    - else {
    - GetDiopts DUPS options, `options'
    = GetDiopts DUPS options,
    }
}

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0

```

```

> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit


---


> 

---

 end opts_exclus
> ive 

---


    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "


---


> 

---

 begin opts_exclus
> ive 

---


    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {

```

```

        = if 0 < 2 {
        - exit
    }
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels' `nobaselevels'"
    = opts_exclusive " "
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    }
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    }
> ----- end opts_exclus

```

```

> ive -----
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "
    -----

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`coeflegend' `selegend'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab

```

```

- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`nocl' `nopvalues'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts

```

```

- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}


---


> 

---

 end opts_exclus
> ive 

---


    - local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
= local baselevels
    - local emptycells `emptycells' `noemptycells'
= local emptycells
    - local omitted `omitted' `noomitted'
= local omitted
    - local lstretch `lstretch' `nolstretch'
= local lstretch
    - local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
    - local abbrev `abbrev' `noabbrev'
= local abbrev
    - if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
    - if c(showbaselevels) == "all" {
        local allbaselevels allbaselevels
    }
    - else if c(showbaselevels) == "on" {
        local baselevels baselevels
    }
    - }
    - if "`emptycells'" == "" {
= if "" == "" {
    - if c(showemptycells) == "off" {
        local emptycells noemptycells
    }
    - }
    - if "`omitted'" == "" {
= if "" == "" {
    - if c(showomitted) == "off" {
        local omitted noomitted
    }
    - }
    - if "`lstretch'" == "" {
= if "" == "" {
    - if c(lstretch) == "off" {

```



```

    local lstretch nolstretch
    }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth(`""cformat'') > 9 {
        local cformat "%9.0g"
        di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat `""cformat'""
    local cformat `cformat(`cformat')""
    }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth(`""sformat'') > 8 {
        local sformat "%8.2f"
        di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat `""sformat'""
    local sformat `sformat(`sformat')""
    }
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`""pformat'') > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat `""pformat'""
    local pformat `pformat(`pformat')""
    }
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
    }
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
    }
- Wraon , `fvwraon'
= Wraon ,

```

```

> _____ begin _get_diopts.Wra
> pon _____

```

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
  di as err "invalid fvwrapon() option;"
  syntax [, W0rd WIdth]
  exit 198
}
- opts_exclusive "`word' `width'" fvwrapon
= opts_exclusive " " fvwrapon

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts'"" != "" {
= while `""' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- local fvwrapon `word' `width'
= local fvwrapon
- if `:length local fvwrapon' {
= if 0 {
  c_local fvwrapon fvwrapon(`fvwrapon')
}

```

```

> ----- end _get_diopts.Wra
> pon -----
- if "`fvwrap'" != "" {
= if "" != "" {
  FVWrap, `fvwrap'
}
- c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
= c_local DUPS
- if `K' == 2 {

```

```

= if 2 == 2 {
- c_local `c_opts' ``options'''
= c_local options `'''
- }
- sreturn local coding `coding'
= sreturn local coding
- sreturn local versus `versus'
= sreturn local versus
- sreturn local compare `compare'
= sreturn local compare
- sreturn local level `level'
= sreturn local level 95
}

> ----- end _get_diopts.GetDio
> pts -----
- c_local `name2' ``options'''
= c_local options `'''
- }
- local DUPS : list DUPS - DEFAULT
- gettoken DUPS : DUPS
- if ``DUPS''' != "" {
= if `''' != "" {
    if (strpos(`DUPS''', "(")) {
    gettoken DUPS : DUPS, parse("(")
    local DUPS `DUPS'()'
    }
    di as err "duplicate {bf:`DUPS'} option not allowed"
    exit 198
  }
- sreturn clear
- foreach sname of local snames {
- sreturn local `sname' = ``S_`sname'''
= sreturn local level = `95'
- }
- sreturn local `sname' = ``S_`sname'''
= sreturn local method = `noadjust'
- }
}

> ----- end _get_dio
> pts -----
- local legend coeflegend selegend
- local legend : list legend & diopts
- local diopts : list diopts - legend
- local lstretch lstretch nolstretch
- local lstretch : list lstretch & diopts
- local diopts : list diopts - lstretch

```

```

- local markdown markdown
- local markdown : list markdown & diopts
- local diopts : list diopts - markdown
- _get_diopts ignore, `diopts' `cformat' `sformat' `pformat'
= _get_diopts ignore,

```

```

> _____ begin _get_dio
> pts _____
    - version 11
    - syntax namelist(max=2) [, *]
    - gettoken name1 namelist : namelist
    - gettoken name2 namelist : namelist
    - GetDiopts diopts options, `options'
    = GetDiopts diopts options,

```

```

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "

```

```

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {

```

```

        = if 0 < 2 {
        - exit
    }
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "
    -----
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    }
    -----
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels' `nobaselevels'"
    = opts_exclusive " "
    -----
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    }
    -----
> ----- end opts_exclus

```

```

> ive -----
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "
-----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'"" != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
-----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "
-----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'"" != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
-----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted' `noomitted'"
    = opts_exclusive " "
-----

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab

```

```

- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {

```



```

= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
- if `n` < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding` `compare`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""`opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
    - if `n` < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`versus` `compare`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""`opts`"" != "" {
= while `""` != "" {
    local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ``opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels' `noallbaselevels'
= local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
= local baselevels
    - local emptycells `emptycells' `noemptycells'
= local emptycells
    - local omitted `omitted' `noomitted'
= local omitted
    - local lstretch `lstretch' `nolstretch'
= local lstretch
    - local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
    - local abbrev `abbrev' `noabbrev'
= local abbrev
    - if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
    - if c(showbaselevels) == "all" {

```

```

    local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth("`cformat'") > 9 {
    local cformat "%9.0g"
    di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat "`cformat'"
  local cformat `cformat(`cformat')"'
}
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth("`sformat'") > 8 {
    local sformat "%8.2f"
    di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat "`sformat'"
  local sformat `sformat(`sformat')"'
}
- if `:length local pformat' {
= if 0 {

```

```

confirm numeric format `pformat'
if fmtwidth("`pformat'") > 5 {
local pformat "%5.3f"
di "{txt}note: invalid pformat(), using default"
}
sreturn local pformat "`pformat'"
local pformat `pformat(`pformat')'
}
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
local levelopt level(`level')
}
- Wraapon , `fvwraapon'
= Wraapon ,

