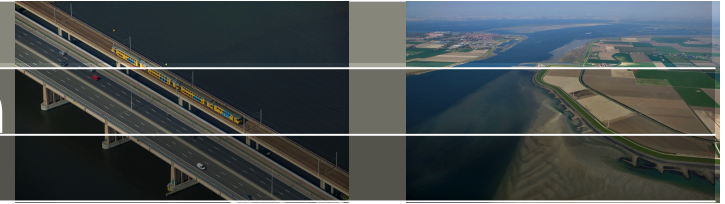# What's New in Delft-FEWS 2012.01 and 2012.02

Delft-FEWS User Days 2012

22nd & 23rd of November 2012

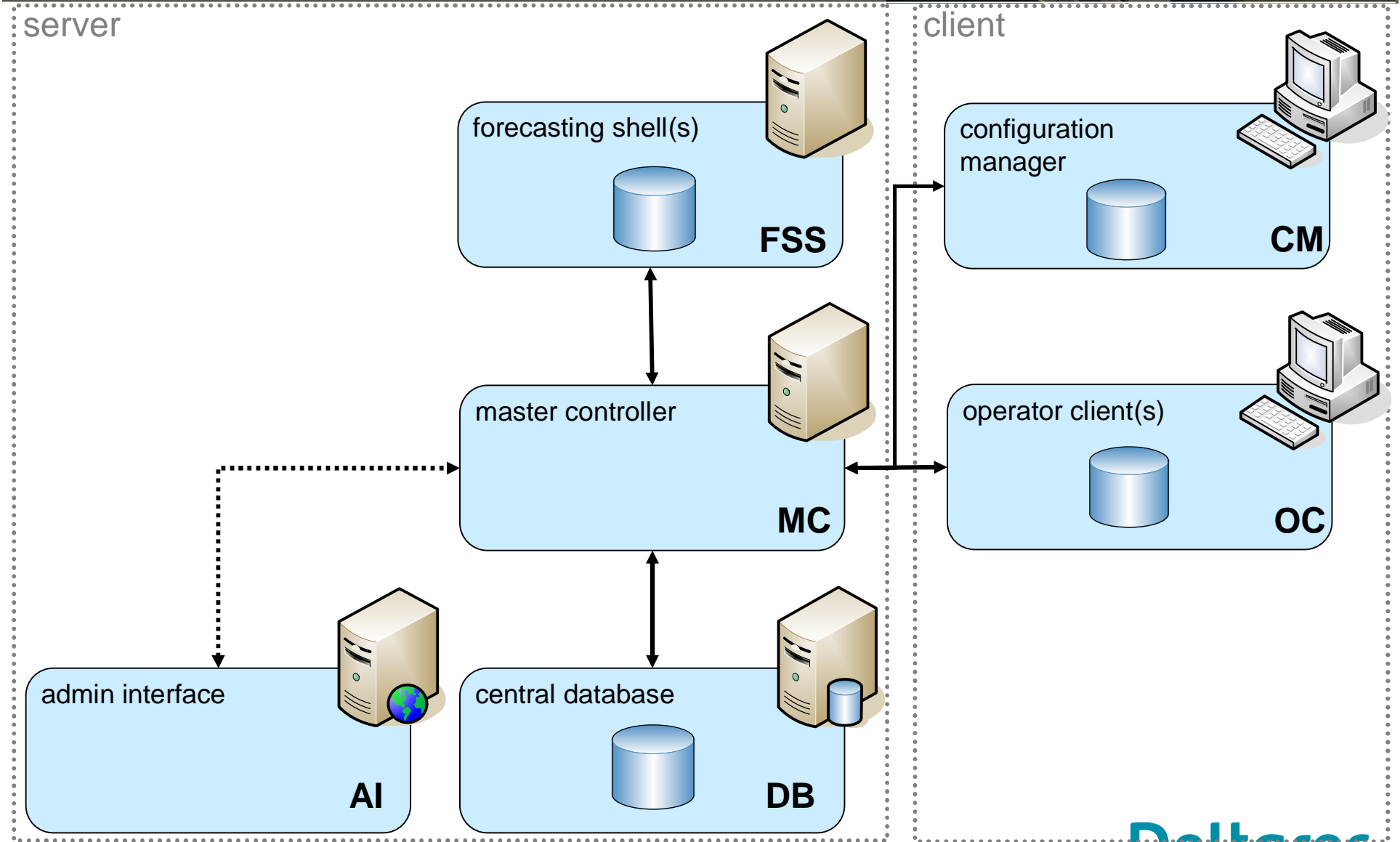30 november 2012

Where to find this information
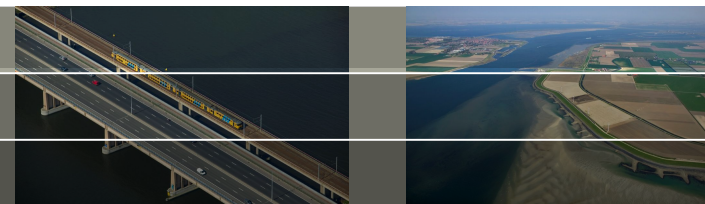
- Release Notes
  - Documentation WIKI → http://fews.deltares.nl
    - > Support Area > Release Notes

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Delft-FEWS system overview (client-server)

server

client

forecasting shell(s)
FSS

configuration manager
CM

master controller
MC

operator client(s)
OC

admin interface
AI

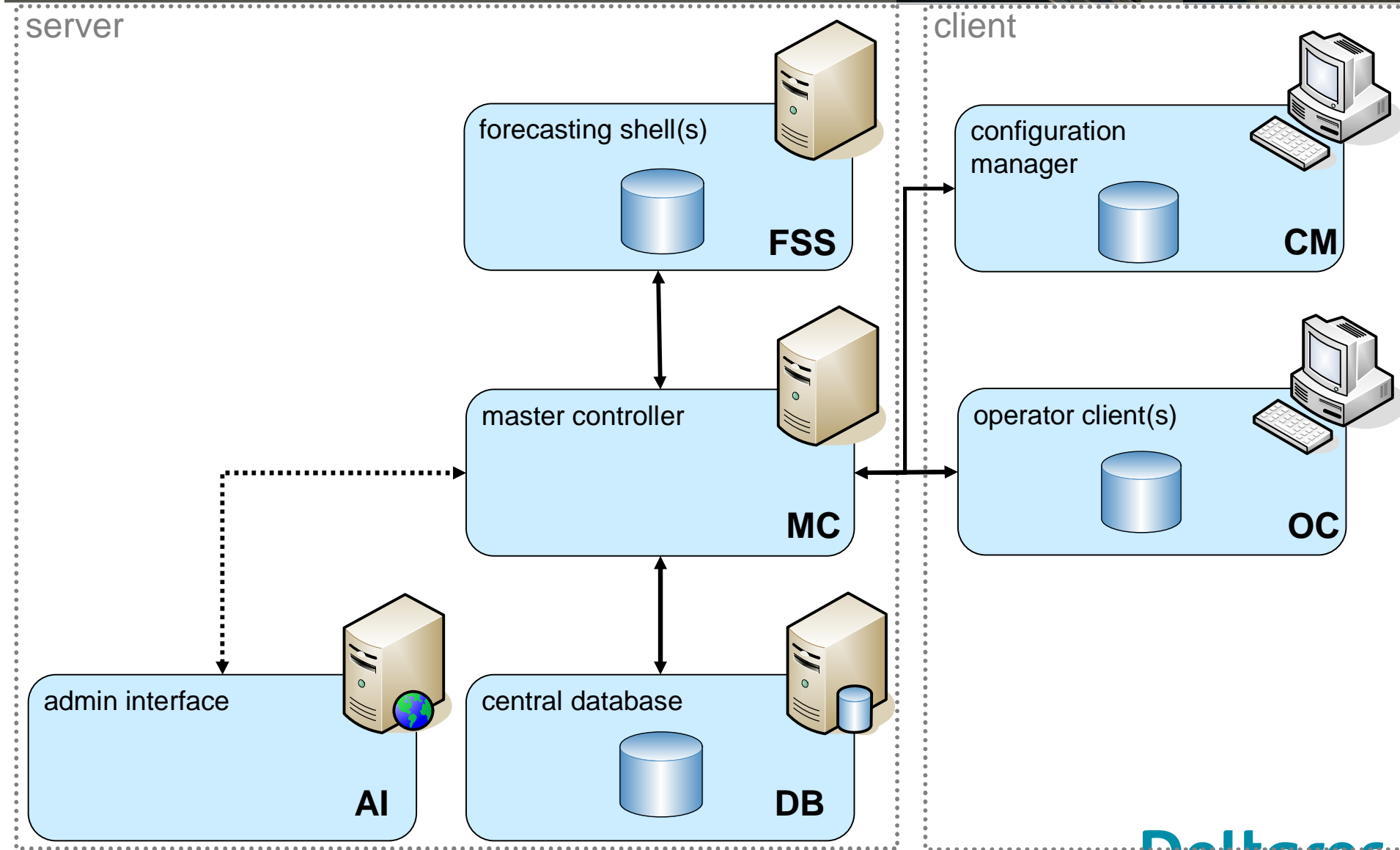central database
DB

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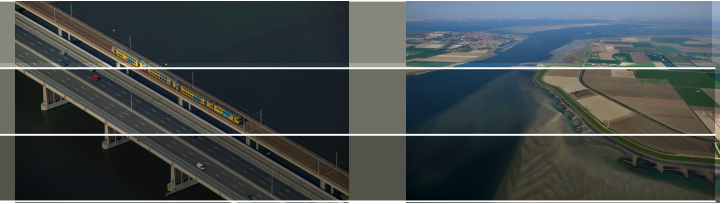30 november 2012

