



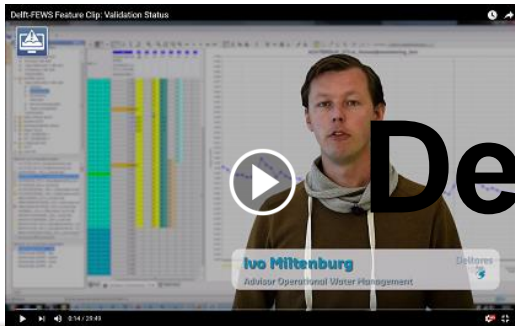
# Delft-FEWS New Developments

Delft-FEWS User Day NL 2016

14th of June 2016

# Introductie

- 10th Edition...(!)
- Community: what do we/you know about each others' new features...
  - Several Top-10's
- What's new: Community Communication
- Outlook 2016-2017



## DeltA-FEWS 2020





# WATERBOARD TOP 10



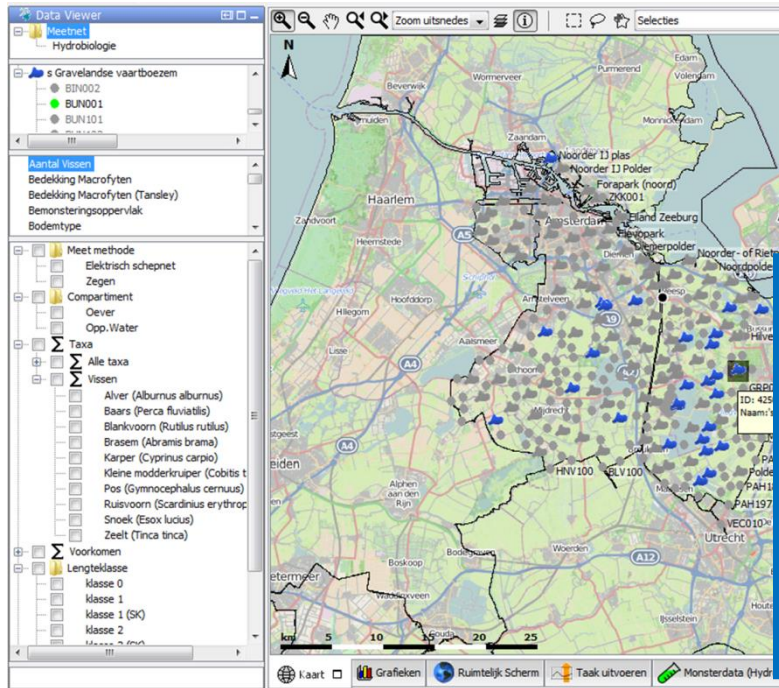
13 juli 2016

**Deltares**

# Sample Data editable

10

- Sample data can be set to 'editable'



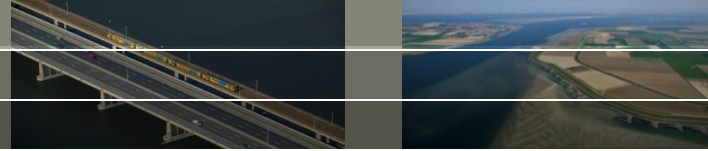
| Tijd           | Monster Id | Location N... | Analist    | Bron    | X-coördina... | Y-coördina... |
|----------------|------------|---------------|------------|---------|---------------|---------------|
| 02-06-2009 ... | 2009154    | PZH102        | WP_CAS_ZUY | TABHUID | 116540        | 4667;         |
| 08-06-2009 ... | 2009159    | GWV171        | WP_CAS_ZUY | TABHUID | 123790        | 4648;         |
| 08-06-2009 ... | 2009161    | GWV172        | WP_CAS_ZUY | TABHUID | 120380        | 4655;         |
| 08-06-2009 ... | 2009163    | GWV174        | WP_CAS_ZUY | TABHUID | 126060        | 4689;         |
| 08-06-2009 ... | 2009160    | WV0031        | WP_CAS_ZUY | TABHUID | 121872        | 4649;         |
| 11-06-2009 ... | 2009155    | PZH103        | WP_CAS_ZUY | TABHUID | 115440        | 4662;         |

| Monster Id | Locatie-naam | Parameter-naam | Analyse code | Taxa                      | Analyseprotocol |
|------------|--------------|----------------|--------------|---------------------------|-----------------|
| 1          | 1            | 1              | 1            | 23                        | 1               |
| 2009163    | GWV174       | Planten %      | PTB          | Mentha aquatica (Wat...   | SPV7050A        |
| 2009163    | GWV174       | Planten %      | PTB          | Glyceria fluitans (Man... | SPV7050A        |
| 2009163    | GWV174       | Planten %      | PTB          | Epilobium hirsutum (H...  | SPV7050A        |

```
<filter id="Hydrobiologie">
  <relativeViewPeriod start="-100000" end="0" unit="day"/>
  <editable>true</editable>
  <locationConstraints>
    <idStartswith prefix=""/>
  </locationConstraints>
  <parameterConstraints>
    <idStartswith prefix=""/>
  </parameterConstraints>
  <qualifierConstraints>
    <idStartswith prefix=""/>
  </qualifierConstraints>
</filter>
```