```

> _____ begin _get_diopts.Wra

> pon _____

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
di as err "invalid fvwrapon() option;"
syntax [, W0rd WIdth]
exit 198
}
- opts_exclusive "`word' `width'" fvwrapon
= opts_exclusive " " fvwrapon

```

> _____ begin opts_exclus

> ive _____

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
local ++n
gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> _____ end opts_exclus
> ive _____
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
      c_local fvwrapon fvwrapon(`fvwrapon')
    }
    _____

> _____ end _get_diopts.Wra
> pon _____
    - if "`fvwrap'" != "" {
    = if "" != "" {
      FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
    = c_local diopts
    - if `K' == 2 {
    = if 2 == 2 {
      - c_local `c_opts' ``options''
      = c_local options ``''
    }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95
    _____

> _____ end _get_diopts.GetDio
> pts _____
    - c_local `name1' ``diopts''
    = c_local ignore ``''
    - local snames : s(macros)
    - foreach sname of local snames {
    - local S_`sname' = s(`sname')
    = local S_level = s(level)
    - }
    - local S_`sname' = s(`sname')
    = local S_method = s(method)
    - }

```

```

- sreturn clear
- GetDiopts DEFAULT

```

```

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "

```

```

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "

```

```

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab

```

```

- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`baselevels' `nobaselevels'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {

```

```

= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
- if `n` < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`fvlabel` `nofvlabel`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts` != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
    - if `n` < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted` `noomitted`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts` != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}

```



```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`coeflegend' `selegend'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'"" != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'"" != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist

```

```

- opts_exclusive "`coding' `compare'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while `"'`opts'"' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while `"'`opts'"' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus

```

```

> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels
    - local emptycells `emptycells' `noemptycells'
    = local emptycells
    - local omitted `omitted' `noomitted'
    = local omitted
    - local lstretch `lstretch' `nolstretch'
    = local lstretch
    - local fvlabel `fvlabel' `nofvlabel'
    = local fvlabel
    - local abbrev `abbrev' `noabbrev'
    = local abbrev
    - if "`allbaselevels'`baselevels'" == "" {
    = if "" == "" {
    - if c(showbaselevels) == "all" {
        local allbaselevels allbaselevels
    }
    - else if c(showbaselevels) == "on" {
        local baselevels baselevels
    }
    - }
    - if "`emptycells'" == "" {
    = if "" == "" {
    - if c(showemptycells) == "off" {
        local emptycells noemptycells
    }
    - }

```

```

- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth("`sformat'") > 8 {
      local sformat "%8.2f"
      di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat "`sformat'"
    local sformat `sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth("`pformat'") > 5 {
      local pformat "%5.3f"
      di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat "`pformat'"
    local pformat `pformat(`pformat')"'
  }
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS' ]
  }

```

```

- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
    }
- Wraapon , `fvwraapon'
= Wraapon ,

> _____ begin _get_diopts.Wra
> pon _____
    - capture syntax [, W0rd WIdth]
    - if c(rc) {
        di as err "invalid fvwraapon() option;"
        syntax [, W0rd WIdth]
        exit 198
    }
    - opts_exclusive "`word' `width'" fvwraapon
= opts_exclusive " " fvwraapon

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ``"`opts`"' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
    - if `n' < 2 {
= if 0 < 2 {
        - exit

> _____ end opts_exclus
> ive _____
    - local fvwraapon `word' `width'
= local fvwraapon
    - if `:length local fvwraapon' {
= if 0 {
        c_local fvwraapon fvwraapon(`fvwraapon')
        }

> _____ end _get_diopts.Wra
> pon _____
    - if "`fvwrap'" != "" {

```

```

        = if "" != "" {
            FVWrap, `fvwrap`
        }
        - c_local `c_diopts` `levelopt` `vsquish` `allbaselevels` `baselev
> els` `cnsreport` `fullcnsreport` `emptycells` `omitted` `lstretch` `coeflege
> nd` `selegend` `cformat` `sformat` `pformat` `coding` `versus` `compare` `fv
> wrap` `fvwrapon` `fvlabel` `noci` `nopvalues` `markdown` `citype` `abbrev`
        = c_local DEFAULT
        - if `K` == 2 {
        = if 1 == 2 {
            c_local `c_opts` ``options``
        }
        - sreturn local coding `coding`
        = sreturn local coding
        - sreturn local versus `versus`
        = sreturn local versus
        - sreturn local compare `compare`
        = sreturn local compare
        - sreturn local level `level`
        = sreturn local level 95
    }
}

> _____ end _get_diopts.GetDio
> pts _____
    - if ``name2`` == "" {
    = if `` == "" {
    - GetDiopts DUPS, `options`
    = GetDiopts DUPS,

> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS` *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive ``allbaselevels` `noallbaselevels``
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    -----

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels' `nobaselevels'"
    = opts_exclusive " "
    -----

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab

```



```

- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {

```

```

= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
- if `n` < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`omitted` `noomitted`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
    - if `n` < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch` `nolstretch`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while `""opts`"" != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}

```

```

- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while "`opts'" != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____

```

```

- opts_exclusive "`versus' `compare'"
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive
    - opts_exclusive "`abbrev' `noabbrev'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels

```

```

- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
    local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
    local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `cformat(`cformat')'

```

```

    }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth(`"'sformat'"') > 8 {
        local sformat "%8.2f"
        di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat `"'sformat'"'
    local sformat `"'sformat(`sformat')'"'
}
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`"'pformat'"') > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat `"'pformat'"'
    local pformat `"'pformat(`pformat')'"'
}
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraapon , `fvwraapon'
= Wraapon ,

```

> _____ begin _get_diopts.Wra

> pon _____

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
    di as err "invalid fvwraapon() option;"
    syntax [, W0rd WIdth]
    exit 198
}
- opts_exclusive "'word' `width'" fvwraapon
= opts_exclusive " " fvwraapon

```

> _____ begin opts_exclus

> ive _____

```

- version 8.2

```

```

- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> _____ end opts_exclus
> ive _____
- local fvwrapon `word' `width'
= local fvwrapon
- if `:length local fvwrapon' {
= if 0 {
    c_local fvwrapon fvwrapon(`fvwrapon')
}

