

The **?ECOMS UDG** provides access to a reduced number of variables for the available [datasets?](#). The following list of variables has been identified (and is periodically updated) according to the user's needs, receiving feedback from EUPORIAS WP22 (climate information indices, CIIs), WP23 (impact models), WP21 (calibration and downscaling) and SPECS WP61 (pilot applications) and WP52 (calibration and downscaling). See the section on the [assessment of user's needs](#) for more details.

The following labels are used in the table below (**Available**: The variable is available and ready to use through the ECOMS UDG; **e**: The variable exists in the original dataset; **P**: The variable exists in the original dataset and work is in progress to incorporate it to the UDG; blanks indicate lack of data).

Note that the short names shown in boldface correspond to standard variables according to the [?NetCDF Climate and Forecast Metadata Convention](#) and to the naming convention within SPECS, but do not correspond to the original source name for the different datasets.

short name	Variable description	Frequency	Aggregation	Availability for the following datasets:				
				?System4 seasonal 15	?System4 seasonal 51	?System4 annual 15	?CFSv2 seasonal 16	?SPECS-ESGF
tas	Near-Surface air temperature	Daily	mean	Available	Available		Available	e
tasmax	Daily Maximum Near-Surface Air Temperature	Daily	maximum	Available	Available	Available	Available	e
tasmin	Daily Minimum Near-Surface Air Temperature	Daily	minimum	Available	Available	Available	Available	e
tp	Total precipitation amount	Daily	accumulated	Available	Available	Available	Available	e
psl	Sea Level Pressure	Daily	mean	Available	Available	e	Available	e
ps	Surface air pressure	Daily	mean	P(*)			e	
wsp	Wind speed (at 10m)	Daily	mean	P(*)	e	e	e	
tdps	2m Dewpoint Temperature	Daily	mean	P	e			e
huss	Surface (2m) specific humidity	Daily	mean	P(*)			e	
rsds	Surface Downwelling Shortwave Radiation	Daily	mean	P	e		e	e
rlsds	Net Longwave Surface Radiation	Daily	mean	P	e		e	e
sst	Sea surface temperature	Daily	mean	e	e	e		
uas	Eastward Near-Surface Wind	Daily	mean	e	e	e	e	e
vas	Northward Near-Surface Wind	Daily	mean	e	e	e	e	e
wspmax	Wind speed (at 10m)	Daily	maximum	e	e	e	e	
wgust	Wind gust	Daily	maximum	e	e			
mrso	Total Soil Moisture Content	Daily	mean				e	e
mrros	Surface runoff flux	Daily	accumulated	e	e		e	
mrro	Total Runoff	Monthly	mean	e	e			e
ssro	Sub-surface runoff rate	Daily	mean	e	e			
prsn	Snowfall Flux	Daily	mean	e	e			e
wcsl	Water Content of Soil Layer	Daily	mean	e	e			
		Monthly	mean	e	e			
z850	Geopotential 850mb	Daily	mean	e	e	e	e	
z925	Geopotential 925mb	Daily	mean	e	e			
ua850	Eastward Wind	Daily	mean	e	e	e	e	
va850	Northward Wind	Daily	mean	e	e	e	e	
ua925	Eastward Wind	Daily	mean	e	e		e	
va925	Northward Wind	Daily	mean	e	e		e	
zg700	Geopotential Height	Daily	12 UTC	e	e	e	e	
zg1000	Geopotential Height	Daily	12 UTC	e	e		e	

(\*) These variables do NOT exist in the corresponding dataset, but they will be derived/approximated from other available variables. More information in the table of [?variables-datasets mapping](#).

**Data Homogeneization:** The different nature of the datasets, and the idiosyncratic naming and storage conventions often applied by the modelling centres, makes necessary an homogeneization across datasets in order to implement a truly user-friendly toolbox for data access. To this aim, the [R package for data access](#) has been developed. Data homogeneization is achieved through the creation of a common vocabulary. The particular variables of each dataset are then translated -and transformed if necessary- into the common vocabulary by means of a *dictionary*. Both features -vocabulary and dictionary- are described [here?](#).