Server side

- Database
  - Derby as 3rd option as localdatastore (FSS,Client) as final *beta*
  - PostgreSQL 9.2 Support
  - Further improvements to *Direct Database Access* and *Open Database*
  - Improved management of warmstates

- Master Controller
  - MC-MC synchronisation as stand-alone process

- FSS
  - Hot-start FSS

- General
  - Improved handling of 'temporary' timeseries
  - Improved logging when workflows end successfully

- Administrator Interface
  - Admin Interface deployment in Tomcat 7
  - Improved layout and sorting mechanism
  - Workflow-FSS mapping added to LogCollectorService

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Delft-FEWS system overview (client-server)

server

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forecasting shell(s) **FSS**

configuration manager **CM**

master controller **MC**

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central database **DB**

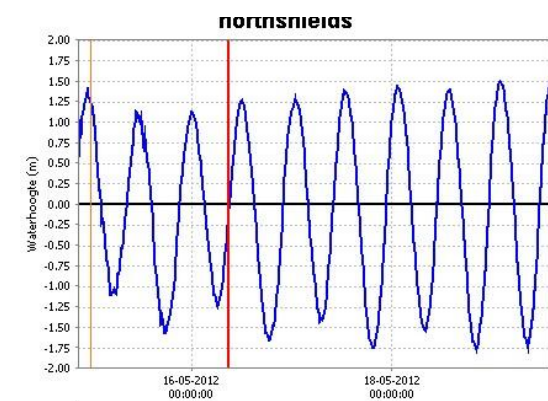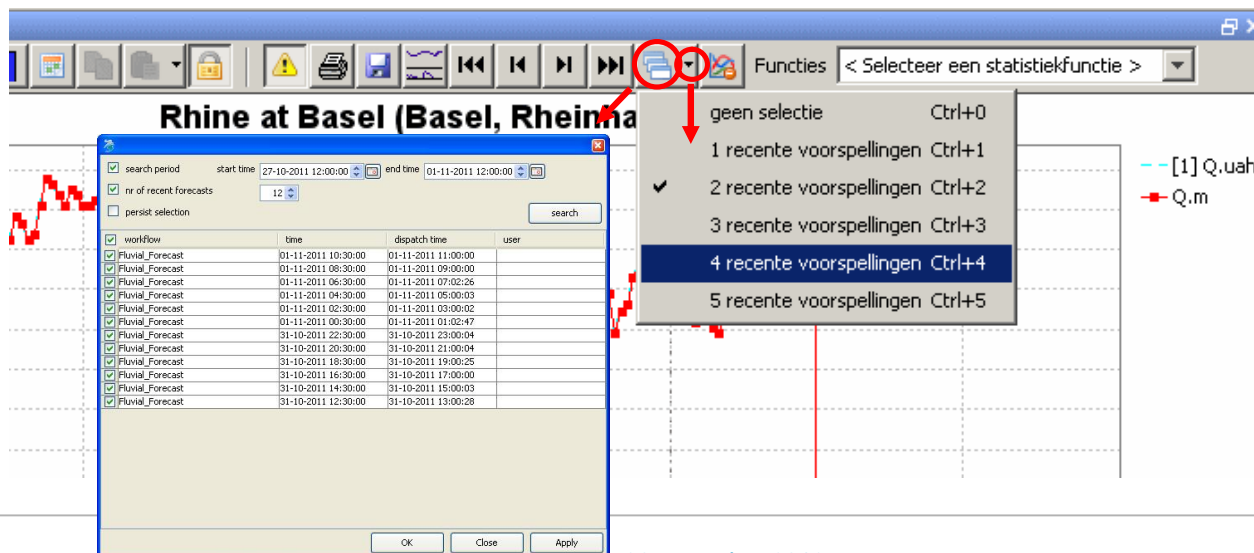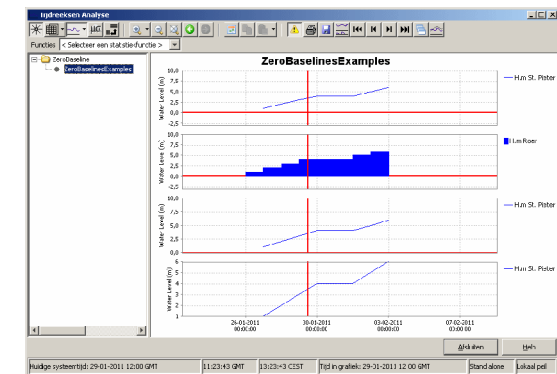30 november 2012

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Explorer

- Icons on the explorer map are no longer grayed out when the system time is automatically adjusted. The system time in the status bar now has a magenta background while the icons are updated.

- Support of the Chinese Language (GUI)

- Display actual values for stations in labels

- F12 option to query/select based on LocationAttributes

- At startup location of localdatastore directory is logged
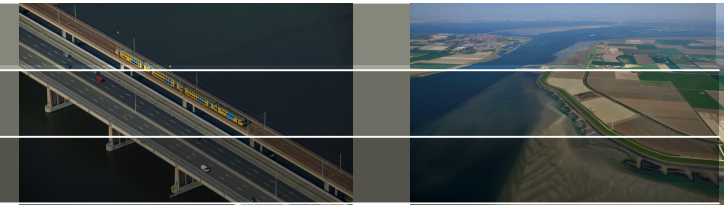
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TimeSeries Display
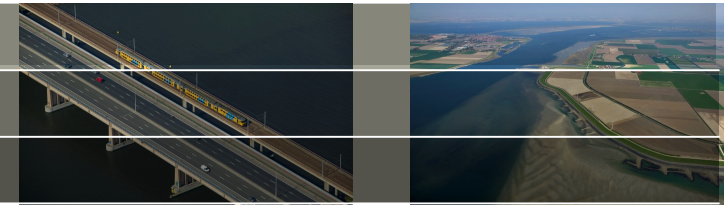
- More compact legend (hide redundant information)
- Show statistics of first timeseries (by default)
- More accentuated 0-line (configurable)
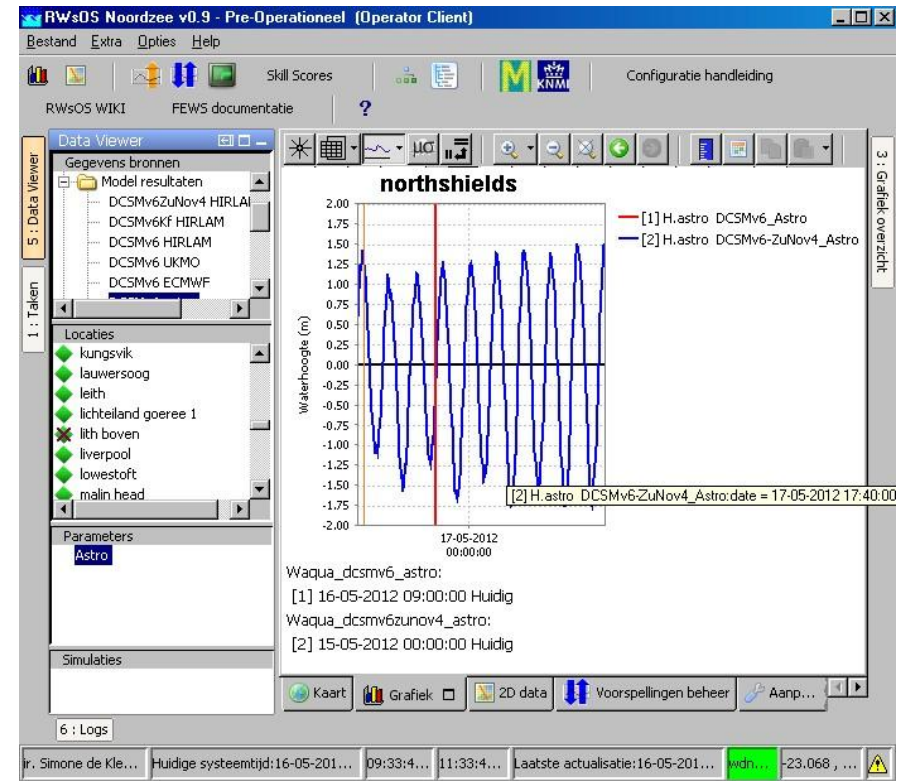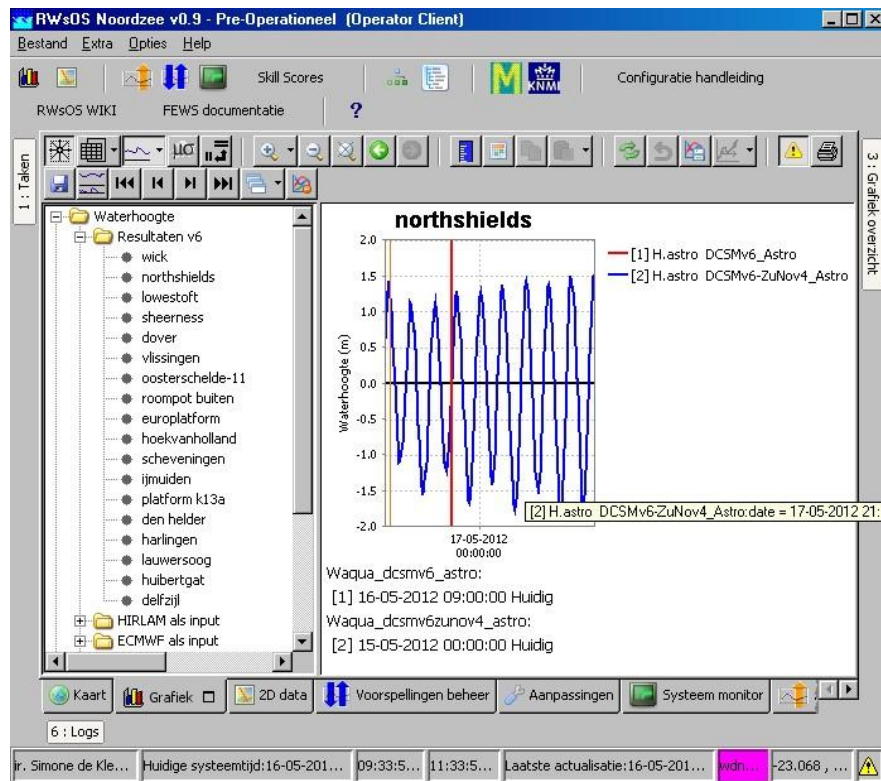- Automatically show more than 1 forecast
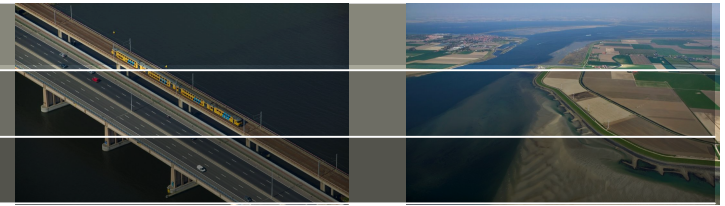
TimeSeries Display