> _____ end _get_diopts.Wra
> pon _____
- if "`fvwrap'" != "" {
= if "" != "" {
    FVWrap, `fvwrap'
}
- c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
= c_local DUPS
- if `K' == 2 {
= if 1 == 2 {
    c_local `c_opts' ``options'
}
- sreturn local coding `coding'
= sreturn local coding
- sreturn local versus `versus'
= sreturn local versus
- sreturn local compare `compare'
= sreturn local compare
- sreturn local level `level'
= sreturn local level 95

```



```

> _____ end _get_diopts.GetDio
> pts _____
    - }
    - else {
        GetDiopts DUPS options, `options'
        c_local `name2' ``options'
    }
    - local DUPS : list DUPS - DEFAULT
    - gettoken DUPS : DUPS
    - if ``DUPS' != "" {
= if ``' != "" {
        if (strpos(`DUPS', "(")) {
            gettoken DUPS : DUPS, parse("(")
            local DUPS `DUPS'()'
        }
        di as err "duplicate {bf:`DUPS'} option not allowed"
        exit 198
    }
    - sreturn clear
    - foreach sname of local snames {
    - sreturn local `sname' = ``S_`sname'
= sreturn local level = `95'
    - }
    - sreturn local `sname' = ``S_`sname'
= sreturn local method = `noadjust'
    - }

> _____ end _get_dio
> pts _____
    - local cformat ``s(cformat)'
= local cformat ``'
    - local sformat ``s(sformat)'
= local sformat ``'
    - local pformat ``s(pformat)'
= local pformat ``'
    - _get_eformopts , eformopts(`options') allowed(__all__) soptions
= _get_eformopts , eformopts() allowed(__all__) soptions

> _____ begin _get_eformo
> pts _____
    - version 8.0
    - syntax [, eformopts(string asis) soptions ALLOWed(string) ]
    - local 0 , `eformopts'
= local 0 ,
    - local EFALL NOHR hr NOSHR shr or IRr RRr tr TRatio
    - if ``soptions' != "" {

```

```

= if "soptions" != "" {
- syntax [, EForm1(passthru) EForm `EFALL' * ]
= syntax [, EForm1(passthru) EForm NOHR hr NOSHR shr or IRr RRr tr T
> Ratio * ]
- local opts ``options'
= local opts ``'
- local 0 , `eform1' `eform' `nohr' `hr' `noshr' `shr' `or' `irr' `r
> rr' `tr' `tratio'
= local 0 ,
- }
- if "`allowed'" == "__all__" {
= if "__all__" == "__all__" {
- local allowed `EFALL'
= local allowed NOHR hr NOSHR shr or IRr RRr tr TRatio
- }
- foreach ef of local allowed {
- capture confirm name `ef'
= capture confirm name NOHR
- if _rc {
di as err "`ef' is not a valid name"
exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr
- }
- capture confirm name `ef'
= capture confirm name hr
- if _rc {
di as err "`ef' is not a valid name"
exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr
- }
- capture confirm name `ef'
= capture confirm name NOSHR
- if _rc {
di as err "`ef' is not a valid name"
exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr
- }
- capture confirm name `ef'
= capture confirm name shr
- if _rc {

```

```

    di as err "`ef' is not a valid name"
    exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr
- }
- capture confirm name `ef'
= capture confirm name or
- if _rc {
    di as err "`ef' is not a valid name"
    exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or
- }
- capture confirm name `ef'
= capture confirm name IRr
- if _rc {
    di as err "`ef' is not a valid name"
    exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr
- }
- capture confirm name `ef'
= capture confirm name RRr
- if _rc {
    di as err "`ef' is not a valid name"
    exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr rrr
- }
- capture confirm name `ef'
= capture confirm name tr
- if _rc {
    di as err "`ef' is not a valid name"
    exit 198
}
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr rrr tr
- }
- capture confirm name `ef'
= capture confirm name TRatio
- if _rc {
    di as err "`ef' is not a valid name"

```

```

        exit 198
    }
    - local efopts `efopts' `=lower("`ef'")'
    = local efopts nohr hr noshr shr or irr rrr tr tratio
    - }
    - local efopts : list uniq efopts
    - syntax [, EForm1(string) EForm `allowed' ]
    = syntax [, EForm1(string) EForm NOHR hr NOSHR shr or IRr RRr tr TRa
> tio ]
    - foreach ef of local efopts {
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - local eform `eform' ``ef''
    = local eform
    - }
    - if ```eform1''`'=="Odds ratio" {
    = if ```eform1''`'=="Odds ratio" {
        local eform_cons_ti = "Odds"
        local eform_cons_note = "odds ratios"
    }
    - else if ```eform1''`'=="Haz. ratio" {
    = else if ```eform1''`'=="Haz. ratio" {
        local eform_cons_ti = "Hazard"
        local eform_cons_note = "hazard ratios"
    }

```

```

}
- else if ``eform1''=="Time ratio" {
= else if ``''=="Time ratio" {
  local eform_cons_ti = "Time"
  local eform_cons_note = "time ratios"
}
- else if ``eform1''=="IRR" {
= else if ``''=="IRR" {
  local eform_cons_ti = "Inc. rate"
  local eform_cons_note = "incidence-rate ratios"
  local eform_cons_ti2 = "incidence rate"
}
- else if ``eform1''=="Risk ratio" {
= else if ``''=="Risk ratio" {
  local eform_cons_ti = "Risk"
  local eform_cons_note = "risk ratios"
}
- else if ``eform1''=="Hlth ratio" {
= else if ``''=="Hlth ratio" {
  local eform_cons_ti = "Health"
  local eform_cons_note = "health ratios"
}
- local k : list sizeof eform
- if `k' {
= if 0 {
  opts_exclusive ``eform''
  if `:length local eform1' {
    opts_exclusive "eform()" `eform''
  }
}
- if `k' {
= if 0 {
  if ("`eform'"=="eform") local eform1 = "exp(b)"
  else if ("`eform'"=="hr") {
    local eform1 = "Haz. ratio"
    local eform_cons_ti = "Hazard"
    local eform_cons_note = "hazard ratios"
  }
  else if ("`eform'"=="shr") {
    local eform1 = "SHR"
    local eform_cons_ti = "Subhazard"
    local eform_cons_note = "subhazard ratios"
  }
  else if ("`eform'"=="tr") {
    local eform1 = "Time ratio"
    local eform_cons_ti = "Time"

```