- Option added to Grid Display to extend the last value of a *non-equidistant* time series
- Option only appears in case of non-equidistant time series

● Filling of Soil Storage (Filling.)  
● Available Soil Storage (SS.fh)  
● Snow Depth (SD.fh) [mm]  
● Snow Water Equivalent (SWE)

Last Value

|              |
|--------------|
| no snow      |
| < 10 mm      |
| 10 - 25 mm   |
| 25 - 50 mm   |
| 50 - 100 mm  |
| 100 - 200 mm |
| 200 - 300 mm |
| 300 - 400 mm |

Lyor





# Attribute filter available in Explorer



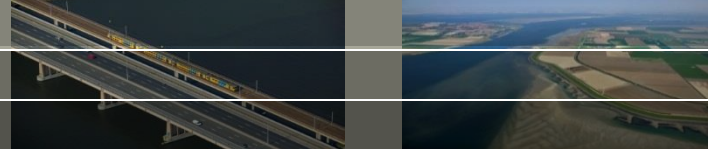
- Filter on attributes: promoted from <F12> to configuration;
- Shows trees based on configured (location, parameter, qualifier) attributes;

```
<explorerTask name="Attribute Filter">  
  <predefinedDisplay>attribute filter</predefinedDisplay>  
  <toolbarTask>false</toolbarTask>  
  <menubarTask>false</menubarTask>  
  <toolwindow>true</toolwindow>  
  <loadAtStartup>true</loadAtStartup>  
</explorerTask>
```

6 : Logs  
Marijn Swenne | Huidige systeemtijd:01-01-2013 00:00 MET | 15:42:39 CET | Stand alone | 137746 , 498002 | 0.0 MB/s | 516 MB



# Group by Function



- Configuration option for a 'group by' function for attributes to build up the Filter tree automatically

```
<filter id="groupByParameterAttribute">
  <relativeViewPeriod start="-100000" end="0" unit="day"/>
  <parameterConstraints>
    <idStartsWith prefix=""/>
  </parameterConstraints>
  <groupBy>
    <parameterAttributeId>InternalParameterId</parameterAttributeId>
  </groupBy>
</filter>
```



# Wildcard for qualifiers configuration and aggregation



- Configuration reduction;
- Only mention the qualifiers NOT in the aggregation;

```
<timeSeriesSet>
  <moduleInstanceId>Import_ECO_CSV</moduleInstanceId>
  <valueType>sample</valueType>
  <parameterId>VSA_n</parameterId>vis aantal
  <qualifierId>AC_8</qualifierId> analyse code
  <qualifierId>AP_21</qualifierId> analyse protocol
  <qualifierId>CO5</qualifierId> Opp.water
  <qualifierId>GH_1</qualifierId> grootheid
  <qualifierId>LK_10</qualifierId> lengteklasse5
  <qualifierId>TWN_1767</qualifierId>Snoek
  <qualifierId>WM_1</qualifierId> gemeten
  <locationId>PKH381</locationId>
  <timeSeriesType>external historical</timeSeriesType>
  <timeStep unit="nonequidistant"/>
  <readWriteMode>read only</readWriteMode>
</timeSeriesSet>
```

```
<timeSeriesSet>
  <moduleInstanceId>Import_ECO_CSV</moduleInstanceId>
  <valueType>sample</valueType>
  <parameterId>VSA_n</parameterId>
  <qualifierId>CO5</qualifierId>
  <qualifierId>WM_1</qualifierId>
  <locationSetId>Meetnet</locationSetId>
  <timeSeriesType>external historical</timeSeriesType>
  <timeStep unit="nonequidistant"/>
  <qualifierAggregation>sum</qualifierAggregation>
  <readWriteMode>read complete forecast</readWriteMode>
</timeSeriesSet>
```