Hot-key combination to switch between the data filter menu and the standard graphs menu in the Graph display (Ctrl-G)
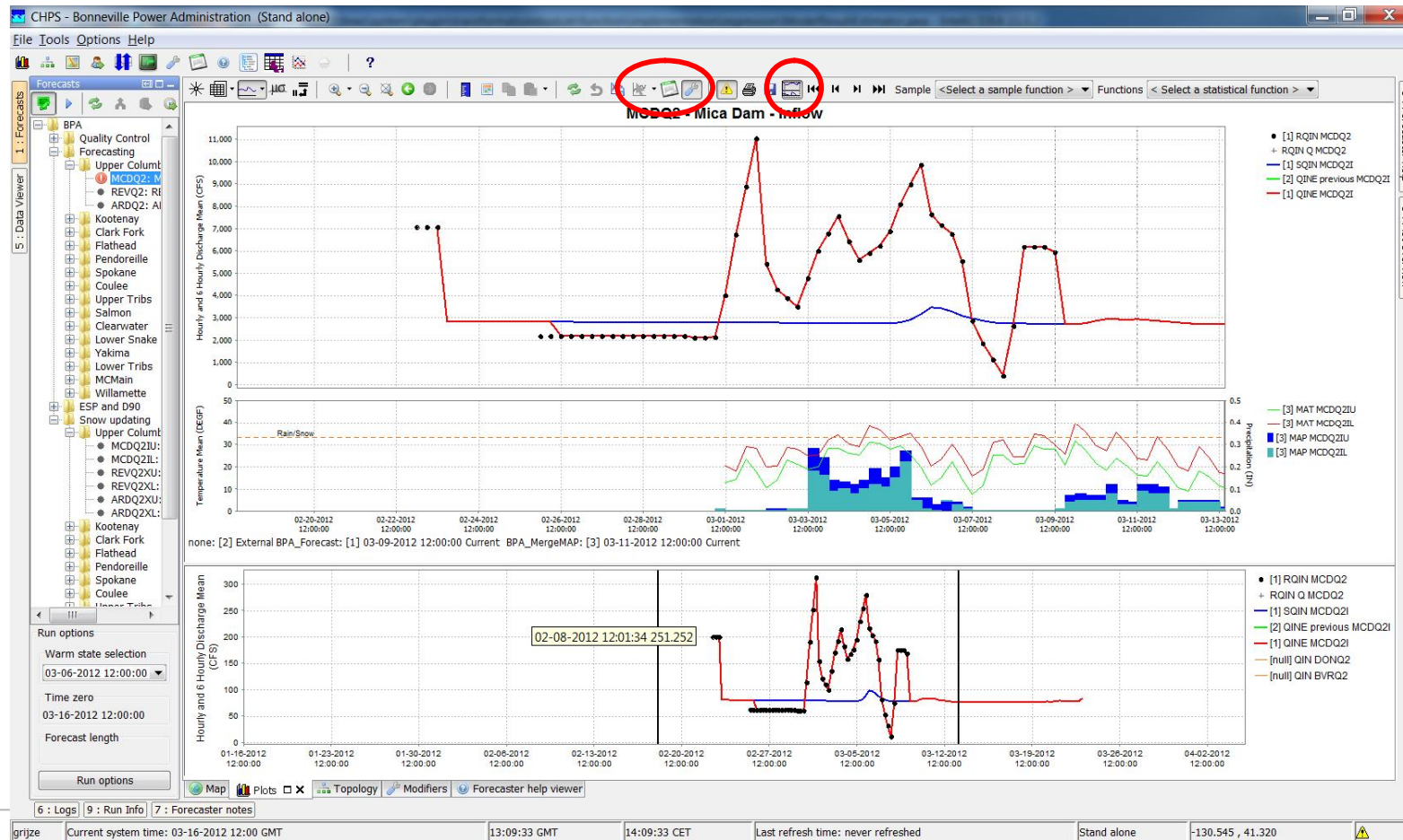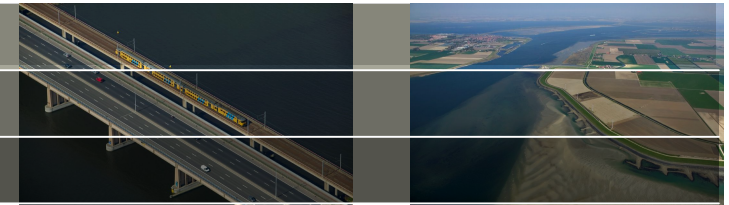
TimeSeries Display