```

    local eform_cons_note = "time ratios"
  }
  else if ("`eform'"=="tratio") {
    local eform1 = "Time ratio"
    local eform_cons_ti = "Time"
    local eform_cons_note = "time ratios"
  }
  else if ("`eform'"=="or") {
    local eform1 = "Odds ratio"
    if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cmd)'"==
> "cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
      local eform_cons_ti = "Rel. risk"
      local eform_cons_note = "relative-risk ratios"
      local eform_cons_ti2 = "relative risk"
    }
    else {
      local eform_cons_ti = "Odds"
      local eform_cons_note = "odds ratios"
    }
  }
  else if ("`eform'"=="irr") {
    local eform1 = "IRR"
    local eform_cons_ti = "Inc. rate"
    local eform_cons_note = "incidence-rate ratios"
    local eform_cons_ti2 = "incidence rate"
  }
  else if ("`eform'"=="rrr") {
    local eform1 = "RRR"
    local eform_cons_ti = "Rel. risk"
    local eform_cons_note = "relative-risk ratios"
    local eform_cons_ti2 = "relative risk"
  }
  else if ("`eform'"!="nohr") & ("`eform'"!="noshr") {
    local eform1 = upper("`eform'")
  }
}

- sreturn clear
- sreturn local options ```opts'''
= sreturn local options `'''
- sreturn local opt `eform'
= sreturn local opt
- sreturn local str `eform1'
= sreturn local str
- if ```eform1''' != "" {
= if `''' != "" {
  sreturn local eform eform("`eform1'")

```

```

    }
    - else sreturn local eform ""
    - sreturn local eform_cons_ti `eform_cons_ti'
    = sreturn local eform_cons_ti
    - sreturn local eform_cons_note `eform_cons_note'
    = sreturn local eform_cons_note
    - sreturn local eform_cons_ti2 `eform_cons_ti2'
    = sreturn local eform_cons_ti2
  }
}
> _____ end _get_eformo
> pts _____
    - local tr_item = ``s(eform_cons_note)'''
    = local tr_item = `'''
    - if inlist("`bmatrix'", "", "e(b)") & "`e(k_eform)'" == "0" {
    = if inlist("", "", "e(b)") & "" == "0" {
      local eform
    }
    - else local eform ``s(str)'''
    = else local eform `'''
    - local eform_cons_ti ``s(eform_cons_ti)'''
    = local eform_cons_ti `'''
    - local eform_cons_ti2 ``s(eform_cons_ti2)'''
    = local eform_cons_ti2 `'''
    - if ("`e(consonly)'"!="1" | ``eform_cons_ti'""=="" ) {
    = if ("0"!="1" | `'''=="" ) {
      - local eformdi ``s(str)'''
      = local eformdi `'''
    }
    - else {
      local eformdi ``eform_cons_ti'''
      local tr_item = cond(missing("`eform_cons_ti2'"), strlower("`eform_
> cons_ti'"), ``eform_cons_ti2'")
    }
    - local coefttl = cond("`eform'""==`'''', ``coeftitle''', ``eformdi'
> ''')
    = local coefttl = cond(`'''==`'''', `''', `''')
    - local options ``s(options)'''
    = local options `'''
    - _get_diparmopts, diparmopts(`options') level(`level')
    = _get_diparmopts, diparmopts() level(95)
  }
}
> _____ begin _get_diparmo
> pts _____
    - if _caller() < 8.2 {
      _get_diparmopts_8 `0'
      exit
    }
  }
}

```

```

    }
    - version 9
    - local version : di "version " string(_caller()) ":"
    - syntax [, diparmopts(string asis) EXECute soptions bottom plus SYN
> TAXonly * ]
    - local goptions `options'
    = local goptions level(95)
    - SpliceGlobals junk , `goptions'
    = SpliceGlobals junk , level(95)

```

```

> _____ begin _get_diparmopts.SpliceGlob
> als _____
    - syntax name(id="macro name" name=c_diparm) [, diparm(string asis
> ) Level(cilevel) dof(passthru) syntaxonly ]
    - if ``dof''' == "" & ``e(df_r)''' != "" {
    = if `''' == "" & `''' != "" {
        capture confirm integer number `e(df_r)'
        if !c(rc) {
            local gdof dof(`e(df_r)')
        }
        capture
    }
    - else local gdof ``dof'''
    = else local gdof `'''
    - local glevel `level'
    = local glevel 95
    - local lopt level(`glevel')
    = local lopt level(95)
    - if (``diparm''' == "") exit
    = if (``''' == "") exit

```

```

> _____ end _get_diparmopts.SpliceGlob
> als _____
    - local 0 `", `diparmopts'''
    = local 0 `", ""
    - local diparmopts
    - local k 0
    - syntax [, diparm(string asis) * ]
    - while ``diparm''' != "" {
    = while `''' != "" {
        local ++k
        local single 1
        local after
        capture _on_colon_parse `diparm'
        if !c(rc) {
            local single 0

```



```

local diparm ``s(before)'''
local after ``s(after)'''
}
capture
SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `goptions'
local diparm`k' ``diparm'''
local diparmopts ``diparmopts' : `diparm'''
if `single' | ``:list retok after''' == "" {
local 0 `", `options'''
syntax [, diparm(string asis) * ]
}
else {
local diparm ``after'''
}
}
- if ``soptions''' == "" {
= if `''' == "" {
- syntax [, diparm(string asis) ]
- }
- if ("`execute" == "") {
= if (" == "") {
- sreturn clear
- sreturn local options ``options'''
= sreturn local options `'''
- sreturn local diparm ``diparmopts'''
= sreturn local diparm `'''
- forval i = 1/`k' {
= forval i = 1/0 {
sreturn local diparm`i' ``diparm`i'''''
}
- sreturn local k `k'
= sreturn local k 0
- exit

```

> _____ end _get_diparmo

> pts

```

- local NODIPARM : length local nodiparm
- if `NODIPARM' {
= if 0 {
local options
}
- local GTOPTS parse(":") bind quotes
- local k 0
- if !`NODIPARM' {
= if !0 {
- if ``e(diparm)''' != "" {

```