# Timeseries Snapshot

5

- TimeSeries Status Snapshot stores the (data-availability) status of the location;
- To prevent long load times (WIS systems);
- Snapshot can be updated in a scheduled workflow or by <F12> + V;
- Snapshot found → snapshot used and T0 logged;

explorer version="1.1" xmlns="http://www.wldelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.wldelft.nl/fews http://fews.wldelft.nl/schemas/version1.0/explorer.xsd">  
<systemInformation>  
<description>WIS database</description>  
<systemCaption>\$EXPLORER\_SYSTEMCAPTION\$</systemCaption>  
</systemInformation>  
<timeSeriesStatus>remotely updated snapshot</timeSeriesStatus>



# Data traceability

4

- Data traceability (NL: dataherleidbaarheid): highlighting usages of 'selected' timeseriesSets in different workflows;
- TimeSeries Display (select timeseries) and highlight all usages in Workflow Navigator
  - **Bold:** Location + Parameter
  - Normal: Location
  - Grey: no usage
- Inspect details
- New selection + repeat

| Locatie-id  | Locatie-naam | Parameter-groep | Parameter-naam | Module Instance | X             | Y | Tijdsreef-type |         |
|-------------|--------------|-----------------|----------------|-----------------|---------------|---|----------------|---------|
| WAQUA_IJ... | WAQUA_IJ...  | hoogte          | H.meerpeel     | meerpeel        | Geneveer_M... | 0 | 0              | gsmulat |







# Resampling Dialog



# 2

In TSD: opti

Time series resampling

Time step

- minute
- 5 minutes
- 10 minutes
- 15 minutes
- 30 minutes
- hour
- 2 hour
- 3 hour
- 6 hour
- 12 hour
- day
- week
- month
- year

Calculation method

- minimum
- maximum
- mean
- sum
- instantaneou
- automatic

Show original time series

Ignore missings

OK Reset Cancel

FEWS WS-HHK (Stand alone)

Bestand Extra Opties Help

Soort waarneming: HHSK

Functies < Selecteer een statistiekfunctie >

|                   | A                 | B                 | C                 | D                 |
|-------------------|-------------------|-------------------|-------------------|-------------------|
| chloride (mg/l)   | chloride (mg/l)   | chloride (mg/l)   | chloride (mg/l)   | chloride (mg/l)   |
| Diepte -2.5 BRB25 | Diepte -2.5 BRB25 | Diepte -2.5 BRB25 | Diepte -2.5 BRB25 | Diepte -2.5 BRB25 |
| ImportM, MW       | ImportM, MW       | ImportM, MW       | ImportM, MW       | ImportM, MW       |
| MINIMUM (         | MAXIMUM (         | MINIMUM (         | MAXIMUM (         |                   |

Locatie: Arcen, Barendrecht, Beerenglaat, Bergschenhoek, Berkhout, Berrisse Zuidla, Boskoop, Brienoordbr, Cabauw, De Bilt, De Zaa, Deelen, Delft, Den Helder/De, Dordrecht, Eindhoven

Parameter: chloride (mg/l), dauwpunttemper, debiet (m3/s), evaporatie (mm), getij astronomisch, globale straling (k, horizontaal zicht (r, luchtdruk (Bar), luchttemperatuur, maximale windst, neerslag (mm/Ar)