- LongTerm Scroller (improved)
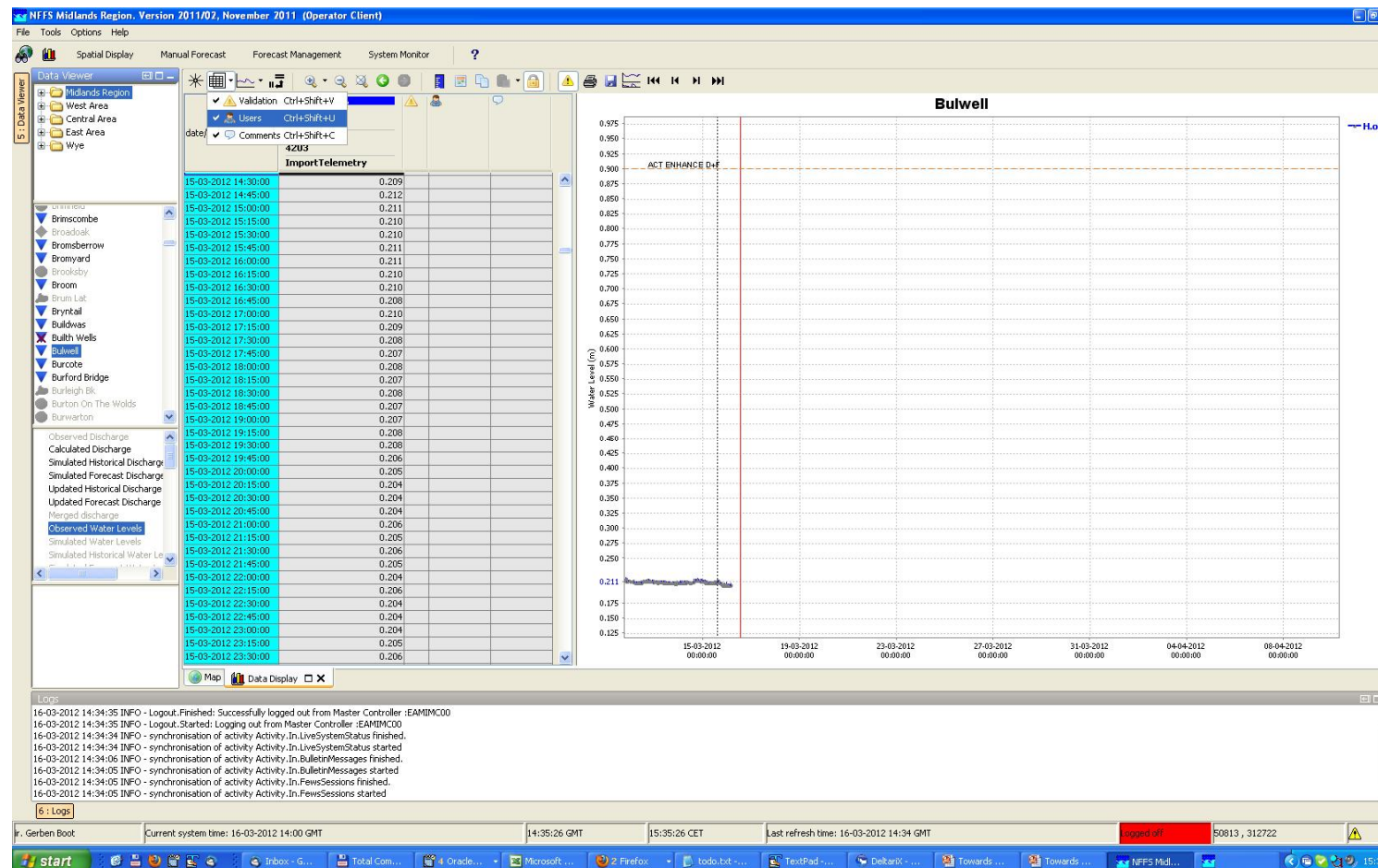- Easy switch between: read-only, edit, modify mode or as 'startup
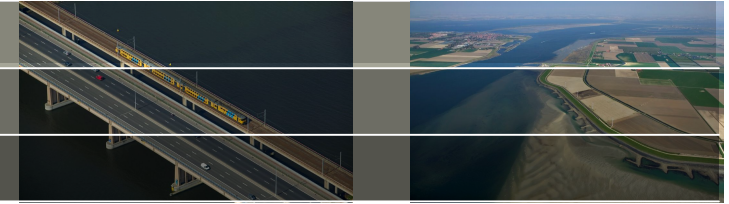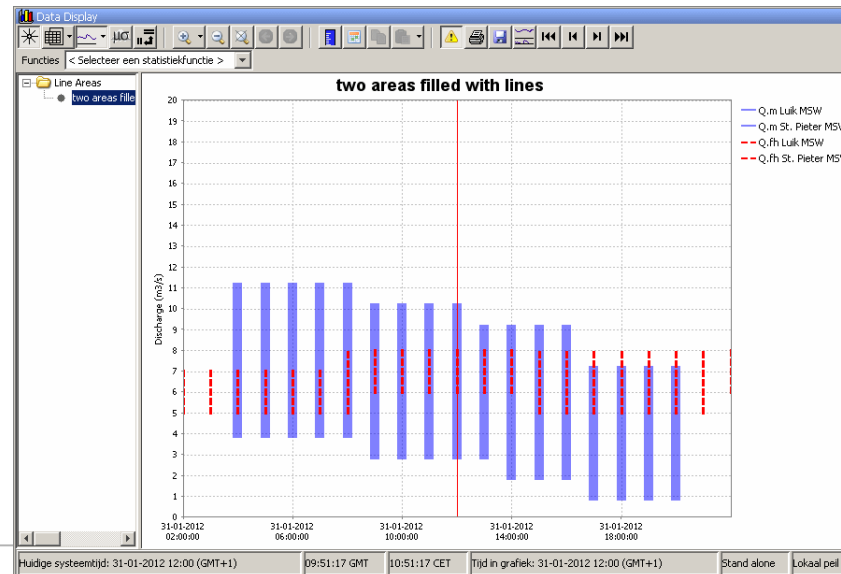

30 november 2012

TimeSeries Display

- Comments, Validation, Users and their History
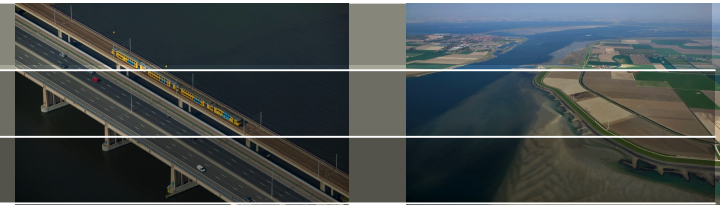
TimeSeries Display

- Area fill also with lines
- Improved interactivity between Spatial Display and Timeseries Display
  - less mouseclicks, more than one location/cell can be opened at the same time
  - Add extra datalayers to either TSD or SD by configuration
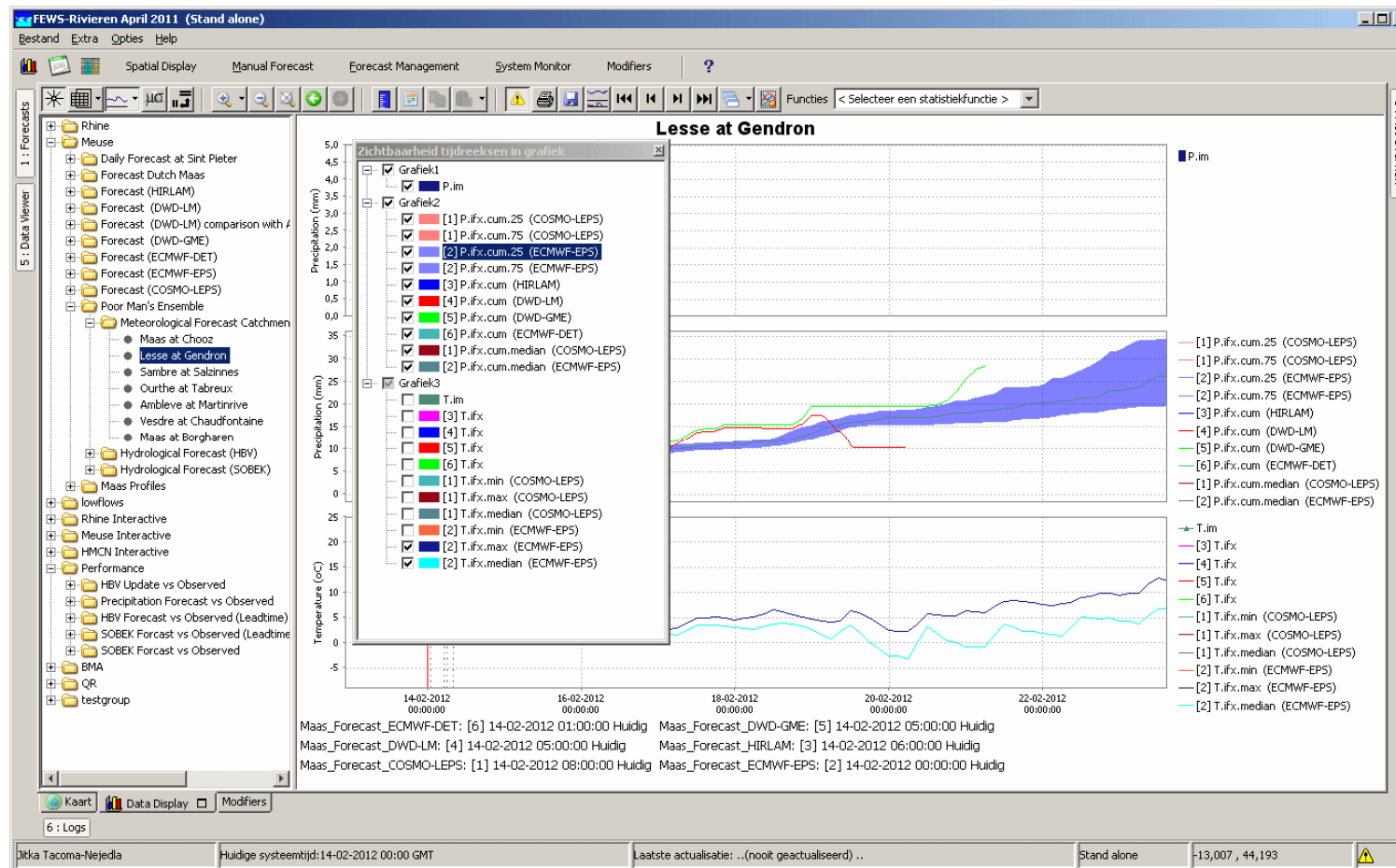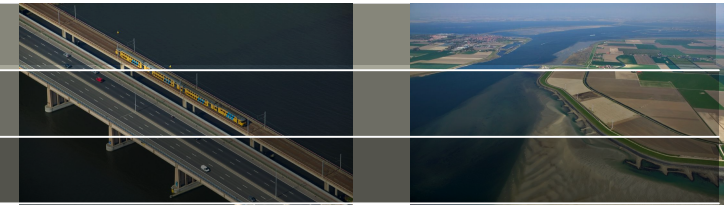 - Open either TS-Display or TS-Editor
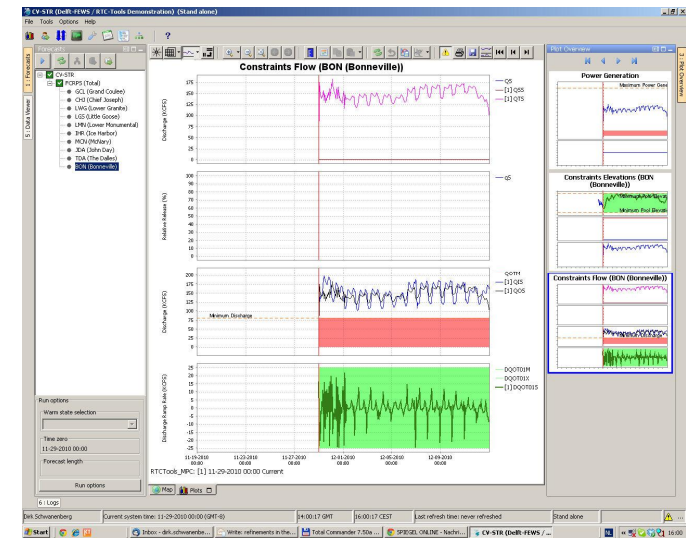
TimeSeries Display

