<div style="border:1px solid black; padding:10px">

**recast** — Change storage type of variable

</div>

## Description

recast changes the storage type of variables.

## Quick start

Recast numeric variable v1 to type double from any other numeric type

    recast double v1

Recast string variable v2 to str30 from any length less than 30

    recast str30 v2

Same as above, but for length longer than 30

    recast str30 v2, force

## Syntax

    recast *type varlist* [ , force ]

Variables in *varlist* are changed to *type*, where *type* is byte, int, long, float, double, str1, str2, ..., str2045, or strL. Alias variables in *varlist* are changed to *type* copies of the linked variables.

## Option

force makes recast unsafe by causing the variables to be given the new storage type even if that will cause a loss of precision, introduction of missing values, or, for string variables, the truncation of strings.

force should be used with caution. force is for those instances where you have a variable saved as a double but would now be satisfied to have the variable stored as a float, even though that would lead to a slight rounding of its values.

## Remarks and examples

See [U] **12 Data** for a description of storage types. Also see [D] **compress**, [D] **destring**, and [D] **frunalias** for alternatives to recast.

Note that recast is not a command to change, or to map, string variables to numeric variables or numeric variables to string variables. For that, one of encode, decode, destring, or tostring is likely to be appropriate.

## ▷ Example 1

recast refuses to change a variable's type if that change is inappropriate for the values actually stored, so it is always safe to try:

```
. use https://www.stata-press.com/data/r19/auto
(1978 automobile data)
. describe headroom
```

| Variable name | Storage type | Display format | Value label | Variable label |
|---|---|---|---|---|
| headroom | float | %6.1f | | Headroom (in.) |

```
. recast int headroom
headroom:  37 values would be changed; not changed
```

Our attempt to change headroom from a float to an int was ignored—if the change had been made, 37 values would have changed. Here is an example where the type can be changed:

```
. describe mpg
```

| Variable name | Storage type | Display format | Value label | Variable label |
|---|---|---|---|---|
| mpg | int | %8.0g | | Mileage (mpg) |

```
. recast byte mpg
. describe mpg
```

| Variable name | Storage type | Display format | Value label | Variable label |
|---|---|---|---|---|
| mpg | byte | %8.0g | | Mileage (mpg) |

recast works with string variables as well as numeric variables, and it provides all the same protections:

```
. describe make
```

| Variable name | Storage type | Display format | Value label | Variable label |
|---|---|---|---|---|
| make | str18 | %-18s | | Make and model |

```
. recast str16 make
make:  2 values would be changed; not changed
```

recast can be used both to promote and to demote variables:

```
. recast str20 make
. describe make
```

| Variable name | Storage type | Display format | Value label | Variable label |
|---|---|---|---|---|
| make | str20 | %-20s | | Make and model |

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# Also see

[D] **compress** — Compress data in memory

[D] **destring** — Convert string variables to numeric variables and vice versa

[D] **frunalias** — Change storage type of alias variables

[U] **12.2.2 Numeric storage types**

[U] **12.4 Strings**