Diepte -2.5 mNAP

Intervallense

- 30 minuut
- 2 uur
- 3 uur
- 6 uur
- 12 uur
- dag
- week

- minimum
- maximum
- gemiddelde
- som
- instantaan
- automatisch

Toon originele tijdstap

Negeer ontbrekende waarden

ok reset annuleer









# WATERSTAAT TOP 10



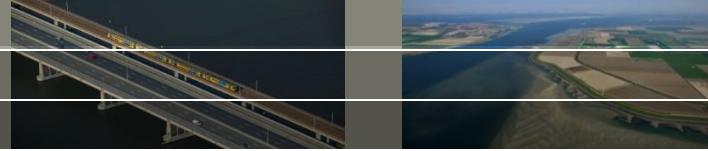
13 juli 2016

**Deltares**

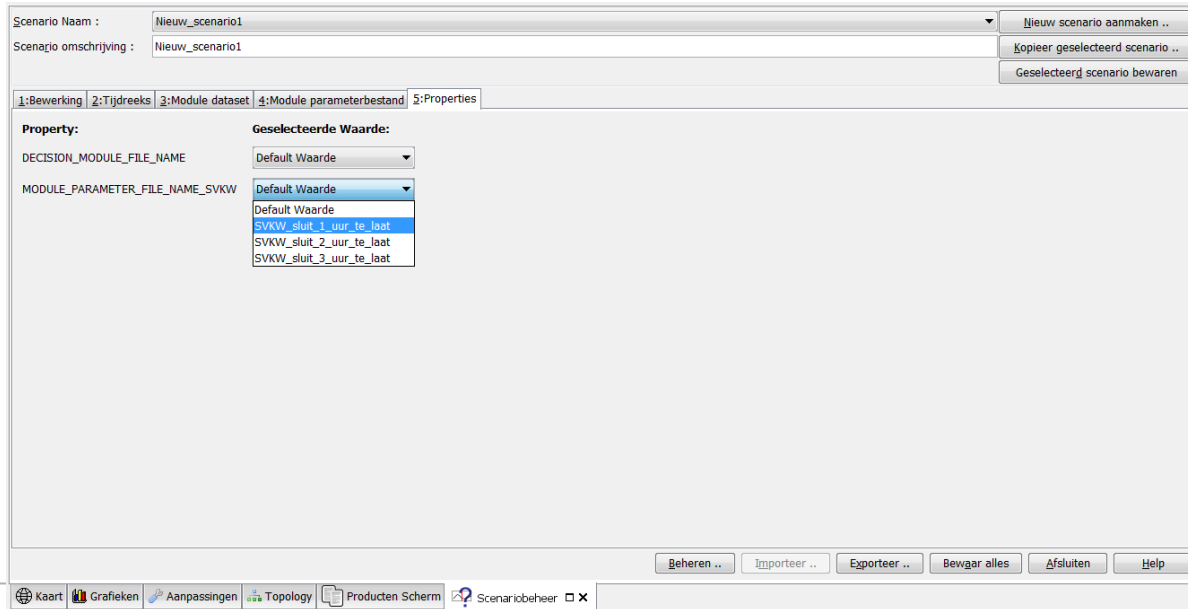




# Use Templates In What-ifs



- Replace names what-if xml files with self explaining names
- Applies to moduleConfigFile, moduleParameterFile or moduleDatasetFile
- Replace template property with configurable string in list



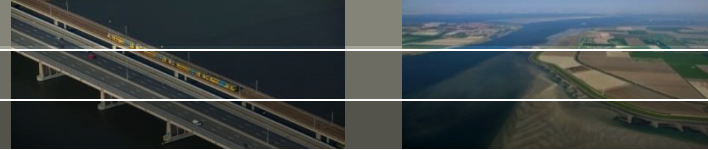
# Security & Traceability Improvements (BIR)



- Traceability changes in application
- Replace Jboss 4 with new component
- Connect with Https also for ActiveMQ
- Connect to Matroos using Https
- Traceability changes scheduling Admin Interface



# Import Module for Aqualarm



- Import directly from webserver
- Observations waterquality parameters
- Predefined period
- Predefined parameters and locations (now Lobith and Eijsden)

```
<import>
  <general>
    <importType>Aqualarm</importType>
    <serverUrl>http://www.aqualarm.nl</serverUrl>
    <connectionTimeOutMillis>20000</connectionTimeOutMillis>
    <relativeViewPeriod unit="day" start="-10" end="0" startOverrulable="true" endOverrulable="true"/>
    <idMapId>IdAqualarm</idMapId>
    <importTimeZone>
      <timeZoneName>GMT+2</timeZoneName>
    </importTimeZone>
  </general>
  <timeSeriesSet>
    <moduleInstanceId>ImportAqualarm</moduleInstanceId>
    <valueType>scalar</valueType>
    <parameterId>H.observed</parameterId>
    <locationId>Eijsden</locationId>
    <timeSeriesType>external historical</timeSeriesType>
    <timeStep unit="nonequidistant"/>
    <readWriteMode>add originals</readWriteMode>
  </timeSeriesSet>
</import>
</timeSeriesImportRun>
```



# Admin Interface schedule monthly tasks



## Main menu

- » System Status
- » Files
- » Forecast Tasks
  - » Scheduled Tasks
  - » Running Tasks
- » Workflows and FSSs
- » User Administration
- » System Control
- » Database Analysis

Running on WDRVMC00

Logged on as ADMIN  
» Log Off

## Forecast Tasks

### Schedule New Task

Description

Tag

Workflow ID

What-if Scenario

Start Time  Date: ddMM/yyyy, leave blank to run as soon as possible  
 Time: HH:mm GMT

