**Title**

**Syntax**

recast type varlist [, force]

where type is byte, int, long, float, double, str1, str2, ..., str2045, or strL.

**Description**

recast changes the storage type of the variables identified in varlist to type.

**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 and [D] destring for alternatives to recast.

➤ **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 http://www.stata-press.com/data/r13/auto
    (1978 Automobile Data)
. describe headroom
    storage display value
    variable name type format 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
    storage display value
    variable name type format label variable label
    mpg        int    %8.0g Mileage (mpg)
```
. recast byte mpg
. describe mpg

<table>
<thead>
<tr>
<th>variable name</th>
<th>type</th>
<th>format</th>
<th>label</th>
<th>variable label</th>
</tr>
</thead>
<tbody>
<tr>
<td>mpg</td>
<td>byte</td>
<td>%8.0g</td>
<td>Mileage (mpg)</td>
<td></td>
</tr>
</tbody>
</table>

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

. describe make

<table>
<thead>
<tr>
<th>variable name</th>
<th>type</th>
<th>format</th>
<th>label</th>
<th>variable label</th>
</tr>
</thead>
<tbody>
<tr>
<td>make</td>
<td>str18</td>
<td>%-18s</td>
<td>Make and Model</td>
<td></td>
</tr>
</tbody>
</table>

. 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

<table>
<thead>
<tr>
<th>variable name</th>
<th>type</th>
<th>format</th>
<th>label</th>
<th>variable label</th>
</tr>
</thead>
<tbody>
<tr>
<td>make</td>
<td>str20</td>
<td>%-20s</td>
<td>Make and Model</td>
<td></td>
</tr>
</tbody>
</table>

Also see
[D] compress — Compress data in memory
[D] destring — Convert string variables to numeric variables and vice versa
[U] 12.2.2 Numeric storage types
[U] 12.4 Strings