```

= if `""' != "" {
    local i 0
    local diparm ``e(diparm)''
}
- else if ``e(diparm1)'' != "" {
= else if `""' != "" {
    local i 1
    local diparm ``e(diparm1)''
}
- while `:length local diparm' {
= while 0 {
    gettoken diparm rest : diparm, `GTOPTS'
    while `:length local rest' {
        local ++k
        local diparm`k' : copy local diparm
        gettoken COLON rest : rest, `GTOPTS'
        gettoken diparm rest : rest, `GTOPTS'
    }
    local ++k
    local diparm`k' : copy local diparm
    local ++i
    local diparm ``e(diparm`i)''
}
- }
- if `:length local options' {
= if 0 {
    local 0 `", `options''
    syntax [, diparm(string asis) *]
    if `k' & `:length local diparm' {
        local ++k
        local diparm`k' __sep__
    }
    while `:length local diparm' {
        gettoken diparm rest : diparm, `GTOPTS'
        while `:length local rest' {
            local ++k
            local diparm`k' : copy local diparm
            gettoken COLON rest : rest, `GTOPTS'
            gettoken diparm rest : rest, `GTOPTS'
        }
        local ++k
        local diparm`k' : copy local diparm
        local 0 `", `options''
        syntax [, diparm(string asis) *]
    }
}
}

```

```

- if "`markdown'" != "" {
= if "" != "" {
    local lsize = c(linesize)
    set linesize 255
}
- `vv' mata: _coef_table()
= version 11, missing: mata: _coef_table()
_____
> _____ begin _get_dio
> pts _____
    - version 11
    - syntax namelist(max=2) [, *]
    - gettoken name1 namelist : namelist
    - gettoken name2 namelist : namelist
    - GetDiopts diopts options, `options'
    = GetDiopts diopts options,
    _____
> _____ begin _get_diopts.GetDio
> pts _____
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts'" != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind

```

```

        }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
    }
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels' `nobaselevels'"
    = opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
}

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`omitted' `noomitted'"

```

```

= opts_exclusive " "
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`lstretch' `nolstretch'"
    = opts_exclusive " "
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`cnsreport' `fullcnsreport'"
    = opts_exclusive " "
> _____ begin opts_exclus
> ive _____

```

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`coeflegend' `selegend'"
    = opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    }

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts

```

```

- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive ``coding' `compare'
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive ``versus' `compare'
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {

```



```

= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
- if `n` < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`abbrev` `noabbrev`"
= opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts`
= local opts
    - local n 0
    - while ``opts`` != "" {
= while `""` != "" {
    local ++n
    gettoken item`n` opts : opts, bind
}
    - if `n` < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels` `noallbaselevels`
= local allbaselevels
    - local baselevels `baselevels` `nobaselevels`
= local baselevels
    - local emptycells `emptycells` `noemptycells`
= local emptycells
    - local omitted `omitted` `noomitted`
= local omitted
    - local lstretch `lstretch` `nolstretch`
= local lstretch
    - local fvlabel `fvlabel` `nofvlabel`
= local fvlabel
    - local abbrev `abbrev` `noabbrev`
= local abbrev
    - if "`allbaselevels` `baselevels`" == "" {

```

```

= if "" == "" {
- if c(showbaselevels) == "all" {
    local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
    local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `cformat(`cformat')'
  }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth("`sformat'") > 8 {
      local sformat "%8.2f"
      di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat "`sformat'"
    local sformat `sformat(`sformat')'
  }
}

```

```

- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`"pformat"') > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat `"pformat"'
    local pformat `pformat(pformat)'"'
}
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraupon , `fvwraupon'
= Wraupon ,

```

> _____ begin _get_diopts.Wra

> pon _____

```

- capture syntax [, W0rd WIdth]
- if c(rc) {
    di as err "invalid fvwraupon() option;"
    syntax [, W0rd WIdth]
    exit 198
}
- opts_exclusive "`word' `width'" fvwraupon
= opts_exclusive " " fvwraupon

```

> _____ begin opts_exclus

> ive _____

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while `"opts"' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {

```

```

        - exit
    _____
> _____ end opts_exclus
> ive _____
    - local fvwrapon `word' `width'
    = local fvwrapon
    - if `:length local fvwrapon' {
    = if 0 {
        c_local fvwrapon fvwrapon(`fvwrapon')
    }
    _____
> _____ end _get_diopts.Wra
> pon _____
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
    = c_local diopts
    - if `K' == 2 {
    = if 2 == 2 {
    - c_local `c_opts' ``options''
    = c_local options `''
    - }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95
    _____
> _____ end _get_diopts.GetDio
> pts _____
    - c_local `name1' ``diopts''
    = c_local __00000D `''
    - local snames : s(macros)
    - foreach sname of local snames {
    - local S_`sname' = s(`sname')
    = local S_level = s(level)
    - }
    - local S_`sname' = s(`sname')

```

```

    = local S_k = s(k)
    - }
    - sreturn clear
    - GetDiopts DEFAULT

```

```

> ----- begin _get_diopts.GetDio
> pts -----
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFlegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive "`allbaselevels' `noallbaselevels'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while `"'opts'"' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`allbaselevels' `nobaselevels'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----

```

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`baselevels' `nobaselevels'"
    = opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    }

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "
}

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts

```

```

- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`omitted' `noomitted'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `"' != "" {
  local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}
> ----- end opts_exclus
> ive -----
    - opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "
}
> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts' != "" {
= while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {

```



```

        - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive ``coeflegend' `selegend'
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive ``noci' `nopvalues'
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____

```

```

- local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive ``coding' `compare'
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive ``versus' `compare'
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ```opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
- opts_exclusive ``abbrev' `noabbrev'
= opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `'' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

> ----- end opts_exclus
> ive -----
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels
    - local baselevels `baselevels' `nobaselevels'
    = local baselevels
    - local emptycells `emptycells' `noemptycells'
    = local emptycells
    - local omitted `omitted' `noomitted'
    = local omitted
    - local lstretch `lstretch' `nolstretch'
    = local lstretch
    - local fvlabel `fvlabel' `nofvlabel'
    = local fvlabel
    - local abbrev `abbrev' `noabbrev'
    = local abbrev
    - if "`allbaselevels'`baselevels'" == "" {
    = if "" == "" {
    - if c(showbaselevels) == "all" {
        local allbaselevels allbaselevels
    }
    - else if c(showbaselevels) == "on" {
        local baselevels baselevels
    }
    - }
    - if "`emptycells'" == "" {
    = if "" == "" {
    - if c(showemptycells) == "off" {
        local emptycells noemptycells