End Time  Date: ddMM/yyyy, leave blank to run indefinitely  
 Time: HH:mm GMT

- Once only
- Fixed Interval
- One or more days each month

e.g. 8:09 or 18:17:35

Repeat Mode

|    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  |
| 8  | 9  | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 |    |    |    |    |

selected days of month

Shift To  hour(s) Not used for one-off tasks

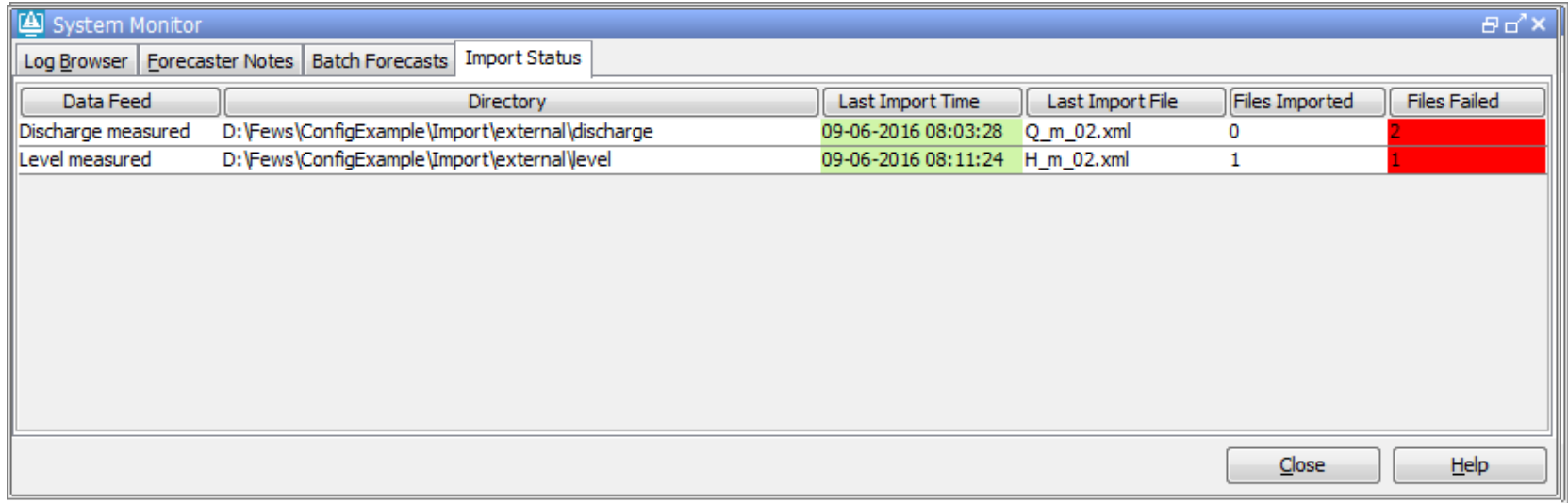
Forecast Length  hour(s) Overrules the pre-defined forecast length

Expiry Time  MC Default Current MC Default is 10 days



# Import Status showing Failed Files

5



The screenshot shows a window titled "System Monitor" with a tabbed interface. The "Import Status" tab is active, displaying a table with the following data:

| Data Feed          | Directory                                       | Last Import Time    | Last Import File | Files Imported | Files Failed |
|--------------------|---|---------------------|------------------|----------------|--------------|
| Discharge measured | D:\Fews\ConfigExample\Import\external\discharge | 09-06-2016 08:03:28 | Q_m_02.xml       | 0              | 2            |
| Level measured     | D:\Fews\ConfigExample\Import\external\level     | 09-06-2016 08:11:24 | H_m_02.xml       | 1              | 1            |

