

Exploring Metview

Download

Download the icons for this session from the link below. Create a sub-directory called `training` inside your Metview home directory, `$HOME/metview`, and save the `.tar.gz` file there. Then, from Metview, navigate to this folder and right-click on the `tar.gz` icon; choose **Extract** to uncompress the files into their folder. Work from there. The main instructions are written for participants of the [Data analysis and visualisation using Metview](#) training course at ECMWF. Any files to be copied from the file system will also be downloadable from this page.

File	Modified
File explore.tar.gz	Mar 19, 2015 by Iain Russell

Overview

In this session, you should explore some of the other features that Metview has to offer. You can either do whatever you please, or follow some of the suggestions below.

Working with Folders and Icons

Go through [this](#) tutorial to become more proficient at using Metview's user interface for navigating folders and finding icons.

Monitoring Metview's Processes

Name	CPU %	Memory	Time	PID	Information
Data Cache	< 1 %	7.1 M	19h:57m	28553	
Display Batch Module	< 1 %	91.4 M	03h:30m	9636	
Display Manager	< 1 %	7.1 M	19h:57m	28572	
GeoTool Manager	< 1 %	6.8 M	01h:36m	12578	
Macro Editor	< 1 %	12.1 M	19h:58m	28495	
Mars	< 1 %	9.1 M	04m	14549	Name: mars
Meteogram	< 1 %	7.3 M	05m	14522	Full name: Mars
OdbFilter	< 1 %	6.8 M	49m	13954	Host: odorir
Process monitor	< 1 %	35.7 M	00m	14787	User: cgi
ScmRun	< 1 %	6.8 M	02h:51m	10237	Pid: 14549
ScmVisualiser	< 1 %	6.8 M	02h:51m	10655	
User Interface	< 1 %	108.1 M	19h:59m	28477	

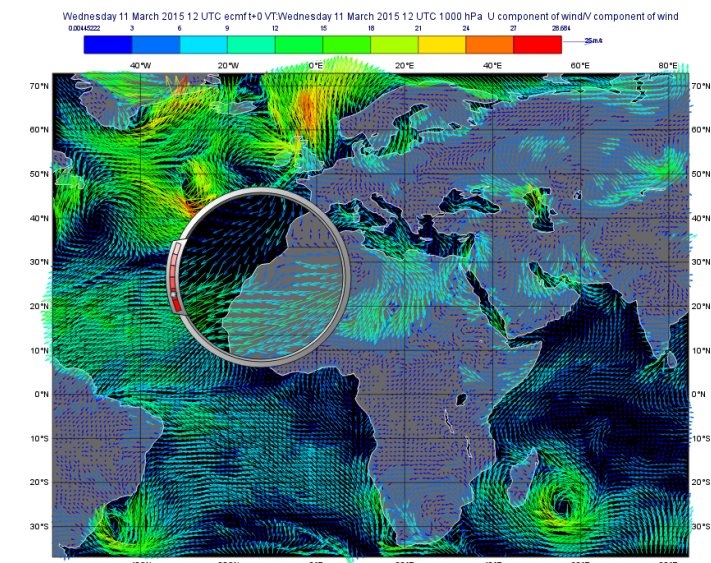
Metview has a built-in task monitor, available from the **Tools** menu on the menu bar (**Process Monitor...**). This tool allows you to see which processes Metview is currently running. It also allows some control, such as the ability to abort processes (right-click menu on each process's entry).

Often, Metview processes are run so quickly that you barely see them in the **Process Monitor**. However, data retrievals and complex computations can take longer. Experiment with this tool; keep it running while you perform some computations or visualise some data.

Explore Metview's Icons

Have a look at the available icons in the **New Icon** dialogue - investigate some that interest you!