```

```

    }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
      di "{txt}note: invalid cformat(), using default"
    }
    sreturn local cformat "`cformat'"
    local cformat `cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth("`sformat'") > 8 {
      local sformat "%8.2f"
      di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat "`sformat'"
    local sformat `sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth("`pformat'") > 5 {
      local pformat "%5.3f"
      di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat "`pformat'"
    local pformat `pformat(`pformat')"'
  }
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {

```

```

        syntax namelist(max=2) [, `DIOPTS']
    }
    - if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
        local levelopt level(`level')
    }
    - Wraupon , `fvwraupon'
= Wraupon ,

> _____ begin _get_diopts.Wra
> pon _____
        - capture syntax [, W0rd WIdth]
        - if c(rc) {
            di as err "invalid fvwraupon() option;"
            syntax [, W0rd WIdth]
            exit 198
        }
        - opts_exclusive "`word' `width'" fvwraupon
= opts_exclusive " " fvwraupon

> _____ begin opts_exclus
> ive _____
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
= local opts
        - local n 0
        - while ``opts' != "" {
= while `"' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
        }
        - if `n' < 2 {
= if 0 < 2 {
            - exit

> _____ end opts_exclus
> ive _____
        - local fvwraupon `word' `width'
= local fvwraupon
        - if `:length local fvwraupon' {
= if 0 {
            c_local fvwraupon fvwraupon(`fvwraupon')
        }

> _____ end _get_diopts.Wra

```

```

> pon
    - if "`fvwrap'" != "" {
    = if "" != "" {
        FVWrap, `fvwrap'
    }
    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
    = c_local DEFAULT
    - if `K' == 2 {
    = if 1 == 2 {
        c_local `c_opts' ``options''
    }
    - sreturn local coding `coding'
    = sreturn local coding
    - sreturn local versus `versus'
    = sreturn local versus
    - sreturn local compare `compare'
    = sreturn local compare
    - sreturn local level `level'
    = sreturn local level 95

> _____ end _get_diopts.GetDio
> pts
    - if ``name2'' == "" {
    = if ``' == "" {
    - GetDiopts DUPS, `options'
    = GetDiopts DUPS,

> _____ begin _get_diopts.GetDio
> pts
    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAP0
> N(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
    - syntax namelist(max=2) [, `DIOPTS' *]
    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABEL FVLABEL NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
    - opts_exclusive ``allbaselevels' `noallbaselevels''

```

```

= opts_exclusive " "
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`allbaselevels' `nbaselevels'"
    = opts_exclusive " "
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`baselevels' `nbaselevels'"
    = opts_exclusive " "
> _____ begin opts_exclus
> ive _____

```

```

- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`emptycells' `noemptycells'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ``opts' != "" {
    = while `"' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit

```

```

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`fvlabel' `nofvlabel'"
    = opts_exclusive " "

```

```

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts

```



```

- local n 0
- while ``opts'' != "" {
= while `'' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`omitted' `noomitted'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit
}

> ----- end opts_exclus
> ive -----
- opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts'' != "" {
= while `'' != "" {
  local ++n

```

```

        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'` != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {
    - exit
}

> ----- end opts_exclus
> ive -----
    - opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "

> ----- begin opts_exclus
> ive -----
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
= local opts
    - local n 0
    - while ```opts'` != "" {
= while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
= if 0 < 2 {

```

```

        - exit
    _____
> _____ end opts_exclus
> ive _____
    - opts_exclusive "`noci' `nopvalues'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____
> _____ end opts_exclus
> ive _____
    - local K : list sizeof namelist
    - gettoken c_diopts c_opts : namelist
    - opts_exclusive "`coding' `compare'"
    = opts_exclusive " "
    _____
> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while ```opts'`` != "" {
    = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

```

```

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`versus' `compare'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while `""opts'" != "" {
    = while `"" != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - opts_exclusive "`abbrev' `noabbrev'"
    = opts_exclusive " "
    _____

> _____ begin opts_exclus
> ive _____
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    - local n 0
    - while `""opts'" != "" {
    = while `"" != "" {
        local ++n
        gettoken item`n' opts : opts, bind
    }
    - if `n' < 2 {
    = if 0 < 2 {
    - exit
    _____

> _____ end opts_exclus
> ive _____
    - local allbaselevels `allbaselevels' `noallbaselevels'
    = local allbaselevels

```

```

- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
    local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
    local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
    local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
    local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
    local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
    confirm numeric format `cformat'
    if fmtwidth("`cformat'") > 9 {
      local cformat "%9.0g"
    }
    di "{txt}note: invalid cformat(), using default"
  }
}

```

```

    sreturn local cformat ``cformat'''
    local cformat `cformat(`cformat')''
}
- if `:length local sformat' {
= if 0 {
    confirm numeric format `sformat'
    if fmtwidth(`sformat') > 8 {
        local sformat "%8.2f"
        di "{txt}note: invalid sformat(), using default"
    }
    sreturn local sformat ``sformat'''
    local sformat `sformat(`sformat')''
}
- if `:length local pformat' {
= if 0 {
    confirm numeric format `pformat'
    if fmtwidth(`pformat') > 5 {
        local pformat "%5.3f"
        di "{txt}note: invalid pformat(), using default"
    }
    sreturn local pformat ``pformat'''
    local pformat `pformat(`pformat')''
}
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
    syntax namelist(max=2) [, `DIOPTS']
}
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
    local levelopt level(`level')
}
- Wraon , `fvwraon'
= Wraon ,

```

> _____ begin _get_diopts.Wra

> pon

```

    - capture syntax [, W0rd WIdth]
    - if c(rc) {
        di as err "invalid fvwraon() option;"
        syntax [, W0rd WIdth]
        exit 198
    }
    - opts_exclusive ``word' `width'" fvwraon
= opts_exclusive " " fvwraon