- More flexible in visibility of timeseries (like maplayers)
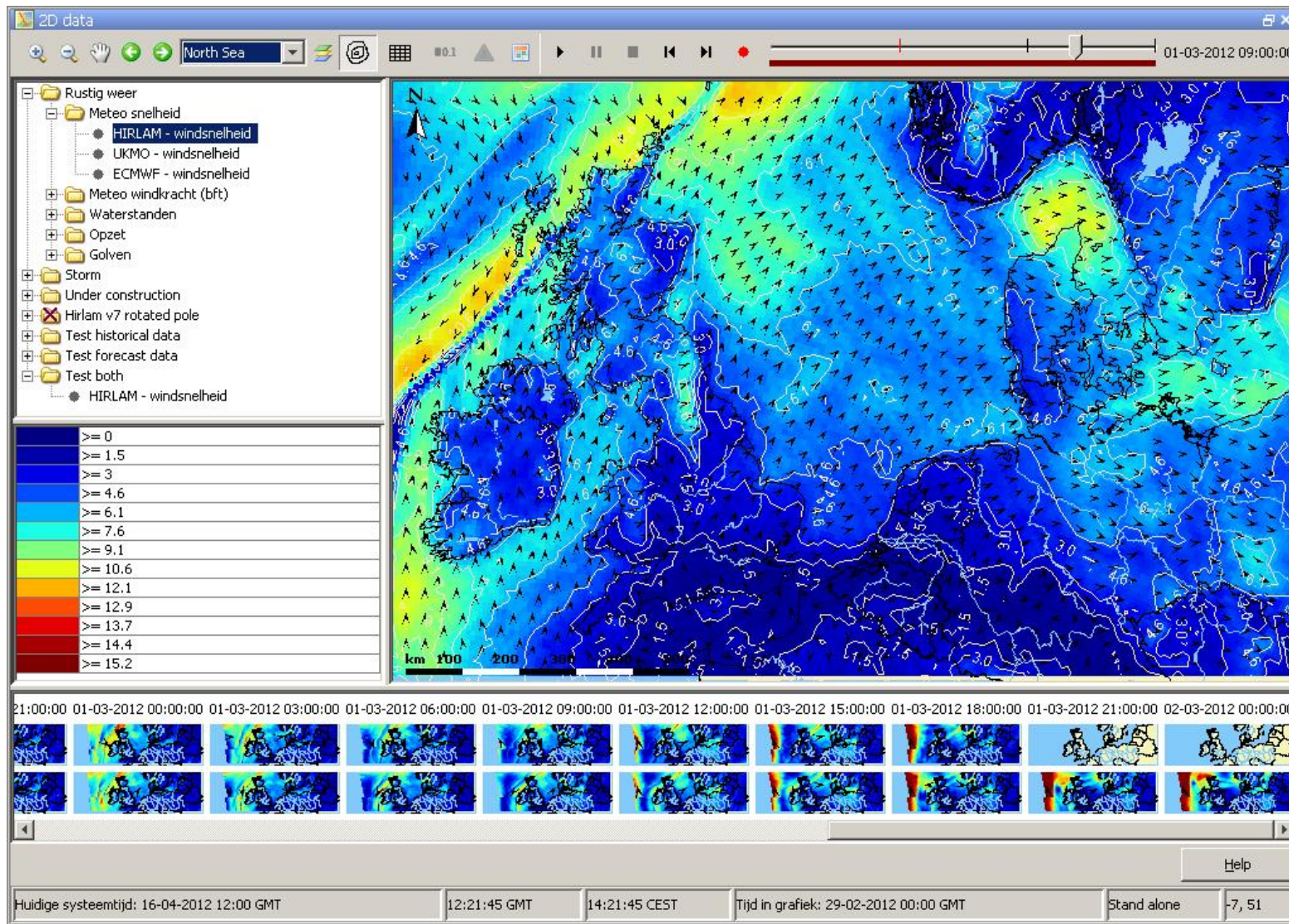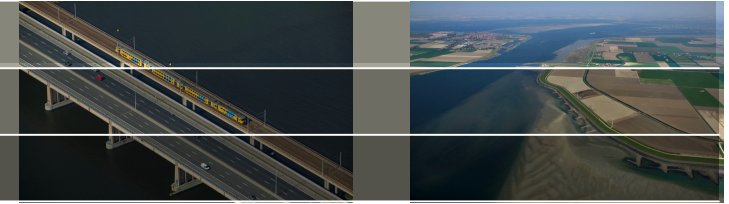
Timeseries Display

- Background coloring outside range of values

- Configurable headers in table

- Timezone info in header

- New icon for shortcuts

- EnsemblePercentileExceedence as new graph type

- Zoom-out button to show the complete series
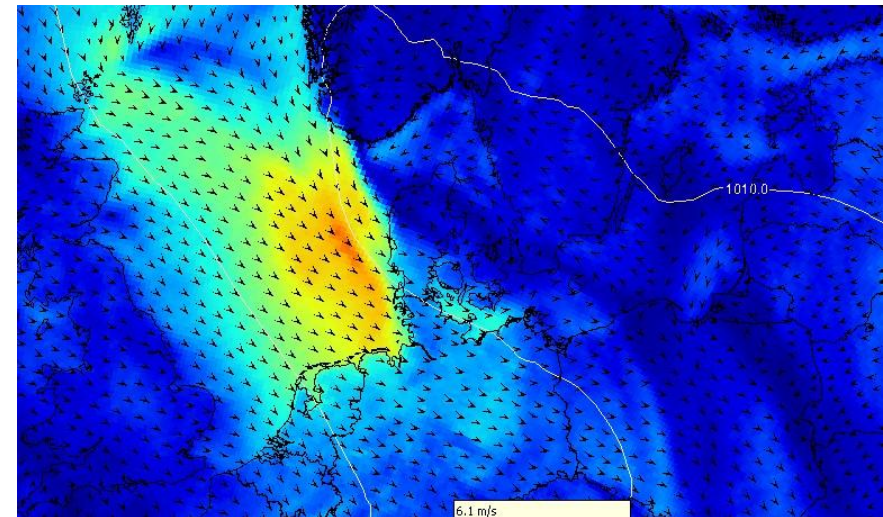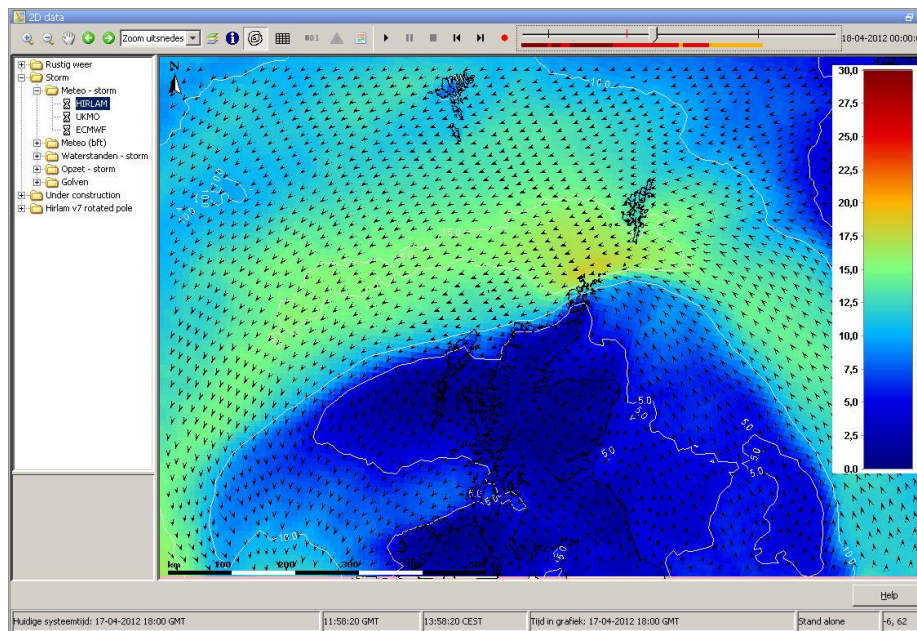
Spatial Display: Spatial Thumbnails (on/off)

