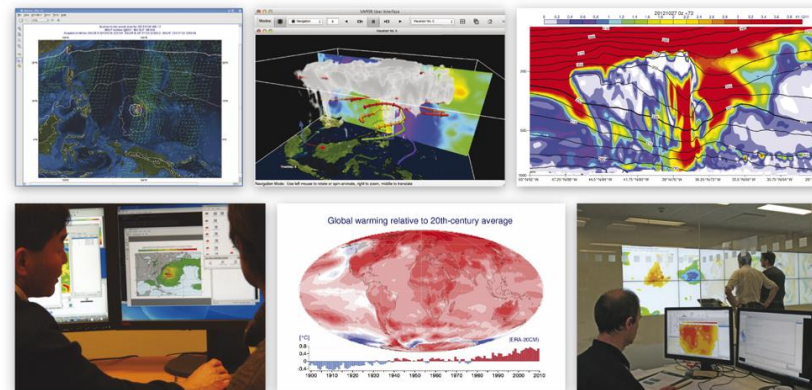


What is EGOWS?

25 years of history in forecaster workstation developments

Stephan Siemen

Development Section, ECMWF



25 years of workstation developments – the EGOWS story

- Until the end of the 1980's graphics/visualisation was very hardware dependent
 - There were increasing signs that common and cheaper platforms would become available
 - It was seen as too complex for any country to develop their own workstations
 - There was not enough money to interest industry to develop one
- As result of the
 - *Graphics in meteorology* workshop (1988 @ ECMWF) and the
 - *Meteorological Operational System* workshop (MOS 1989 @ ECMWF)

it was decided to “share experiences and co-operate to answer common challenges”.



This meeting was the first step in establishing a cooperation between European countries in the development of MWS for weather monitoring and forecasting. The initiative was taken after the ECMWF's workshop on operational forecasting, Dec. 1989. Informally, a small meeting between a few countries with ongoing projects in the field was then suggested.

*From first
EGOWS report,
Oslo 1990*

Objectives and first meeting in Oslo 1990

The objectives are:

To promote cooperation between the meteorological organizations in Member States of ECMWF in the field of work stations for operational weather monitoring and forecasting. The group will establish cooperation to promote development and progress in this field and serve as a medium for exchange of information between the participating organizations.

The meeting decided to focus on the following activities to fulfil the objectives:

- Exchange of information, including meetings and computer codes*
- Exchange of people working in the field*
- Establishment of projects between two or more countries*

From first EGOWS report, Oslo 1990

REPORT FROM THE MEETING ON METEOROLOGICAL WORK STATIONS IN OSLO, NORWAY 5-7 JUNE 1990

CONTENTS

- 1. INTRODUCTION**
- 2. THE CONCEPT OF A METEOROLOGICAL WORK STATION (MWS)**
- 3. NATIONAL MWS STATUS AND DEVELOPMENT**
 - Finland
 - France
 - Norway
 - Sweden
 - ECMWF
- 4. RECOMMENDATIONS ON MWS DEVELOPMENT**
 - 4.1 Allocation of resources
 - 4.2 Requirements for a MWS
 - 4.3 Recommendations on standards
 - 4.4 Cooperation
- 5. ORGANIZATION OF FUTURE COOPERATION**
 - 5.1 Formation of a working group
 - 5.2 Exchange of information
 - 5.2.1 Computer programs and electronic mail
 - 5.2.3 Meetings and newsletters
 - 5.3 Exchange of persons
 - 5.4 Formation of projects

25 years of workstation developments – the EGOWS story

- Annual meeting which includes
 - Presentation of latest developments
 - Exhibition of systems
 - Working groups to discuss common challenges
 - First meetings also published a report
- Most material is available on the EGOWS Wikipedia page

<https://en.wikipedia.org/wiki/EGOWS>

(thanks to Kees Lemcke, KNMI)



