

**estat recovariance** — Display estimated random-effects covariance matrices

[Description](#)

[Menu for estat](#)

[Syntax](#)

[Options](#)

[Remarks and examples](#)

[Stored results](#)

[Also see](#)

## Description

`estat recovariance` is for use after estimation with `menl` and `mixed`.

`estat recovariance` displays the estimated variance–covariance matrix of the random effects for each level in the model.

## Menu for estat

Statistics > Postestimation

## Syntax

```
estat recovariance [ , relevel(levelvar) correlation matlist_options ]
```

`collect` is allowed; see [\[U\] 11.1.10 Prefix commands](#).

## Options

`relevel(levelvar)` specifies the level in the model for which the random-effects covariance matrix is to be displayed. By default, the covariance matrices for all levels in the model are displayed. *levelvar* is the name of the model level and is either the name of the variable describing the grouping at that level or is `_all`, a special designation for a group comprising all the estimation data. The `_all` designation is not supported with `menl`.

`correlation` displays the covariance matrix as a correlation matrix.

*matlist\_options* are style and formatting options that control how the matrix (or matrices) is displayed; see [\[P\] matlist](#) for a list of options that are available.

## Remarks and examples

stata.com

For `menl`, the rows and columns of the matrix are labeled with [full random-effects names](#) as they are defined in the model.

For other commands, the rows and columns of the matrix are labeled as `_cons` for the random intercepts; for random coefficients, the label is the name of the associated variable in the data.

See [example 1](#) in [\[ME\] mixed postestimation](#).

## Stored results

`estat recovariance` stores the following in `r()`:

Scalars

`r(relevels)`                    number of levels

Matrices

`r(Cov#)`                        level-# random-effects covariance matrix

`r(Corr#)`                    level-# random-effects correlation matrix (if option `correlation` was specified)

For a  $G$ -level nested model, # can be any integer between 2 and  $G$ .

## Also see

[ME] **menl** — Nonlinear mixed-effects regression

[ME] **mixed** — Multilevel mixed-effects linear regression

[U] **20 Estimation and postestimation commands**

Stata, Stata Press, and Mata are registered trademarks of StataCorp LLC. Stata and Stata Press are registered trademarks with the World Intellectual Property Organization of the United Nations. Other brand and product names are registered trademarks or trademarks of their respective companies. Copyright © 1985–2023 StataCorp LLC, College Station, TX, USA. All rights reserved.

