

Actors that manage gridded data

These actors hold the gridded data and provide the various methods needed for visualizing the features.

Note

For all actors that visualize gridded data please note the following:

- The "variables" of the actors can be synchronized with the global time and ensemble settings but don't have to be synchronized (e.g. if different ensemble members shall be compared).
- Availability of ensemble functionality depends on the data pipeline (if connected to an ensemble dataset, the pipeline can provide the data of different ensemble members or compute statistical quantities including ensemble mean and probabilities).

How to...

...add variables?

For all these actors, there exists an **add new variable** option, on clicking the execute, the list of variables available in the data loaded with the data pipeline is displayed and the user can choose the variable that needs to be added.

Property	Value
Horizontal cross-section	
enabled	☒ True
configuration	
actor properties	
variables	
add new variable	execute

Available data sources

Please select a variable and confirm with "OK":

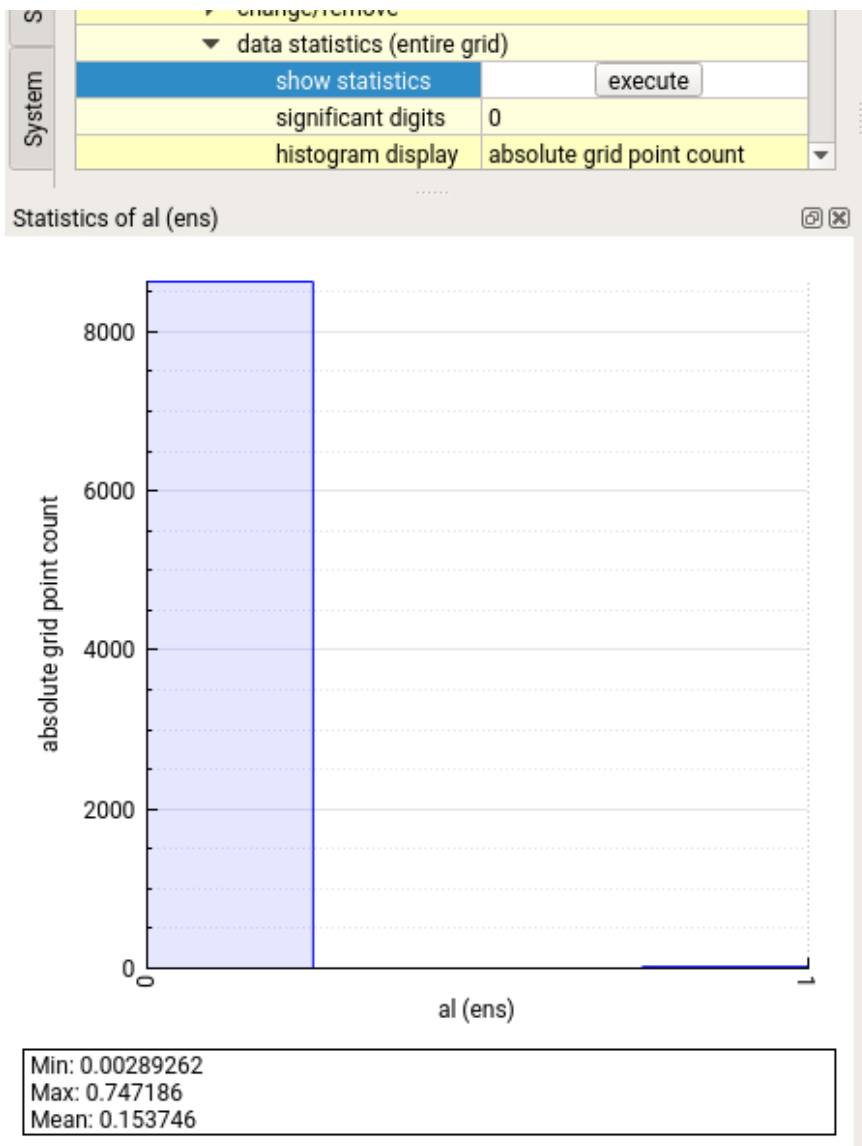
Dataset	Vertical Dimension	Variable Name
ECMWF ENS ENSFilter	Surface	10u (ens)
ECMWF ENS ENSFilter	Surface	10v (ens)
ECMWF ENS ENSFilter	Surface	2d (ens)
ECMWF ENS ENSFilter	Surface	2t (ens)
ECMWF ENS ENSFilter	Surface	al (ens)
ECMWF ENS ENSFilter	Surface	asn (ens)
ECMWF ENS ENSFilter	Surface	blh (ens)
ECMWF ENS ENSFilter	Surface	cape (ens)
ECMWF ENS ENSFilter	Surface	ci (ens)
ECMWF ENS ENSFilter	Surface	cp (ens)
ECMWF ENS ENSFilter	Surface	e (ens)
ECMWF ENS ENSFilter	Surface	hcc (ens)
ECMWF ENS ENSFilter	Surface	lcc (ens)
ECMWF ENS ENSFilter	Surface	lsm (ens)
ECMWF ENS ENSFilter	Surface	lsp (ens)
ECMWF ENS ENSFilter	Surface	mcc (ens)
ECMWF ENS ENSFilter	Surface	msl (ens)
ECMWF ENS ENSFilter	Surface	sd (ens)
ECMWF ENS ENSFilter	Surface	sf (ens)
ECMWF ENS ENSFilter	Surface	skt (ens)
ECMWF ENS ENSFilter	Surface	sp (ens)
ECMWF ENS ENSFilter	Surface	sst (ens)

OK Cancel

The user needs to repeat this step to add multiple variables or even the same variable multiple times. Also, once a variable has been added, it has options so that it can be removed or changed.

...get information about the variable's data?

It is possible to get some statistics about the data of a given variable.



Also, it is possible to export the data to an external file for debugging purposes.

debug	
dump grid data	(click to execute)
save xsec grid	(click to execute)

...smoothen the data?

Met.3D provides options to smoothen the data.

horizontal smoothing	
recompute on property change	☐ False
compute	(click to execute)
smooth mode	horizontalBoxBlur_distance
boundary conditions	constant
standard deviation (km)	10.0
standard deviation (grid cells)	3

Currently horizontal smoothing is possible using either distance based or grid cell based modes.

We recommend to use the smooth mode "horizontalBoxBlur_distance" with "symmetric" boundary conditions.

...visualize ensemble data?

System	▼ synchronization	
	synchronize with	Synchronization
	sync init time	☐ False
	sync valid time	☐ False
	sync ensemble	☐ False
	initialisation	2016-09-22T00:00:00Z
	valid	2016-10-02T00:00:00Z
	select members	(click to execute)
	utilized members	0/1/2/3/4/5/6/7/8/9/10/11/...
	ensemble mode	member
	ensemble member	0
	ensemble threshold	0.000000

Met.3D supports ensemble visualization. Each variable by default is synchronized to temporal extents and ensemble size based on the data loaded using the data pipeline. By turning off the ensemble synchronization, the user can choose the members and the ensemble mode. Currently individual member or ensemble mean, standard deviation, min, max, max-min, above or below a threshold are supported.