```

> _____ begin opts_exclus

```

> ive
- version 8.2
- args opts optname errcode optslab
- local opts `opts'
= local opts
- local n 0
- while ``opts' != "" {
= while `"' != "" {
  local ++n
  gettoken item`n' opts : opts, bind
}
- if `n' < 2 {
= if 0 < 2 {
- exit

> ----- end opts_exclus
> ive
- local fwwrapon `word' `width'
= local fwwrapon
- if `:length local fwwrapon' {
= if 0 {
  c_local fwwrapon fwwrapon(`fwwrapon')
}

> ----- end _get_diopts.Wra
> pon
- if "`fwwrap'" != "" {
= if "" != "" {
  FWWrap, `fwwrap'
}
- c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fwwrapon' `fvlabel' `nocl' `nopvalues' `markdown' `citype' `abbrev'
= c_local DUPS
- if `K' == 2 {
= if 1 == 2 {
  c_local `c_opts' ``options'
}
- sreturn local coding `coding'
= sreturn local coding
- sreturn local versus `versus'
= sreturn local versus
- sreturn local compare `compare'
= sreturn local compare
- sreturn local level `level'

```

```

= sreturn local level 95
> ----- end _get_diopts.GetDio
> pts
- }
- else {
  GetDiopts DUPS options, `options'
  c_local `name2' ``options'
}
- local DUPS : list DUPS - DEFAULT
- gettoken DUPS : DUPS
- if ``DUPS' != "" {
= if `'' != "" {
  if (strpos(`DUPS', "(")) {
    gettoken DUPS : DUPS, parse("(")
    local DUPS `DUPS'()'
  }
  di as err "duplicate {bf:`DUPS'} option not allowed"
  exit 198
}
- sreturn clear
- foreach sname of local snames {
- sreturn local `sname' = ``S_`sname'
= sreturn local level = `95'
- }
- sreturn local `sname' = ``S_`sname'
= sreturn local k = `0'
- }
> ----- end _get_dio
> pts
> -----
> -----
piq_timing_max | Coefficient   Robust      z    P>|z|    [95% conf. int
> erval]
> -----
rule_g | .2047054   .175079   1.17   0.242   -.1384432   .5
> 478539
rule_itr | .0446157   .1651534   0.27   0.787   -.2790791   .3
> 683104
estimated | 1.088681   .1641623   6.63   0.000   .7669292   1.
> 410434
stky_wg#wg_ndx |

```


| | | | | | | | |
|--------------------|-------|-------------|----------|-------|-------|-----------|----|
| | 0 1 | 0 (empty) | | | | | |
| | 1 0 | .1038877 | .1612021 | 0.64 | 0.519 | -.2120626 | .4 |
| > 198379 | | | | | | | |
| | 1 1 | -.2491303 | .2122872 | -1.17 | 0.241 | -.6652056 | . |
| > 166945 | | | | | | | |
| stky_wg#not_wg_ndx | | | | | | | |
| | 0 0 | 0 (empty) | | | | | |
| | 0 1 | 0 (omitted) | | | | | |
| | 1 0 | 0 (omitted) | | | | | |
| | 1 1 | 0 (omitted) | | | | | |
| | _cons | .1354278 | .1220905 | 1.11 | 0.267 | -.1038653 | .3 |
| > 747208 | | | | | | | |

```

> -----
- if "`markdown'" != "" {
= if "" != "" {
  set linesize `lsize'
}
- if "`eqselect'" == "" & "`eformnote'" != "noeformnote" {
= if "" == "" & "" != "noeformnote" {
- if "`eformdi'" != "" & ("`e(cmd)'" != "gnbreg" | "`e(prefix)'" == "svy")
> {
= if `""' != "" & ("glm" != "gnbreg" | "" == "svy") {
  local k_eform `r(k_eform)'
  if ("`k_eform'" == "") {
    local k_eform = 1
  }
  local k_eq `e(k_eq)'
  if ("`k_eq'" == "") {
    local k_eq = 1
  }
  if (`k_eform' < `k_eq' & `k_eform') {
    if ("`e(cmd2)'" == "stintreg" | "`e(cmd2)'" == "streg") & ("`e(cmd)'"
> " == "weibull" | "`e(cmd)'" == "gompertz") {
    }
    else {
      _eform_multeq_note efnote : `k_eform' ``tr_item'''
      di as txt "`efnote'"
    }
  }
}
- if ("``eformdi'" != "" & "`e(noconstant)'" == "0" & ``eform_cons_ti'''
> != "" & "`e(consonly)'" != "1") {
= if (`""' != "" & "0" == "0" & ``""' != "" & "0" != "1") {

```

```

        if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cmd)'"=="c
> mmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
    local asvar = "`e(ranvars)``e(fixvars)``e(indvars)'" != ""
    if "`e(casevars)'" != "" & `asvar' {
        local note1 "Exponentiated coefficients represent odds ratios for "
        local note2 "alternative-specific variables (first equation) and "
        local note3 "{help j_cmrisk###|_new:relative-risk ratios} "
        local note4 "for case-specific variables."
        di as txt "{p 0 6 2}Note: `note1``note2``note3``note4'{p_end}"
    }
    }
    if "`eform_cons_ti'" == "Inc. rate" {
        local eform_cons_note "incidence rate"
    }
    else if "`eform_cons_ti'" == "Rel. risk" {
        local eform_cons_note "relative risk"
    }
    else if "`eform_cons_ti'" == "Health" {
        local eform_cons_note "health (probability of no disease)"
    }
    else {
        local eform_cons_note = strlower("`eform_cons_ti'")
    }
    local eform_cons_note "baseline `eform_cons_note'"
    if ("`e(cmd2)'"=="") {
        local cmd `e(cmd)'
    }
    else {
        local cmd `e(cmd2)'
    }
    local f2 = udsustr("`cmd'",1,2)
    local is_re = ("`f2'"=="xt" | "`f2'"=="me")
    if `is_re' {
        local extranote " (conditional on zero random effects)"
    }
    di as txt "{p 0 6 2}Note: {bf:_cons} estimates " "`eform_cons_note``
> extranote'" _c
    if ("`e(cmd)'"=="mlogit" | "`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmc
> logit" | "`e(cmd)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
        di as txt " for each outcome" _c
    }
    di as txt ".{p_end}"
    }
- }
- return add
- if !`keepmc' {