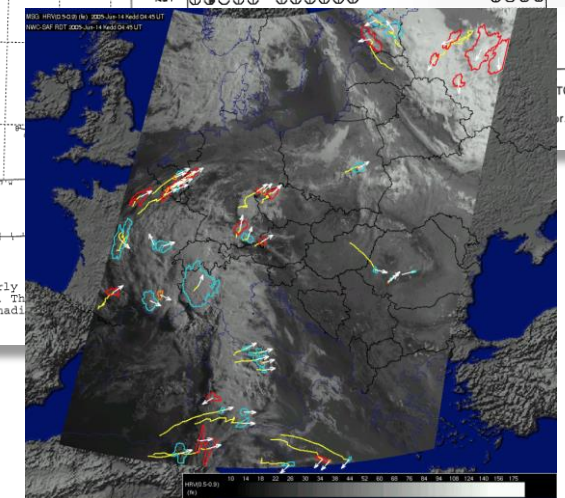
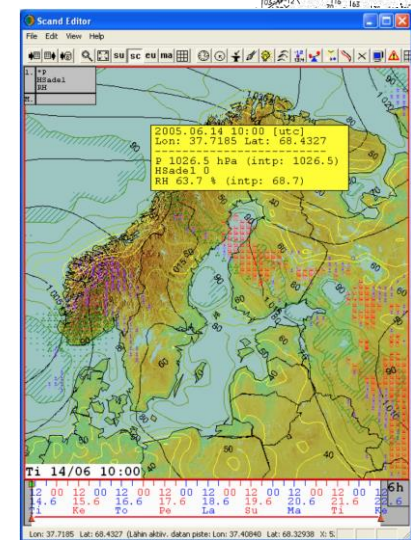
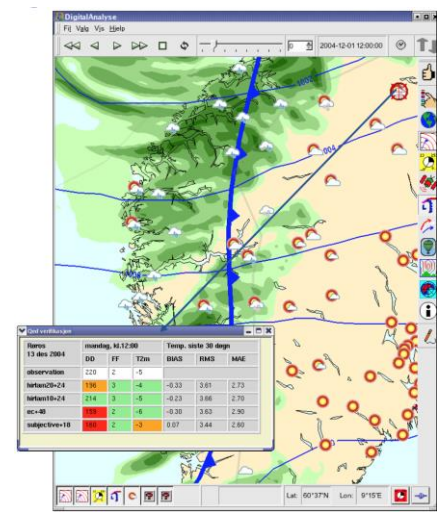
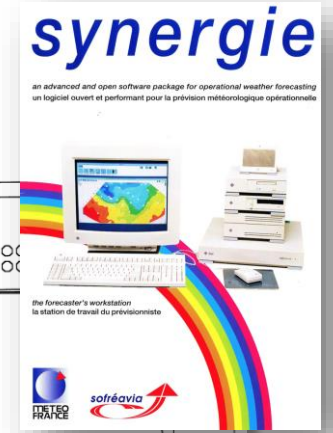
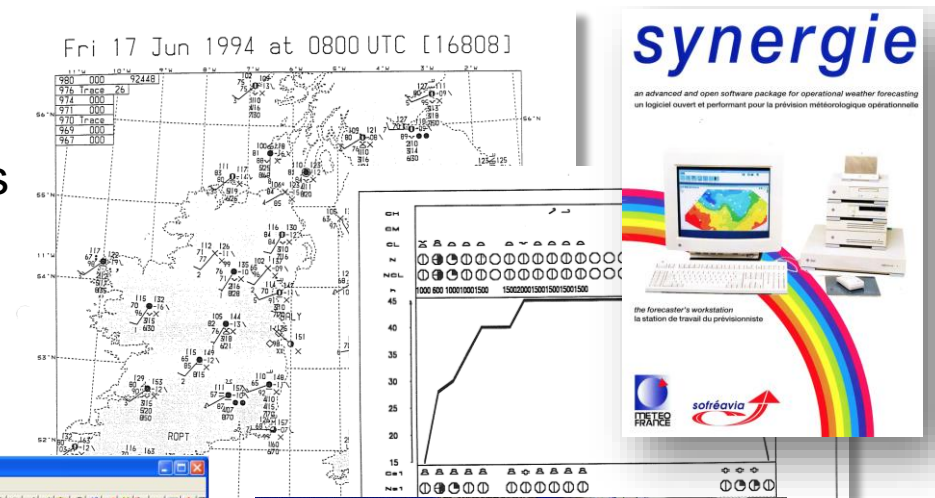
- 1990 Oslo
- 1991 Paris
- 1992 Helsinki
- 1993 Offenbach
- 1994 Copenhagen
- 1995 Vienna
- 1996 Reading
- 1997 Toulouse
- 1998 Norrköping
- 1999 De Bilt
- 2000 Helsinki
- 2001 Zürich
- 2002 Rome
- 2003 Tromsø
- 2004 Potsdam
- 2005 Exeter
- 2006 Budapest
- 2007 Dublin
- 2008 Ljubljana
- 2009 De Bilt
- 2010 Reading
- 2011 Toulouse
- 2012 Exeter
- 2013 Offenbach
- 2014 Oslo
- 2015 Reading
- 2016 ?

Topics covered

The EGOWS meeting doesn't only focus on IT technology it can also encompass methodology, organisation of forecasting.