Plot Coloured Wind Fields

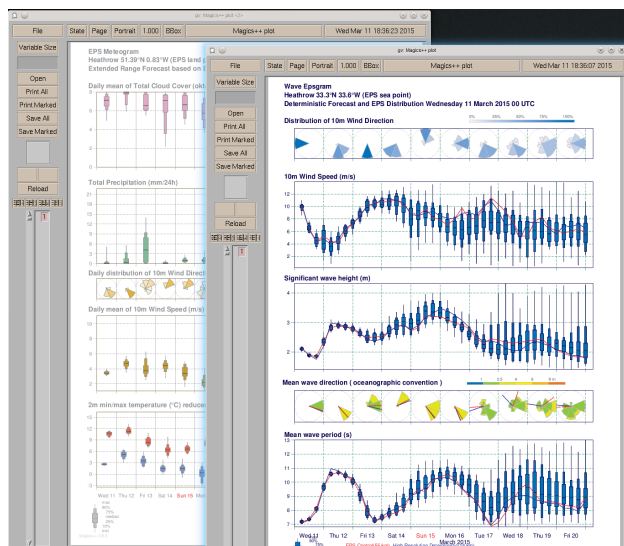


Create a new *Wind Plotting* icon and set the following parameters in order to colour the arrows according to the wind speed:

Legend	On
Wind Thinning Factor	1
Wind Advanced Method	On
Wind Advanced Colour Max Level Colour	Red
Wind Advanced Colour Min Level Colour	Blue
Wind Advanced Colour Direction	Clockwise
Wind Advanced Colour Parameter	Speed

Visualise *ztuv.grb* from the [Data Part 1](#) session and move to a wind field. Drop the new *Wind Plotting* icon into the plot window. This plot is clearer if dark grey land/sea shading is used.

Meteograms



Also available is the *Meteogram* icon (only available at ECMWF). This icon uses an embedded *Stations* icon; use it, but edit it before using it. This is will allow you to explore the *Stations* editor; this provides access to thousands of WMO stations.

Edit the embedded *Stations* icon and click on the button next to the **Name** parameter. This brings up the **Stations** search helper.

This tool allows you to search for stations in various ways. For instance, type 'helsinki' into the search box to find all stations whose names start with that string. Select one, and Close the tool.

When you visualise the *Meteogram* icon, it will send a request to ECMWF's server which will generate a meteogram plot.

Running Shell Scripts

The *Shell Script* icon allows you to enter shell commands such as 'ls'. You can run the commands directly from the editor, in which case the output will appear in the **Output** area at the bottom, or else you can right-click execute and look at the icon's output messages.

Storing Text Notes

The *Notes* icon stores plain text, so you can use this to make notes. General text files copied into a Metview folder will appear as *Notes* icons.

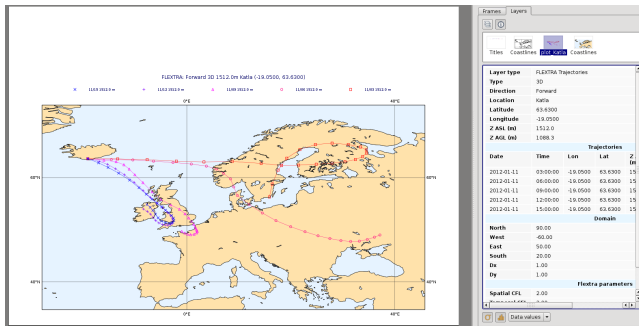
Using Web Map Services (WMS)

Metview provides a module to request maps from a [Web Map Services \(WMS\)](#). The WMS standard is defined by the [Open Geospatial Consortium \(OGC\)](#), which is very popular in the GIS community. The WMS module can be used to query an OGC-compliant WMS server, retrieve maps from it and overlay them with other data. The WMS icon is a great way to integrate web services within Metview.

We have a [separate tutorial](#) which shows in more detail how you can use maps served by web map services within Metview.

- We provided you with some example WMS icons. Try out the four WMS icons in the directory by visualising them.
- Edit the icons to see the catalogues of layers available.
- Drop the icon into a macro editor to explore how a WMS retrieval looks like.

Trajectories (FLEXTRA)



FLEXTRA is an established trajectory model used by growing scientific community. Metview has a set of icons for interacting with FLEXTRA at all stages: preparing the data, running the model and visualising the output.

Visualise the *FLEXTRA Plot* icon from the *solutions* folder (it will automatically execute the *FLEXTRA Run* icon). The computations will take a minute or so; their input is a set of GRIB files stored on the file system. **Examine** the *FLEXTRA Run* icon to see the model output.

For more information on using FLEXTRA within Metview, please see the tutorial, available at [Tutorials](#).