# Title



**mi select** — Programmer's alternative to mi extract



# Description

`mi select` is a programmer's command. It is a faster, more dangerous version of `mi extract`; see [MI] **mi extract**. Before using `mi select`, the `mi` data must be preserved; see [P] **preserve**.

`mi select init` initializes `mi select #` and must be used before the first call to `mi select #`.

`mi select #` replaces the data in memory with a copy of the data for $m = \#$. The data are not `mi set`.

# Syntax

```
mi select init [, fast]

mi select #
```

where $0 \leq \# \leq M$, and where typical usage is

```
quietly mi query
local M = r(M)
preserve
mi select init
local priorcmd "`r(priorcmd)'"
forvalues m=1(1)`M' {
        mi select `m'
        ...
        `priorcmd'
}
restore
```

`collect` is allowed; see [U] **11.1.10 Prefix commands**.

# Option

`fast`, specified with `mi select init`, specifies that the data delivered by `mi select #` commands not be changed except for sort order. Then `mi select` can operate more quickly. `fast` is allowed with all styles but currently affects the performance with the wide style only.

If `fast` is not specified, the data delivered by `mi select #` may be modified freely before the next `mi select #` call. However, the data may not be dropped. `mi select` uses characteristics (see [P] **char**) stored in `_dta[]` to know its state.

## Remarks and examples

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The two `mi select` commands work in tandem. `mi select init` initializes `mi select #`.

`mi select init` returns macro `r(priorcmd)`, which you are to issue as a command between each `mi select #` call. `r(priorcmd)` is not required to be issued before the first call to `mi select #`, although you may issue it if that is convenient. `mi select #` calls can be made in any order, and the same $m$ may be selected repeatedly.

The data delivered by `mi select #` differ from those delivered by `mi extract` in that there may be extra variables in the dataset. One of the extra variables, `_mi_id`, is a unique observation identifier.

If you want to post changes made in the selected data back to the `mi` data, you can write a file containing `mi_id` and the updated variables and then use `_mi_id` to match that to the `mi` data after your final `restore`. By default, changes to the selected data will not be posted back to the underlying `mi` data.

In the case of wide data, the `mi` data have no `_mi_id` variable. `_mi_id` in the selected data is reflected in the current order of the `mi` data.

## Stored results

`mi select init` returns the following in `r()`:

Macros

`r(priorcmd)` command to be issued prior to calling `mi select #`; this command will be either `restore`, `preserve` or nothing

## Also see

[MI] **Intro** — Introduction to mi

[MI] **mi extract** — Extract original or imputed data from mi data

[MI] **Technical** — Details for programmers