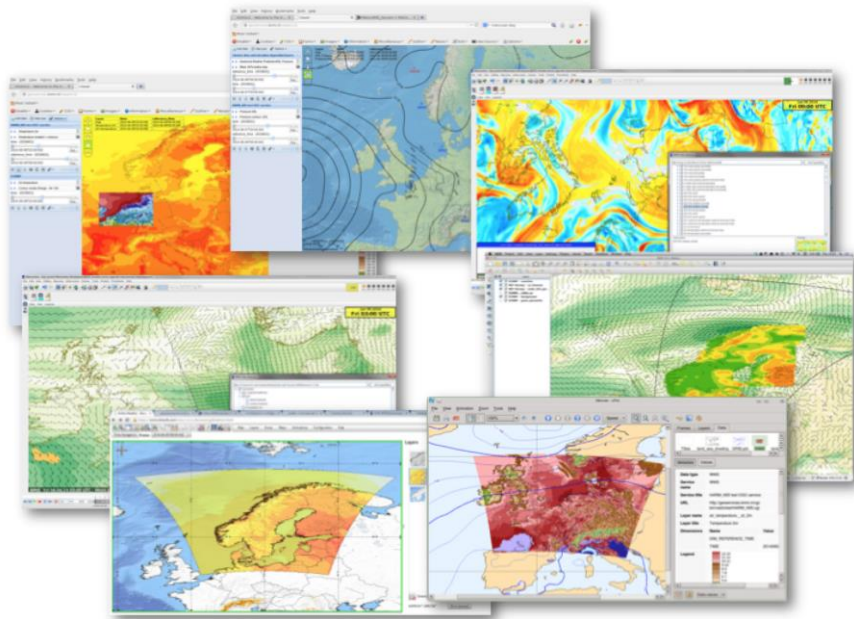
- Define the remit of a meteorological workstation (MWS)
 - EGOWS always encouraged contributions from forecasters!
- The best ways to design Graphical user interfaces for forecasters
- Discuss use of meteorological standards (e.g GRIB, BUFR, ...)
- Graphics libraries and standards (e.g. Motif, SVG, ...)
- How to improve the process of software development
- The OGC web standards

HAWK Diana MAP Synergie
 Metview RiPP MAVIS NinJo xcharts
 VisualWeather Horace SmartMet



Interoperability Experiments / PlugFests

- In recent years EGOWS has added to its exhibition also hands-on sessions to test OGC standards
- This was in co-operation with the work of the *MetOcean Domain Working Group* of the OGC
- This will be continued you this year with a PlugFest on Friday



Results of WMS plugfest at EGOWS 2014, Oslo 2015



Working groups

- This year we have two topics

1. Possibilities for co-operations

- Shared code developments
- Shared repositories for symbols and icons
e.g. <https://github.com/OGCMetOceanDWG/WorldWeatherSymbols>
- Common work practices for standards (web, OGC)
- Approaching third-party open source projects to support community's requirements

2. Adoption of OGC/GIS standards where are we and where do we go?

- How much are OGC standards used now?
- Which standards are implemented? Which are the current focus?
- What needs to be done to promote wider use?

GitHub This repository Search Explore Features Enterprise Pricing Sign up Sign in

OGCMetOceanDWG / WorldWeatherSymbols Watch 10 Star 22 Fork 13

A complete set of WMO weather symbols in SVG with full metadata.
<https://github.com/OGCMetOceanDWG/WorldWeatherSymbols>

91 commits 1 branch 3 releases 6 contributors

Branch: master WorldWeatherSymbols / +

Filename/symbol	Description	Icon
WeatherSymbol_WMO_PresentWeather_ww_19.svg	Present weather reported from a manned weather station: Funnel cloud(s)** at or within sight of the station during the preceding hour or at the time of observation. ** Tornado cloud or waterspout	☄
WeatherSymbol_WMO_PresentWeather_ww_20.svg	Present weather reported from a manned weather station: Drizzle (not freezing) or snow grains not falling as shower(s)	☂
WeatherSymbol_WMO_PresentWeather_ww_21.svg	Present weather reported from a manned weather station: Rain (not freezing) not falling as shower(s)	☔
WeatherSymbol_WMO_PresentWeather_ww_22.svg	Present weather reported from a manned weather station: Snow not falling as shower(s)	❄
WeatherSymbol_WMO_PresentWeather_ww_23.svg	Present weather reported from a manned weather station: Rain and snow or ice pellets not falling as shower(s)	☔❄
WeatherSymbol_WMO_PresentWeather_ww_24.svg	Present weather reported from a manned weather station: Freezing drizzle or freezing rain not falling as shower(s)	☂❄

Programme this afternoon

- 15:30 Coffee
 - Can demonstrators please set up their stands?
- 16:00 Exhibition
 - Please walk around; see map in programme
 - Drinks will be served at 17:00
- 18:15 Coach back into town
- 19:30 Dinner at Carluccio's
 - Please bring your menu card!