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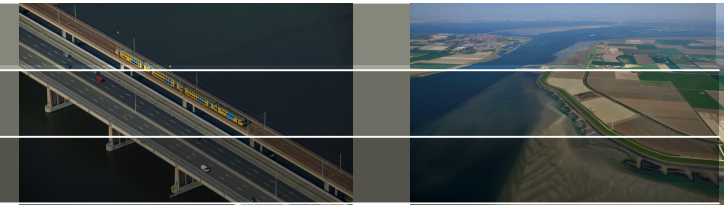# Spatial Display

- Reversible legend
- Fluent legend
- Contourplots icw arrows/colours

Deltares

Spatial Display

- Coloured bar: values or quality flags
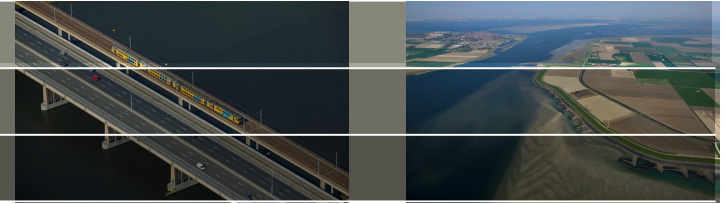
Spatial Display

- Selecting pixels results in adding individual series to same graph
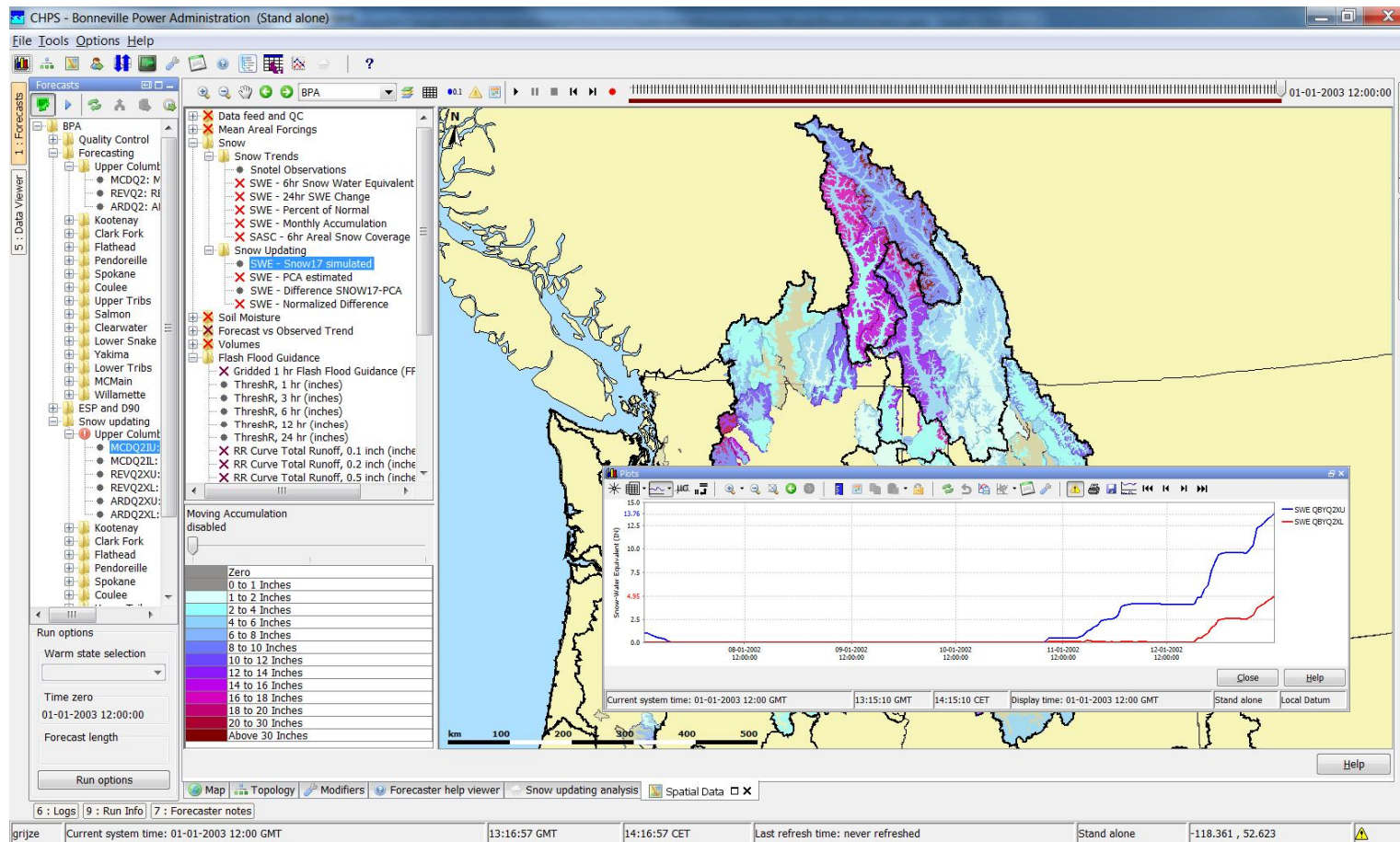
Spatial Display
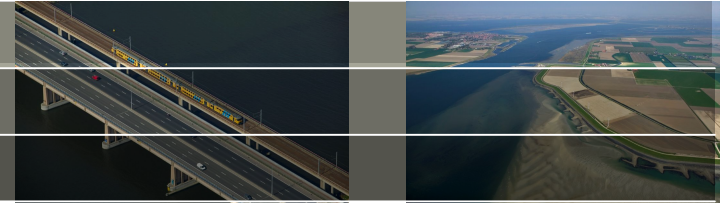
- Improvements
  - Tooltips added to animate buttons
  - Sliders shows "no data timesteps"
  - Save to *png file has date/time on dialog comes up with filename suggestion
  - Attribute value can be used for classification (Icon Size)

