PLATON

PLotting of ATmospheric ONline data

http://www.weprog.com/forecast

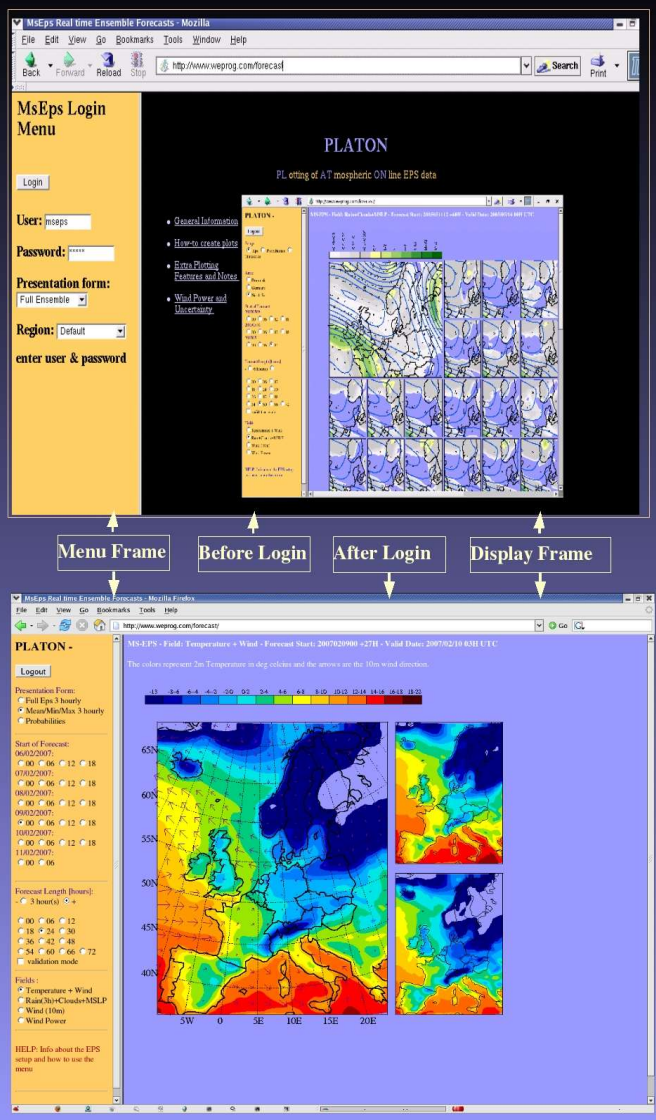
Weather & wind Energy PROGnosis

PLATON's presentation forms

There are 4 different presen-tation forms, where each form has slightly different menu, determined by the available data.

The available presentation forms are:
- Full Ensemble (75 members + EPS mean)
- Mean-Min-Max Graphics
- Probability Graphics
- Time series of Fields

There are regions available over the entire globe



Mean-Min-Max Graphics

The EPS mean is the left figure, the EPS minimum is the right upper figure and the EPS maximum is the right lower figure

The EPS "min and max" are the extreme values of the EPS evaluated locally. This is a faster method of getting an overview of the forecast uncertainty at any point. The large figure shows the more likely average, where local details may deviate from the average in the range given between the minimum and maximum.

The EPS "min and max" are the extreme values computed in each area and NOT real forecasts. Thus, the min and max presentations (right figures) do not provide a consistent weather map and shall only be used for local risk evaluation.

Time series of Fields:

The time series graphs show the hourly development over one fore-cast length for:
- a certain area
- a certain parameter
- the next two or three days

Available Parameter to display:

The available fields are:
- Temperature at 2m + Wind Speed (colours + arrows)
- Rain + Clouds and MSLP (green + gray colours and contours)
- Wind Speed at 10m + MSLP (colours + contours)
- Wind Power + MSLP (colours + contours)

The Full Ensemble Graphics

In the "Full Ensemble" graphics all pages comprise 1 + 75 figures. The left upper figure is the ENSEMBLE MEAN and gives an indication of how the large scale weather will develop.

The 75 individual forecasts each represent a possible evolution of the weather. The likelihood of a particular evolution is proportional to the number of (almost) similar forecasts.

The Probability Graphs

The data is the raw output of WEPROG's probabilistic multi-trend filter (pmt), that evaluates and analyses the probability of a certain outcome from the Ensemble.

Concept of the Probabilistic Multi-Trend Filter Algorithm

=> follow groups of ensemble members with similar probability

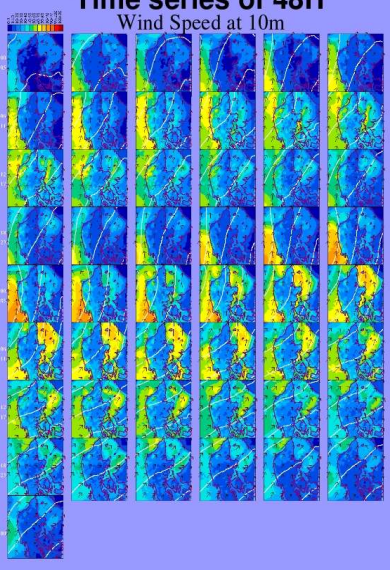
=> derives the "best guess" by applying a forward-backward stepping method

=> is designed for an operator/forecaster, as a method to find a conservative guess of the most likely weather evolution

=> is an aid to building confidence in the interpretation of the probability distri-bution and estimation of the risk of certain actions.

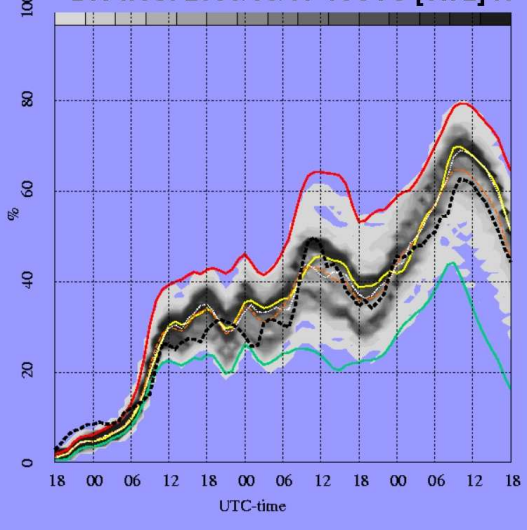
Time series of 48H

Wind Speed at 10m



Wind Power Probability Graph

DK-west 2006/03/07 18UTC [0:72] H



Full Ensemble Graphics

Temperature at 2m