

nsFORECAST

making sense of your weather data

The NetSys Forecasting Tool Suite

Introduction

nsFORECAST is the NetSys Forecasting Tool Set seeking to address the need of forecasters to visualize and interact with meteorological data and ultimately to assist in bringing forecasts of various kinds to fruition. It covers a broad spectrum of data types and functionality commonly required by forecasting departments in their day-to-day activities.

Data Standards

The system supports the following input formats

- WMO manual 306 compliant messages in TAC or TDCF format
- GRIB and GRIB2 from NWP (WAFS, ECMWF, Mesoscale, ...)
- RADAR data in European OPERA format
- Numerous raster image types are supported (PNG, BMP, JPEG etc.)
- EUMETCast satellite input
- Legacy T4 Fax

TAC and their TDCF counterparts can be decoded into the individual fields for output to CLIMAT databases, the plotting of station models, the monitoring of values against thresholds and for the construction of Meteograms.

Industry Standards

Because our customers require us to remain abreast of important developments within the industry, we ensure that the system is fully compliant to the **WMO** Manuals on the GTS 386 and Codes 306 as well as **ICAO** Annex 3 and remains up to date as Amendments are made (currently supports up to Amendment 74).



Variety of Products

The system can create a large variety of direct or derived products in high resolution PostScript, Adobe PDF or anyone of a number of raster formats such as PNG, BMP and JPEG. The products are

- BUFR Significant Weather
- RADAR colourization
- Satellite colourization
- SYNOP Station plots
- SYNOP Contour plots
- Upper Air plots
- Tephigrams
- Meteograms
- GRIB Shaded Topography
- GRIB ISO Contours
- GRIB U/V component arrows



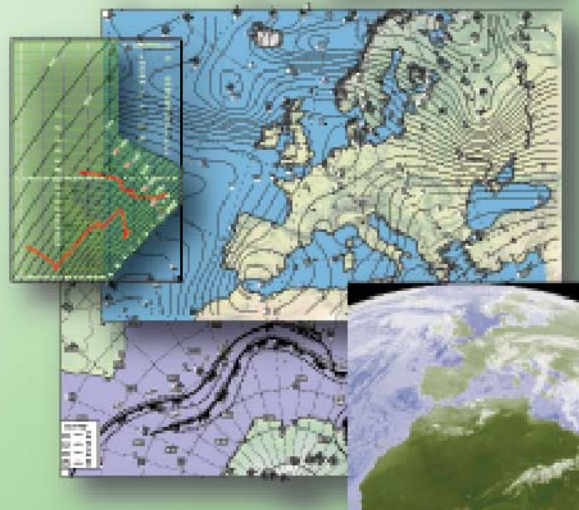
COTS Hardware

For the server and workstation platforms, NetSys elects to use Commercially Off The Shelf (COTS) hardware only, with a preference for Dell and HP equipment with hot swappable components for servers. The workstations make use of high-resolution LCD monitors and 3D accelerated graphics cards to make the forecaster's experience smooth and of high fidelity. There is also the option to connect more than one monitor to each workstation for an extended working surface.



HA Cluster

The system deploys a client-server architecture that allows multiple workstations to connect to the server-side data store. The servers can be paired in a High Availability cluster with a single IP address to provide the forecasters with uninterrupted data services. For smaller forecasting offices, the server and client can be hosted on a single workstation.



Communications Standards

The basic configuration allows for the system to be populated with data through a TCP/IP Socket connection from a WMO compliant message switch such as the NetSys nsMHS which can also be the default output medium. Numerous other possibilities are feasible by making use of I/O drivers from the NetSys nsMHS and nsWAFS offerings.

EUMETCast Satellite reception is possible by incorporating components from the NetSys nsSAT offering.

The system also provides the possibility to output generated products automatically to a web server by means of FTP, SCP or SMB to facilitate seamless integration with an institution's web portal.