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Spatial Display
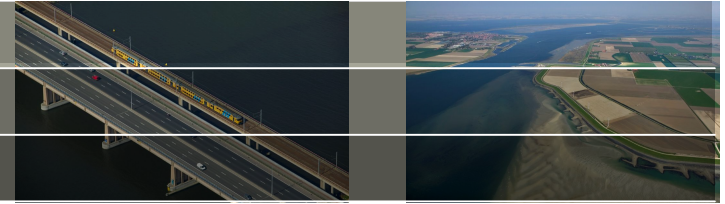
Improved legends/values
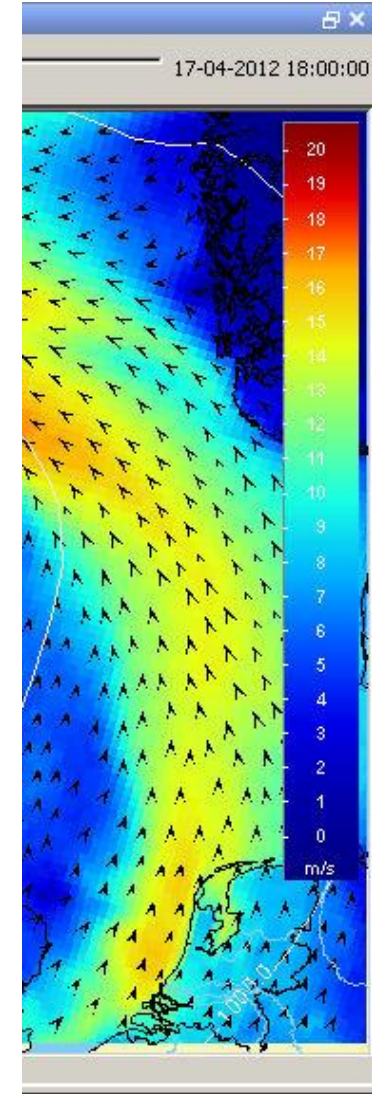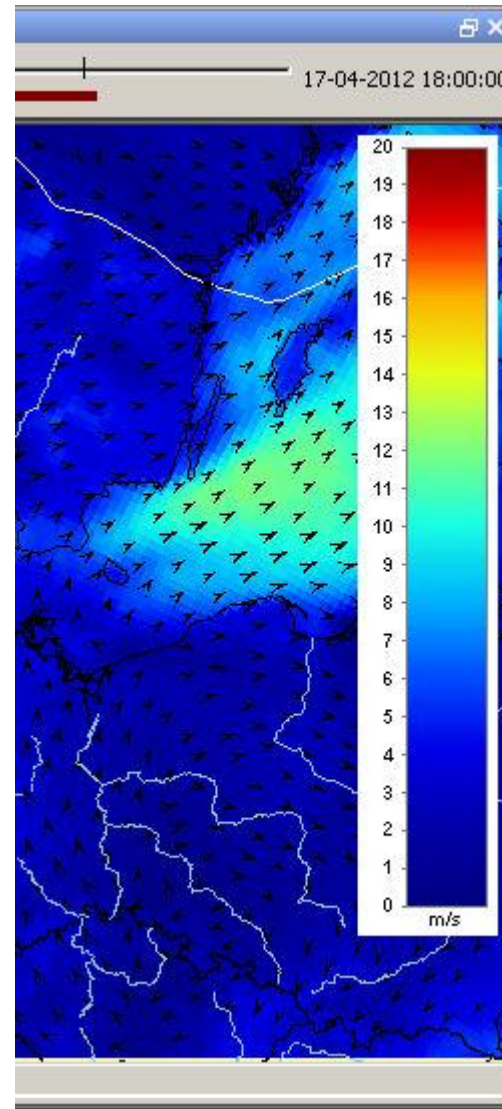
Modifier Display
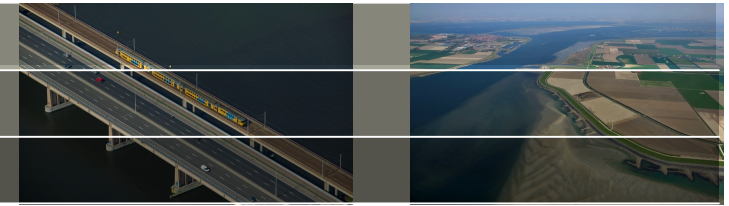
- Temporary change in LocationAttribute
- Add reference timeseries (for comparison) to graph

Other displays

- Schematic Status Display
  - All Report Module Tags also available in Schematic Status Display (e.g MaxValue, MaxWarningLevel)
  - Configuration options to open up
    - > graph and/or table from SSD
    - > (bookmark in) external pdf document
- Modifier Display
- Manual Forecast Dialog
  - Macro button added
  - Scheduled workflow that runs from fixed point in time to dynamic scheduled time
- Database viewer
 - Open up Database Viewer (show all series based on workflows) or as "Timeseries Information" (selection only + hide the workflows list)

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Modules
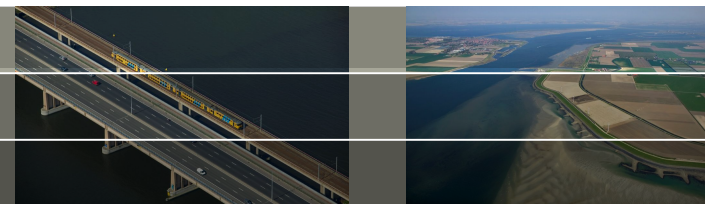
- Secondary Validation
  - Logical expressions possible (and/or)
  - Configuration options:
    - > Compact log message
    - > Only logging without changing the output flag
    - > Use of locationAttributes in logmessages
  - Spatial homogenity test

- Transformation
  - Option to have NaN as output of a UserSimple Transformation
  - Merge: extra-output series showing which input was used
  - Generate ensemble members based on all possible input series (with textual description)
  - Merge transformation based on LocationAttribute
- Watercoach
  - Improved connectivity (PI service)
  - Option to use realistic "delay" before timeseries are visible

Deltares
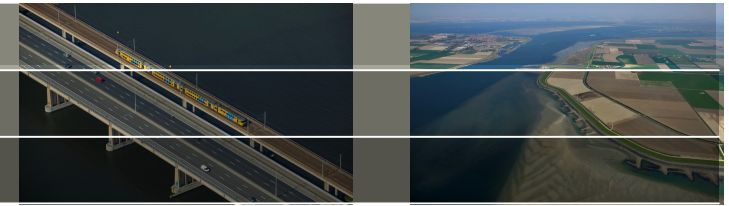
Imports/Exports

- Imports
  - EASE grids
  - NetCDF
    - > data with 1D spectrum time series for separate locations.
  - UMAquo CSV, XML
  - iHistorian (database)
  - Config option to skip 'n' number of lines at header
  - Hessen (D)
  - Inia
  - Climate Indices: TELECONN, NINO, TNI, SOI QBO

- Exports
  - NOOS
  - UMAquo CSV, XML
  - Improved NetCDF (grid location info, CF compliant, standard names, ensembles) as well as (configurable) meta data (CF convention)
  - Irregular grids to NetCDF

- New Data Type: 2D Spectral Data
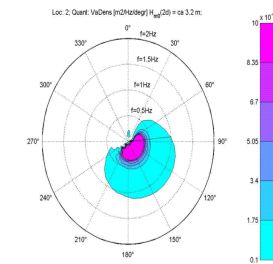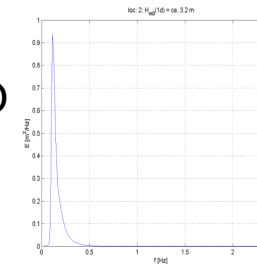
Webservices
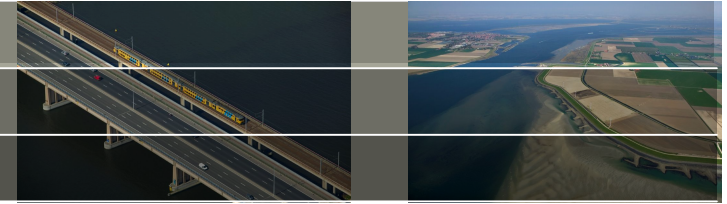
- UMAquo (incl schema checking)
- Improved support of WFS and WMS map layers
- WMS supports *.gif
- The DataAccessComponent is developed to allow direct access to the Datastore. It can be loaded in Tomcat and can be accessed and shared by the webservices hosted in Tomcat.
  It is also possible to use this component in a separate application.

  Communication with the Datastore occurs through an interface.
- Connect to OPeNDAP which uses SSL (Secure Socket Layer) certification
- OPeNDAP url settings can contain a reference to T0 (filename pattern)
- Initial development open API (Transformation, Statistical Functions)
- WaterML standard
- PI Service connection for ControlMaestro

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Other…
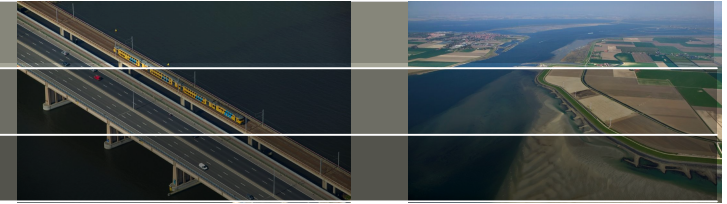
- Log level of validationRuleSets has been made configurable.
- General adapter can loop over locationSets
- Location Attributes references possible in Module Parameter File
- Report Module
  - Improved scaling of graphs
  - Improved header configuration options
  - UnitConversions added
- Tool to generate a shape file (.shp) from a netcdf (.nc) file - <F12>
- User Settings
  - OC stores and re-loads time series selected in time series dialogue and spatial display
- Adapters:
  - GA can write output with headers only
  - D3D adapter improved
  - SOBEK adapter improved
  - SSARR adapter improved

