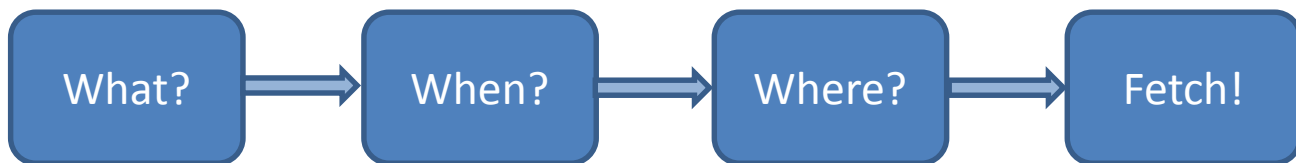


FetchClimate2

How to Fetch! data



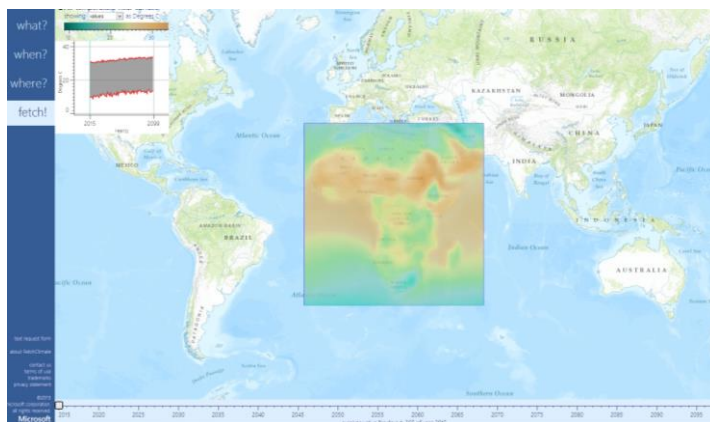
Retrieve global and local environmental information with the click of a button or a few lines of code

FetchClimate

Fetch Climate is easy to use for simple data searches and export, but can be a powerful tool for environmental modelling; with just a few lines of code.

This tutorial will take you through a simple fetch.

The best way to learn to use FetchClimate is to have a go on the website; <http://fetchclimate2.cloudapp.net>



Walk through tutorial

There are four easy steps to getting your environmental information. You need to ‘tell’ FetchClimate:

1. What data you want (temperature or rainfall or anything else on the What page)
2. When you would like the data from (do you want today's data, last years, or future data?)
3. Where you would like the data to cover (the globe or just the UK for example)
4. Click ‘Fetch’ and wait for your data to be displayed on the map (this can take some time depending on the size and complexity of your search)

To start go to the FetchClimate webpage; <http://fetchclimate2.cloudapp.net> and follow these simple steps:

What? When you go to the FetchClimate tool you are greeted with a list of data sets that you can Fetch!

<http://fetchclimate2.cloudapp.net>. To select the data you want just click onto the ‘data-box’. Here we have selected You’ll notice that each data set has a name, units, a short name (this is used in coding, don’t worry about it if you just want to use the web tool) and a data source (only important if you want a specific data source, FetchClimate will automatically return the best data).

	please select one or more environmental variables				about data source
what?	Specific Humidity (Near Surface) 2006-2100 units: kg/kg short name: SpecificHumidity data source: GFDLGechem	Air temperature near surface units: Degrees C short name: air data source: CRU CL 2.0 GFDLArmp GHCR2 NCEP/NCAR Reanalysis 1 (regular grid) WorldClim1.4	Air temperature near surface (land only area) units: Degrees C short name: air_land data source: CRU CL 2.0 FCI Variables WorldClim1.4	Air temperature near surface (ocean only area) units: Degrees C short name: air_ocean data source: FCI Variables	
when?					
where?					
fetch!	Depth below sea level (ocean only area) units: meters short name: depth_ocean data source: FCI Variables	Diurnal air temperature rate units: Degrees C short name: dr data source: CRU CL 2.0	Elevation above sea level units: meters short name: elev data source: ETOPO1	Elevation above sea level (land only area) units: meters short name: elev_land data source: GTOPO30	
	Frost days frequency units: days/month short name: fr data source: CRU CL 2.0	Precipitation rate units: mm/month short name: prate data source: CRU CL 2.0 GHCR2 NCEP/NCAR Reanalysis 1 (Gauss T82) WorldClim1.4	Precipitation flux 2006-2100 units: mm/month short name: precipflux data source: GFDLPreFlux	Relative humidity units: percentage short name: return data source: CRU CL 2.0 GFDLHum	
	Relative humidity (land only area) units: percentage short name: return_land data source: CRU CL 2.0 FCI Variables	Soil moisture units: mm3 short name: soilmoist data source: GCoSMoisture	Sunshine fraction units: fraction of maximum possible sunshine short name: sunp data source: CRU CL 2.0	Wet days frequency units: days/month short name: wet data source: CRU CL 2.0	
	Wind speed at 10m units: m/s short name: windsped data source: CRU CL 2.0				

When?