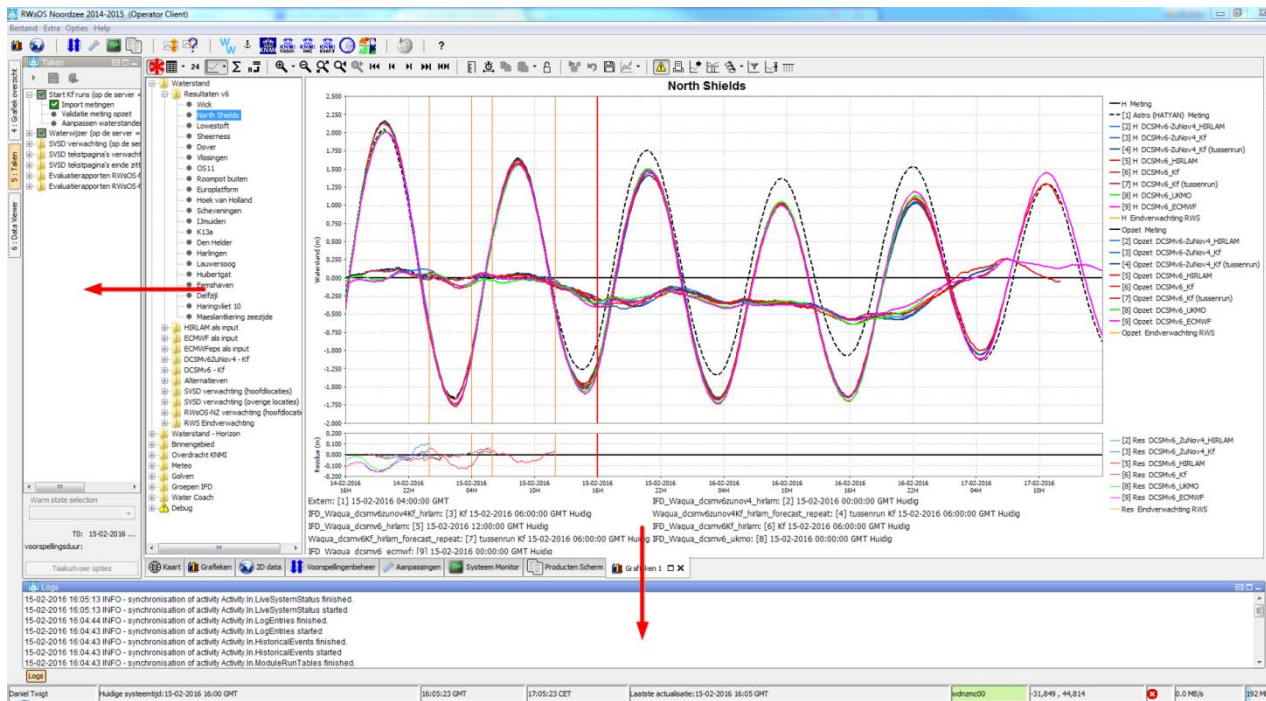
At the bottom of the window, there are "Close" and "Help" buttons.





# Time Series Display - Maximize graph

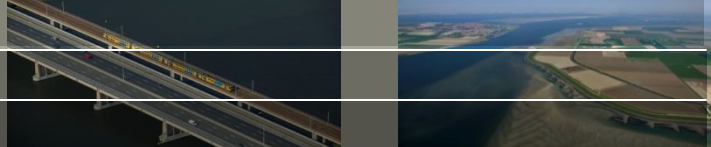
4



```
<showDisplayGroupsHideAllToolWindows />
```



# Task Run Dialog with info fields



The screenshot shows the 'INVOER IJSELMEER' software interface. The main window is titled 'INVOER IJSELMEER' and contains several sections:

- Scenario's:** A tree view on the left showing various scenarios like 'IJsselmeer (SWAN and WAQUA)', 'Markermeer (SWAN and WAQUA)', etc. The 'Database Optie' is selected and circled with a red '1'.
- Scenario details:** Fields for 'Scenarionaam:' and 'Omschrijving:'. A checkbox 'Goedkeuren indien succesvol' is checked.
- INVOER IJSELMEER:** Input fields for 'Windsnelheid (m/s)' (34.0), 'Windrichting (graden)' (225.0), 'Afvoer IJssel (m3/s)' (800), 'Afvoer Vecht (m3/s)' (300), and 'Hoogte +NAP (m)' (0.34). The 'Windsnelheid' field is circled with a red '2'.
- INVO MARKERMEER:** Input fields for 'Windsnelheid (m/s)' (34.0), 'Windrichting (graden)' (225.0), and 'Hoogte +NAP (m)' (0.34).
- INVO IJSELMEER:** Summary statistics for wind speed and direction, and 'Afvoer Vecht' and 'Meerpeil'.
- INVO MARKERMEER:** Summary statistics for wind speed, direction, and 'Meerpeil'.
- Buttons:** 'Afvoeren', 'Afsluiten', and 'Help' buttons are at the bottom right. The 'Afvoeren' button is circled with a red '4'.
- Task Run Dialog:** A dialog box at the bottom left, titled 'Log', contains a log of activities. The 'Log' button is circled with a red '5'.
- Task Run Dialog:** A dialog box at the bottom right, titled 'What-if Scenario's', is also circled with a red '5'.
- Task Run Dialog:** A dialog box at the bottom center, titled 'Aanpassingen', is also circled with a red '5'.
- Task Run Dialog:** A dialog box at the bottom left, titled 'Kaart', is also circled with a red '5'.
- Task Run Dialog:** A dialog box at the bottom right, titled 'Grafieken', is also circled with a red '5'.
- Task Run Dialog:** A dialog box at the bottom center, titled '2D data', is also circled with a red '5'.
- Task Run Dialog:** A dialog box at the bottom left, titled 'Voorspellingenbeheer', is also circled with a red '5'.
- Task Run Dialog:** A dialog box at the bottom right, titled 'Systeem Monitor', is also circled with a red '5'.
- Task Run Dialog:** A dialog box at the bottom center, titled 'Producten Scherm', is also circled with a red '5'.
- Task Run Dialog:** A dialog box at the bottom left, titled 'Bas Stengs (deltares\_Forecaster)', is also circled with a red '5'.

