

**spcompress** — Compress Stata-format shapefile[Description](#)  
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## Description

`spcompress` creates a new Stata-format shapefile omitting places (geographical units) that do not appear in the `Sp` data in memory. The new shapefile will be named after the data in memory.

## Quick start

```
Create new file new_shp.dta containing only cases identified by mysample from old_shp.dta
use old
keep if mysample
save new
spcompress
```

## Menu

Statistics > Spatial autoregressive models

## Syntax

```
spcompress [ , force ]
```

`collect` is allowed; see [\[U\] 11.1.10 Prefix commands](#).

## Option

`force` allows replacing an existing shapefile. `force` is the option name StataCorp uses when you should think twice before specifying it. In most cases, you want to create a new shapefile.

## Remarks and examples

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Remarks are presented under the following headings:

[Introduction](#)

[Using the force option](#)

### Introduction

In [SP] [Intro 4](#) and [SP] [Intro 7](#), we discussed how to find and prepare the analysis dataset, `tl_2016_us_county.dta`, and the shapefile dataset, `tl_2016_us_county_shp.dta`. We again use those datasets here.

You sometimes want to analyze a subset of the data. In those cases, you might type

```
. use tl_2016_us_county          // use all the data
. keep if STATEFP == "48"      // keep the subset of interest
. save texas                    // save under a different name
```

All will work fine. File `texas.dta` is linked to `tl_2016_us_county_shp.dta`, which contains a lot of unnecessary information, but that will cause Sp no difficulty.

Next, you can type

```
. spcompress
```

Now, files `tl_2016_us_county.dta` and `tl_2016_us_county_shp.dta` remain unchanged, and file `texas_shp.dta` was created. `texas.dta` was resaved so that the copy on disk would reflect that it is now linked to `texas_shp.dta` instead of `tl_2016_us_county_shp.dta`.

Sp will run a little faster if we compress the shapefile. We say a little because only [grmap](#) will run faster.

### Using the force option

Above, we showed an example. Here is what would have happened had we omitted the line `save texas`:

```
. use tl_2016_us_county
. keep if STATEFP == "48"
(2,979 observations deleted)
. * save texas                // save texas intentionally commented out
. spcompress
file tl_2016_us_county_shp.dta already exists
r(602);
```

Whether you type `save texas` makes all the difference. Do you really want to replace `tl_2016_us_county_shp.dta`? If so, specify `force`.

The option is called `force` because Stata wonders whether you really meant to type

```
. use tl_2016_us_county, clear
. keep if STATEFP == "48"
(2,979 observations deleted)
. save texas
file texas.dta saved
. spcompress
(texas_shp.dta created with 254 spatial units, 2,979 fewer than previously)
(texas_shp.dta saved)
(texas.dta saved)
```

Even if you intended to discard all but Texas from `tl_2016_us_county.dta` and `tl_2016_us_county_shp.dta`, we would recommend that you type

```
. use tl_2016_us_county
. keep if STATEFP == "48"
. save texas
. spcompress
. erase tl_2016_us_county.dta
. erase tl_2016_us_county_shp.dta
```

## Stored results

`spcompress` stores the following in `r()`:

Scalars

<code>r(num_drop_ids)</code>	# of spatial units dropped
<code>r(num_ids)</code>	# of spatial units remaining

## Also see

[SP] [Intro](#) — Introduction to spatial data and SAR models

[D] [compress](#) — Compress data in memory