



**Barcelona  
Supercomputing  
Center**

*Centro Nacional de Supercomputación*



# s2dverification

Update meeting – 03/06/2016

Mailing list:

[s2dverification@bsc.es](mailto:s2dverification@bsc.es)

Wiki:

<https://earth.bsc.es/wiki/doku.php?id=tools:s2dverification>



- Current state
- Features in testing phase
- Paper to JSS
- Vignettes
- Compatibility break
- Issues and comments
- Useful links

- Current version: s2dverification v2.5.0
- New release soon: s2dverification v2.6.0
  - Will be uploaded on CRAN after 6 months.
  - Updated configuration file:

## BEFORE:

```
data <- Load('tos', exp = 'i00k', obs = NULL, sdates = '19901101')
```

## AFTER:

```
data <- Load('tos', exp = 'i00k', obs = NULL, sdates = '19901101')
```

or

```
data <- Load('tos', exp = 'eearth/i00k', obs = NULL, sdates = '19901101')
```

## BEFORE:

```
data <- Load('tos', exp = NULL, obs = 'HadISST', sdates = '19901101')
```

## AFTER:

```
data <- Load('tos', exp = NULL, obs = 'ukmo/hadisst_v1.1', sdates = '19901101')
```

or

```
data <- Load('tos', exp = NULL, obs = 'hadisst_v1.1', sdates = '19901101')
```

- Latest release: s2dverification 2.6.0
  - Updated configuration file:

## BEFORE

## AFTER

exp = 'ECMWF_S4_Sea'		exp = 'ecmwf/system4_m1'
		(or exp = 'system4_m1')
exp = 'EnsMetfrSeas'		exp = 'meteofrance/ensembles-seasonal_2002s001'
exp = 'EnsEcmwfSeas'		exp = 'ecmwf/ensembles-seasonal_2001s001'
exp = 'EnsIfmSeas'		exp = 'ifm/ensembles-seasonal_2001s001'
exp = 'EnsCerfacDec'		exp = 'cerfac/ensembles-decadal_2002s000'
exp = 'EnsIfmDec'		exp = 'ifm/ensembles-decadal_2002s001'
exp = 'DePreSysAsimDec'		exp = 'depresys/ensembles-decadal_2502s051'
exp = 'canm4dec1'		exp = 'canm4/cmip5-decadal_i1p1'
		(or exp = 'cmip5-decadal_i1p1')
exp = 'canm4dec2'		exp = 'canm4/cmip5-decadal_i2p1'
		(or exp = 'cmip5-decadal_i2p1')
obs = '20thCv2'		obs = 'noaa/20thcr_v2'
var = 'tasmin_q90'		var = 'tasmin_q90'
var = 'sieN'		var = 'sieN'
var = 'sia_RegionName'		var = 'sia_RegionName'
var = 'moc_40N55N_1-2km'		var = 'moc_40N55N_1-2km'

- Latest release: s2dverification 2.6.0
  - New features: EOF(), ProjectField(), SVD(), NAO(), UltimateBrier(), Cluster(), ToyModel(), StatSeasAt1Hurr(), Composite(), AnimVsLTime(), PlotBoxWhisker().
  - Can now plot arrows on PlotEquiMap().
  - Can now save plots from all plot functions in multiple formats.
  - Can now display plots onscreen from all plot functions (via fileout = NULL).
  - Load() now returns objects closer to the format in downscaleR. Initial and end dates of each time step are now provided.

- Latest release: s2dverification 2.6.0
  - Load ( ) returns labelled dimensions.
  - Improvements in Smoothing ( ).
  - Load ( ) now stops if the tags \$START\_DATE\$ or \$YEAR\$+\$MONTH\$+\$DAY\$ are not in the path pattern of any of the experiments.

Branch name	Pending testers	Deadline
develop-RMSE_boot	Chloé, Omar	2016-10-01
develop-SealceModes	Jean-Philippe	2016-10-01
develop-AreaWeights	Chloé, ???	2016-10-01
BoxesStereomap	Neven, Chloé	2016-10-01
develop-PlotClim	Nico, Valentina	2016-10-01

■ Stuck at the developer's side

- Sections pending to write:
  - All written.
- Some references missing, LP pointed out. Please review yours.
- Some coloured paragraph, please review yours.
- To be submitted around 2016-06-15.



- Nico to re-write some parts.
- List of responsables:
  - Overview: LP
  - Data retrieval: LP
  - Statistics: Javi, Neven
  - Visualisation: François
  - Example: Valentina
  - Tutorial: Chloé

- Towards s2dverification v3.0.0 – s2dv v3.0.0
  - A compatibility break will happen in Jan 2017 approx.
  - The name of the new version will change to 's2dv'.
  - Both packages will be available simultaneously in the machines.
  - Some releases of v2.6.X will happen with:
    - enhancements to load CMORized data.
    - new plotting system.
  - Plan in drive:  
[https://docs.google.com/spreadsheets/d/1zj5\\_VEAJGVhc0mZ7n-5u313ljXEFjow9iqTX9fGd21g/edit#gid=0](https://docs.google.com/spreadsheets/d/1zj5_VEAJGVhc0mZ7n-5u313ljXEFjow9iqTX9fGd21g/edit#gid=0)
- Júlia will start work on the compatibility break next week.
- Nico will keep working on paper, Vignettes and Load() enhancements to load CMORized data.

- Can switch versions with:

```
#!/bin/bash  
  
# Old old version  
module load s2dverification/2.4.6-foss-2015a-R-3.2.0  
  
# Old version  
module load s2dverification/2.5.0-foss-2015a-R-3.2.0
```

- No need, by now, to specify version number in your scripts.

- If documentation is not clear for any function, discuss with developer and improve:

create a GIT branch > improve > push > merge request

- Ongoing developments?
  - Chloé's correlation difference.
  - Jean-Philippe's hurricane density and track plot.
  - Nicola's enhancements of `PlotEquiMap()`.
  - Martin's enhancements of `PlotStereoMap()` and `PlotSection()`.
  - François developing plot of JoCoMo matrix (for September approx.).
- Other issues?

- How to develop in s2dverification

<https://earth.bsc.es/wiki/doku.php?id=tools:s2dverification#development>

- GitLab

<https://earth.bsc.es/gitlab/s2dverification>

- Script to test or try features in development

</shared/earth/software/scripts/test-s2dverification> feature

- Script to upgrade configuration files (v2.4.6 → ≥ v2.4.7)

</shared/earth/software/scripts/convertConfig.R> file.conf



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EXCELENCIA  
SEVERO  
OCHOA

Thanks for your attention

[nicolau.manubens@bsc.es](mailto:nicolau.manubens@bsc.es)