The status bar at the bottom shows: 'Bas Stengs (deltares\_Forecaster)', 'Huidige systeemtid:di 02-02-2016 17:00 CET', '16:26:48 GMT', '17:26:48 CET', 'Stand alone', '2301, 582083', '0,0 MB/s', and '207 MB'.

# Forecast Management Age Dependent



RWSOS Noordzee v0.9 - Pre-Operationeel (Stand alone)

Bestand Extra Opties Help

Overzicht voorspellingen Actuele voorspellingen Verloopjdstip voorspelling Modifiers

Goedgekeurde voorspellingen

| TO                  | Tijdstip van uitvoering | Workflow                     | Scenario | Omschrijving | Gebruiker | FSS ID |
|---------------------|-------------------------|------------------------------|----------|--------------|-----------|--------|
| 29-02-2012 09:33:00 | 29-02-2012 09:33:02     | Automatic Validation         |          |              |           | FSS01  |
| 29-02-2012 00:00:00 | 29-02-2012 09:30:02     | Start DCSM-v5 ECMWF          |          |              |           | FSS01  |
| 29-02-2012 09:00:00 | 29-02-2012 09:20:03     | Start DCSM-v6 ZuNo-v4 astro  |          |              |           | FSS01  |
| 29-02-2012 09:00:00 | 29-02-2012 09:10:55     | Start DCSM-v6 astro          |          |              |           | FSS02  |
| 29-02-2012 09:00:00 | 29-02-2012 09:05:03     | Start DCSM-v5 astro          |          |              |           | FSS00  |
| 29-02-2012 00:00:00 | 29-02-2012 05:35:00     | Start DCSM-v6 UKMO           |          |              |           | FSS00  |
| 29-02-2012 00:00:00 | 29-02-2012 05:30:03     | Start SWAN DCSM-v6 HIRLAM    |          |              |           | FSS02  |
| 29-02-2012 00:00:00 | 29-02-2012 05:30:02     | Start DCSM-v5 UKMO           |          |              |           | FSS01  |
| 29-02-2012 00:00:00 | 29-02-2012 04:05:02     | Start DCSM-v6 ZuNo-v4 Hirlam |          |              |           | FSS01  |
| 29-02-2012 00:00:00 | 29-02-2012 04:05:02     | Start DCSM-v5 HIRLAM         |          |              |           | FSS00  |
| 29-02-2012 00:00:00 | 29-02-2012 04:05:02     | Start DCSM-v6 HIRLAM         |          |              |           | FSS01  |
| 29-02-2012 00:00:00 | 29-02-2012 07:00:04     | Start SWAN ZUINO-v4 HIRLAM   |          |              |           | FSS01  |

