

## 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

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](#)

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