```

```

= if !0 {
- return local mcmethod
- return local mctitle
- }



---


> ----- end _coef_ta
> ble -----
- if "`e(msg)'" != "" {
= if "" != "" {
noi di as txt "(Standard errors scaled using `e(msg)'.)"
}
- if "`e(msg2)'" != "" {
= if "" != "" {
noi di as txt "`e(msg2)'."
}
- if "`e(adm_warn)'" != "" {
= if "" != "" {
noi di "{help j_glmadmiss##|_new:Warning: Parameter estimates produce
> }" _c
noi di "{help j_glmadmiss##|_new:inadmissible mean estimates in one or
> }"
noi di "{help j_glmadmiss##|_new:          more observations.}"
}
- if "`e(Nf)'" != "" {
= if "" != "" {
if `e(Nf)' > 1 { local s "s" }
noi di as txt "(" as res `e(Nf)' as txt " model`s' failed to converge)
> "
}
- if `e(nbml)' {
= if 0 {
di as txt "{p 0 6 0 79}Note: Negative binomial "
di as txt "parameter estimated via ML and treated "
di as txt "as fixed once estimated."
}
- _prefix_footnote



---


> ----- begin _prefix_footn
> ote -----
- version 9
- local is_st = "`e(cmd2)'" == "streg"
= local is_st = "" == "streg"
- if `is_st' {
= if 0 {
local tropt TR
}

```

```

- syntax [, deff `tropt' linesize(int 79) * ]
= syntax [, deff linesize(int 79) * ]
- if `is_st' & ``e(noeform)'' != "" & ``tr'' != "" {
= if 0 & ``'' != "" & ``'' != "" {
    di as smcl as txt "{p 0 6 2}" "Note: Option {res:tr} ignored; " "not
> appropriate with option {res:strata()} or {res:ancillary()}." "{p_end}"
    }
- local footnote ``e(footnote)''
= local footnote ``''
- gettoken cmd args : footnote, parse(" ,")
- capture which `cmd'
= capture which
- if !c(rc) {
    if `:length local options' {
        `footnote' , `options'
    }
    else {
        `footnote'
    }
}
- capture
- if ``e(prefix)'' == "svy" {
= if "" == "svy" {
    _svy_fpc_note ``deff'' `linesize'
    _svy_subpop_note, linesize(`linesize')
    _svy_singleton_note, linesize(`linesize')
}
- if inlist(`e(cmd)'',"logit","logistic","probit") {
= if inlist(`glm',"logit","logistic","probit") {
    CompleteLogit
}
- if inlist(`e(cmd)'',"mlogit","ologit","oprobit") {
= if inlist(`glm',"mlogit","ologit","oprobit") {
    CompleteOlogit
}
- if ``e(missing)'' == "missing" & inlist(`e(vce)'',"brr", "bootstra
> p", "jackknife") {
    = if "" == "missing" & inlist("robust", "brr", "bootstrap", "jackknife
> ") {
        if ``e(vce)'' == "brr" {
            local vcetype BRR
        }
        else local vcetype `e(vce)'
        if e(N_misreps) == 1 {
            local reps replicate
        }
    }
}

```

```

else {
  local reps replicates
}
if "`e(N_misreps)'" != "" {
  local the `e(N_misreps)'
}
else local the "some of the"
di as txt "{p 0 6 0 `linesize'}" "Note: One or more parameters could
> not be estimated in " "`the' `vcetype' `reps'; " "standard-error estimates
> include only complete replications.{p_end}"
}
- if inlist("`e(opt)'", "ml", "moptimize") | !missing(e(converged))
> {
= if inlist("moptimize", "ml", "moptimize") | !missing(e(converged))
> {
- ml_footnote
_____
> _____ begin ml_footn
> ote _____
- version 9
- syntax
- _check_e_rc
_____
> _____ begin _check_e
> _rc _____
- version 11
- syntax [, ignorerc]
- if e(rc) == 504 & inlist("`e(opt)'", "ml", "moptimize") {
= if e(rc) == 504 & inlist("moptimize", "ml", "moptimize") {
di as err "{p 0 0 2}variance matrix missing because `e(user)' fa
> iled" "to compute scores or computed scores with missing values{p_end}"
exit 504
}
- if (`"ignorerc"'=="" & !missing(e(rc)) & e(rc) != 0) error e(r
> c)
= if (`"'=="" & !missing(e(rc)) & e(rc) != 0) error e(rc)
_____
> _____ end _check_e
> _rc _____
- if "`e(converged)'" == "0" {
= if "`1'" == "0" {
di as txt "Warning: Convergence not achieved."
}
_____
> _____ end ml_footn
> ote _____

```

```

- }
- _check_e_rc
_____
> _____ begin _check_e
> _rc _____
- version 11
- syntax [, ignorerc]
- if e(rc) == 504 & inlist("`e(opt)'", "ml", "moptimize") {
= if e(rc) == 504 & inlist("moptimize", "ml", "moptimize") {
di as err "{p 0 0 2}variance matrix missing because `e(user)' fail
> ed" "to compute scores or computed scores with missing values{p_end}"
exit 504
}
- if (`""ignorerc""'=="" & !missing(e(rc)) & e(rc) != 0) error e(rc)
= if (`""'=="" & !missing(e(rc)) & e(rc) != 0) error e(rc)
_____
> _____ end _check_e
> _rc _____
_____
> _____ end _prefix_footn
> ote _____
_____
> _____ end glm.Disp
> lay _____
- }
- error `e(rc)'
= error 0
_____
> _____ end glm.gl
> m_7 _____
- if _rc {
if "$SGLM_running" ~= "" & "$SGLM_nonstan" ~= "" {
di as err "data not suitable for nonstandard family-link combination"
mac drop SGLM_*
exit 459
}
else {
mac drop SGLM_*
exit _rc
}
}
- version 10: ereturn local cmdline `"glm `0'"
= version 10: ereturn local cmdline `"glm piq_timing_max rule_g rule_itr est
> imated i.stky_wg#i.wg_ndx i.stky_wg#i.not_wg_ndx if piq_timing_max < 99 , f
> amily(nbinomial) link(log) vce(robust) nolog"
- if "$SGLM_running" == "" & "$SGLM_nonstan" == "" {

```

```
= if "" == "" & "" == "" {  
- mac drop SGLM_*  
- }  
  
_____  
> _____ end  
> glm _____  
- log close  
    name: <unnamed>  
    log: /Users/connorbrennan/Library/CloudStorage/OneDrive-TheUniversityo  
> fChicago/mmb/output/stepwise_regressions/piq_timing_max_nomrig.smcl  
    log type: smcl  
closed on: 12 Sep 2025, 19:25:29  
_____
```