



# isaves: Incremental Saves and Selective Load of Objects into the Workspace

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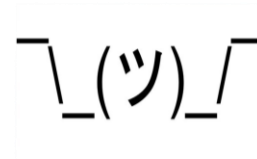
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# IS THIS PACKAGE FOR YOU?

If you never save your workspace (Global environment)



If your workspace is easily manageable



If your workspaces are complex and complicated



- Large objects
- Many objects
- Large computing times for creating some objects
- Different versions or modifications of the same object

# WHAT DOES THE PACKAGE DO?

- Incremental and/or selective saves of the workspace
- Selectively load objects into the workspace
- Lazy loading of objects into the workspace
- Keep track of details of each saved object
- Save, and allow to restore, different versions of the "same" object.

# HOW DOES IT WORK?

## 1. First execution of `save_incremental()`

- └─ Saves all objects to files on disk
- └─ Records information in a data table (reference table)

## 2. Subsequent executions of `save_incremental()`

- └─ Checks each object in the reference table:
  - └─ If the object is already registered → Does not save again
  - └─ If the object is not registered → Saves it to disk and registers it

## 3. `load_incremental()` loads saved objects from disk according to ref. table

# STRUCTURE OF THE REFERENCE TABLE

Objects are identified by their hash

|   | object  | class      | size    | date       |          | hash                             | comment       | user   | annotation |
|---|---------|------------|---------|------------|----------|----------------------------------|---------------|--------|------------|
| 1 | datos   | data.frame | 58240   | 2024-05-31 | 11:45:15 | f37f3cb60a929b5b8d465dcd4f2132c8 | <NA>          | aghila | NA         |
| 2 | mod1    | clm        | 53032   | 2024-05-31 | 11:45:15 | 7dcbcd8654f29a6a95bca23301135216 | <NA>          | aghila | NA         |
| 3 | mod2    | brmsfit    | 2241344 | 2024-05-31 | 11:45:15 | 02aef4d696bacb77fd5eedbd683e993a | <NA>          | aghila | NA         |
| 4 | mod1    | clm        | 62720   | 2024-05-31 | 12:02:53 | 95061387199fe63cf435dee0db389365 | <NA>          | aghila | NA         |
| 5 | mod2    | brmsfit    | 1419480 | 2024-05-31 | 12:02:53 | 1ef9943665dad4d114069e278348eff5 | <NA>          | aghila | NA         |
| 6 | datos   | data.frame | 16352   | 2024-11-06 | 00:28:01 | 31a9aa1288899ad7643a1af669fa3b94 | Original data | aghila | NA         |
| 7 | datos_f | data.frame | 24992   | 2024-11-06 | 00:28:01 | f5b2cb4c102d9e870e6e067950afec2f | Cleaned data  | aghila | NA         |

`load_incremental()` has a *subset* argument for loading objects selectively

```
load_incremental(class == "data.frame")
```

```
load_incremental(date > as.POSIXct("2024-11-01"))
```

# EXAMPLE

Install package:

```
remotes::install_github("David-hervas/isaves")
```

Code at: [https://github.com/David-Hervas/R\\_Sevilla/](https://github.com/David-Hervas/R_Sevilla/)

```
* @var boolean
*/
define('PSI_INTERNAL_XML', false);
if (version_compare("5.2", PHP_VERSION, ">")) {
    die("PHP 5.2 or greater is required!!!");
}
if (!extension_loaded("pcre")) {
    die("phpSysInfo requires the pcre extension to php in order to work properly.");
}

require_once APP_ROOT.'/includes/autoloader.inc.php';

// Load configuration
require_once APP_ROOT.'/config.php';
if (!defined('PSI_CONFIG_FILE') || !defined('PSI_DEBUG')) {
    $tpl = new Template("/templates/html/error_config.html");
    echo $tpl->fetch();
    die();
}
```

**THANK YOU!**