

**recast** — Change storage type of variable

Description	Quick start	Syntax	Option
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## 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

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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/r18/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

## 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**

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