

**spmatrix drop** — List and delete weighting matrices stored in memory

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## Description

`spmatrix dir` lists the Sp weighting matrices stored in memory.

`spmatrix drop` deletes a single Sp matrix from memory.

`spmatrix clear` deletes all Sp matrices from memory.

## Quick start

List weighting matrices stored in memory

```
spmatrix dir
```

Drop weighting matrix `Wd`

```
spmatrix drop Wd
```

Drop all weighting matrices

```
spmatrix clear
```

## Menu

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## Syntax

*List the Sp weighting matrices stored in memory*

```
spmatrix dir
```

*Drop an Sp matrix from memory*

```
spmatrix drop spmatname
```

*Drop all weighting matrices from memory*

```
spmatrix clear
```

*spmatname* is the name of an Sp weighting matrix stored in memory.

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

## Remarks and examples

Remarks are presented under the following headings:

*spmatrix dir*  
*Save and drop matrices you are not using*

### spmatrix dir

The spatial weighting matrices that you create are stored in memory. You create them with the following commands:

```
spmatrix create
spmatrix import
spmatrix fromdata
spmatrix userdefined
spmatrix spfrommata
```

`spmatrix dir` lists spatial weighting matrices names:

```
. spmatrix dir
```

Weighting matrix name	N x N	Type	Normalization
Wc	254 x 254	contiguity	spectral
Wd	254 x 254	idistance	spectral

When `spmatrix dir` reports that a matrix is a contiguity matrix, as it does with `Wc`, contiguity is used in its *ex post* sense. See [\[SP\] \*\*spmatrix summarize\*\*](#) or the [\[SP\] \*\*Glossary\*\*](#) for the definition of *ex post* contiguity matrices.

### Save and drop matrices you are not using

Spatial weighting matrices are stored in memory, and they can consume a lot of it. The ones above consume a mere  $254 \times 254 = 517128$  bytes each. Had the matrices been  $3000 \times 3000$ , they would have consumed 69 megabytes each.

Spatial weighting matrices can be saved on disk. Any that you are not currently using, you can save to disk and drop from memory:

```
. spmatrix save Wc using wc
(matrix Wc saved in file wc.stswm)
. spmatrix drop Wc
```

All spatial weighting matrices are dropped when you type

```
. spmatrix clear
```

or

```
. clear mata
```

or

```
. clear all
```

The `clear mata` command also clears any Mata functions or objects in memory. The `clear all` command also clears any data in memory.

## Stored results

`spmatrix dir` stores the following in `r()`:

Macros  
`r(names)`                      space-separated list of matrix names

## Also see

[SP] [spmatrix](#) — Categorical guide to the `spmatrix` command

[SP] [spmatrix summarize](#) — Summarize weighting matrix stored in memory

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

[D] [clear](#) — Clear memory

*Mata Reference Manual*

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