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Miscelleneous
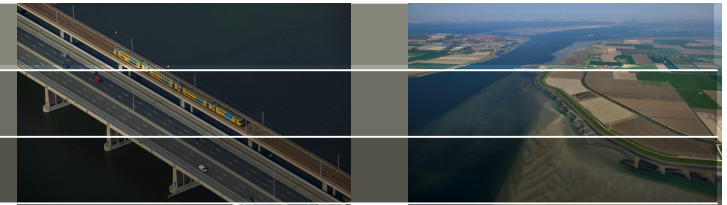
- Config Manager: Compressed storage of MapLayers
- Reports: new table (rowPerLocationHtmlTable) – location based, configurable by the column:
    - Attribute-column: name, threshold value → fixed content
    - Function-column: first max (time), max value (time), avg value etc.→ variable content
    - In combination with a selection (e.g. only those locations which have a certain threshold crossed) → dynamic in length depending on the timeseries
- Reports:
    - spatial snapshot includes legend
    - Export picture as SVG
    - Simplified/Reduced Configuration for location reports
    - Extended configuration (number, fontsize) of ticks in graphs
- Rolling Barrel Performance (icw initial synch)
- Separte Data Management Module (DIM)
- <F5> (Refresh) now works for docking mode
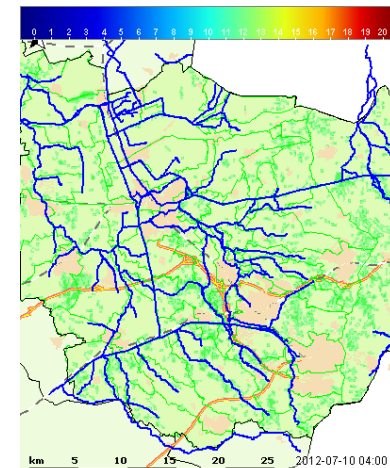
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(Secondary) Validation
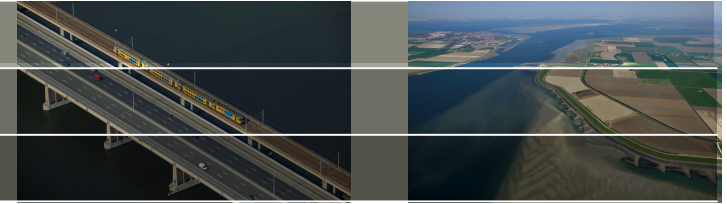
- Adjusting data quality flags (purpose)
  - Logical expressions
- Spatial Homogenity (spatial relations with neighbouring stations)
- Spatial Search extended with quadrant search
- Mann Kendall (trend in telemetry signals)
- Quality Flags: 'Persistence Unreliable' – Start/End poles of an 'unreliable data period'

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- Query functionality on attributes
  - Explorer (<F12>)
  - Grid display (Standard option)
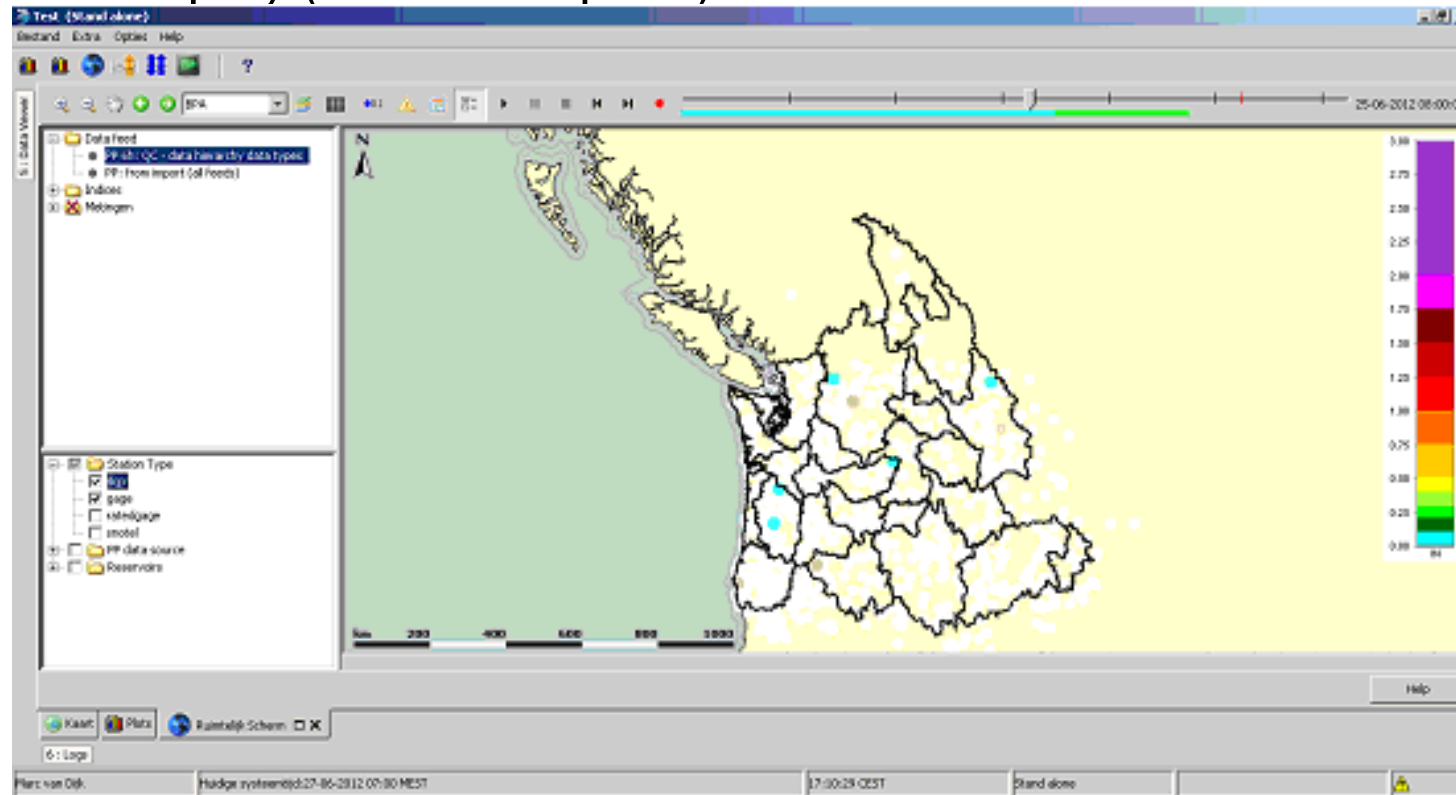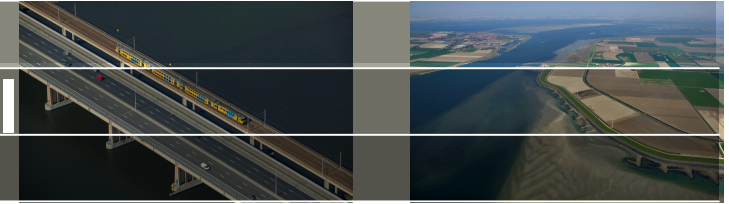
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Delft-FEWS Community Portal

- External request for platform
- Promised by us…
- Deltares Software Strategy
- Open Software (≠ open source)
- www.delft-fews.nl (.eu / .com)
- Downloadable package
  - License (non-commercial, non-operational)
  - Introduction course
- Discussion Forums
- Papers, Posters, Showcases
- Background reading about FEWS

research & demonstration version only

Delft-FEWS

Delft-FEWS community portal now live at www.delft-fews.nl

With an increase in end-users, implementations and fields of application, the need for a more structural and easy accesible way of sharing knowledge and experience became evident. This new portal provides the user community, intermediairies and future clients practical information about - and a means for sharing knowledge on - Delft-FEWS.

The portal contains a downloadable version of Delft-FEWS, along with course material and test data. There is also a large collection of posters, papers and showcases for those who want to explore the broad range of applications of Delft-FEWS. On the Discussion Forum questions to the user community can be posted and experiences shared.

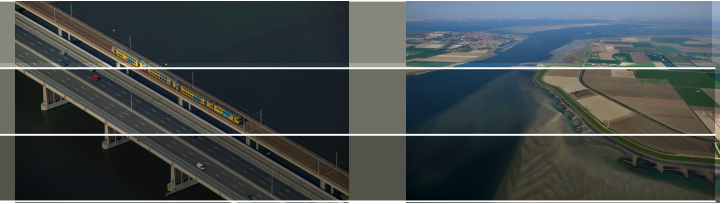We invite you to join us on the Delft-FEWS Community Portal.
**Share your experiences!
Post your questions!**
And be part of the Delft-FEWS community

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- New Data Archive

- Data Conversion Module (FEWS Service)

- Interactive Adapter (remote control in calculations)

- Coupling with sewer system models (WANDA)

- On-the-fly statistics in database viewer

- Reducing configuration by using templates & looping concepts

- Water Information Systems (joint investments of about 5 NL waterboards)

    - Geographic version management

    - Running workflows for a "period" or "selection" only

    - Conditional Aggregation rules

    - Memory management improvements

- …many more

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