The next step is to select the time that we want to see our temperature data over. Click the 'When?' tab along

the Left hand side of the FetchClimate web tool. The first chunk of text lets you select the years you want data for. Here we want temperature until 2050, so in the top boxes we enter 'Years from **2013** to **2050**' and click the option for individual years so we can see annual differences. We also pick 'twelve monthly averages' so that we can see how temperature changes over the year (ignore hourly for now, you can explore that yourself later).

what? when? where? fetch!

Years from 2013 to 2050

- individual years
- average over the years
- average over chunks

UK

- twelve monthly averages
- average for the part of the year
- individual days
- average over chunks

Year	Fetch!
2013	Fetch!
2014	Fetch!
2015	Fetch!
2016	Fetch!
2017	Fetch!
2018	Fetch!
2019	Fetch!
2020	Fetch!
2021	Fetch!
2022	Fetch!
2023	Fetch!
2024	Fetch!
2025	Fetch!
2026	Fetch!
2027	Fetch!
2028	Fetch!
2029	Fetch!
2030	Fetch!
2031	Fetch!
2032	Fetch!
2033	Fetch!
2034	Fetch!
2035	Fetch!
2036	Fetch!
2037	Fetch!
2038	Fetch!
2039	Fetch!
2040	Fetch!
2041	Fetch!
2042	Fetch!
2043	Fetch!
2044	Fetch!
2045	Fetch!
2046	Fetch!
2047	Fetch!
2048	Fetch!
2049	Fetch!
2050	Fetch!

Where?

Next we select where we want our data for. Click the 'Where?' tab. In this example we will look at

temperature in the UK. You can navigate around the map with your mouse by clicking and dragging the map around or using the 'wheel' to zoom in and out. To add a location box click 'add area' (once clicked you can NOT navigate, if you want to navigate again just click 'add area' again). Then click onto the map and 'stretch' your box to cover the desired area,. You can modify the box using the corner squares or by typing in latitude/longitude coordinates into the Lat/Lon boxes. Single points can be added using the 'add point' box.

what? when? where? fetch!

add point add area

area lat lon

min: 50.00 0.00

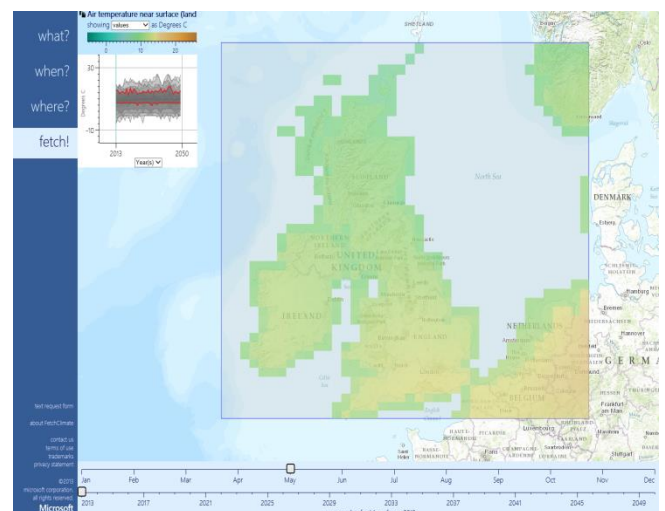
max: 60.00 0.00

cells: 41 41

Fetch!

Finally, if we click the 'Fetch!' tab FetchClimate will begin retrieving the data we have asked for.

This can take a variable amount of time depending on what you have asked for. Now that we have our data we can explore our data; in space by 'hovering' the mouse over individual areas (gives the temperature for this area), or in time; by using the sliders at the bottom of the results page, we can slide through years or through the months of each year. Note the results are also shown in a graph in the top corner. We can also export the data using the export button (small black document icon next to data name, top left corner).



Enjoy exploring and using FetchClimate!