Voorspellingen in de lokale cache database

| TO                  | Tijdstip van uitvoering | Workflow                     | Scenario | Omschrijving | Gebruiker | FSS ID |
|---------------------|-------------------------|------------------------------|----------|--------------|-----------|--------|
| 29-02-2012 09:33:00 | 29-02-2012 09:33:02     | Automatic Validation         |          |              |           | FSS01  |
| 29-02-2012 00:00:00 | 29-02-2012 09:30:02     | Start DCSM-v5 ECMWF          |          |              |           | FSS01  |
| 29-02-2012 09:00:00 | 29-02-2012 09:20:03     | Start DCSM-v6 ZuNo-v4 astro  |          |              |           | FSS01  |
| 29-02-2012 09:00:00 | 29-02-2012 09:10:55     | Start DCSM-v6 astro          |          |              |           | FSS02  |
| 29-02-2012 09:00:00 | 29-02-2012 09:05:03     | Start DCSM-v5 astro          |          |              |           | FSS00  |
| 29-02-2012 09:03:00 | 29-02-2012 09:03:03     | Automatic Validation         |          |              |           | FSS00  |
| 29-02-2012 08:33:00 | 29-02-2012 08:33:05     | Automatic Validation         |          |              |           | FSS01  |
| 29-02-2012 08:03:00 | 29-02-2012 08:03:01     | Automatic Validation         |          |              |           | FSS01  |
| 29-02-2012 07:33:00 | 29-02-2012 07:33:03     | Automatic Validation         |          |              |           | FSS01  |
| 29-02-2012 07:03:00 | 29-02-2012 07:03:02     | Automatic Validation         |          |              |           | FSS00  |
| 29-02-2012 06:00:00 | 29-02-2012 07:00:01     | Start SWAN ZUINO-v4 HIRLAM   |          |              |           | FSS01  |
| 29-02-2012 06:33:00 | 29-02-2012 06:33:00     | Automatic Validation         |          |              |           | FSS01  |
| 29-02-2012 06:03:00 | 29-02-2012 06:03:04     | Automatic Validation         |          |              |           | FSS00  |
| 29-02-2012 00:00:00 | 29-02-2012 05:35:02     | Start DCSM-v6 UKMO           |          |              |           | FSS00  |
| 29-02-2012 05:33:00 | 29-02-2012 05:33:05     | Automatic Validation         |          |              |           | FSS00  |
| 29-02-2012 00:00:00 | 29-02-2012 05:30:03     | Start SWAN DCSM-v6 HIRLAM    |          |              |           | FSS02  |
| 29-02-2012 00:00:00 | 29-02-2012 05:30:02     | Start DCSM-v5 UKMO           |          |              |           | FSS01  |
| 29-02-2012 00:00:00 | 29-02-2012 05:15:04     | Transform meteo HIRLAM-v7.2  |          |              |           | FSS02  |
| 29-02-2012 05:03:00 | 29-02-2012 05:03:03     | Automatic Validation         |          |              |           | FSS02  |
| 29-02-2012 04:33:00 | 29-02-2012 04:33:00     | Automatic Validation         |          |              |           | FSS02  |
| 29-02-2012 00:00:00 | 29-02-2012 04:05:02     | Start DCSM-v6 ZuNo-v4 Hirlam |          |              |           | FSS01  |
| 29-02-2012 00:00:00 | 29-02-2012 04:05:02     | Start DCSM-v5 HIRLAM         |          |              |           | FSS00  |
| 29-02-2012 00:00:00 | 29-02-2012 04:05:02     | Start DCSM-v6 HIRLAM         |          |              |           | FSS01  |
| 29-02-2012 04:03:00 | 29-02-2012 04:03:01     | Automatic Validation         |          |              |           | FSS01  |
| 29-02-2012 03:33:00 | 29-02-2012 03:33:04     | Automatic Validation         |          |              |           | FSS01  |
| 29-02-2012 03:00:00 | 29-02-2012 03:20:02     | Start DCSM-v6 ZuNo-v4 astro  |          |              |           | FSS01  |
| 29-02-2012 03:00:00 | 29-02-2012 03:10:49     | Start DCSM-v6 astro          |          |              |           | FSS00  |

3: Grafiek overzicht

5: Taben

6: Data Viewen

7: Product

Filter met selectie

Verwijder filter

Goedgekeuren

Filter met selectie

Verwijder filter

FSS ID

Goedgekeuren

Filter met selectie

Verwijder filter

Afsluiten Help

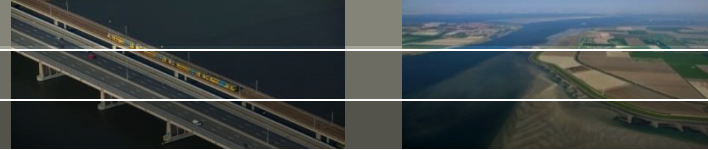
-3,284 , 45,311 0.1 MB/s 436 MB

15:00 14-Dec-15

Afsluiten Help

Erik Pelgrim Huidige systeemtijds:20-09-13 09:00 GMT 16:27:39 GMT 17:27:39 CET Stand alone -4,195 , 49,176 0.0 MB/s 134 MB

# Admin Interface with FSS groups



## Grouping of Forecasting Shell Servers (FSS)

- Windows
- Linux
- Model X (licensed)
- Model Y (disk space)

### Map workflow to FSS Group

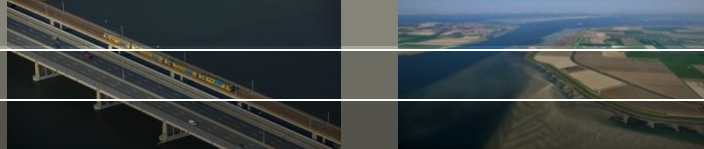
- through webpage (Admin Interface)
- upload from file
- download mappings for editing

The screenshot displays the Deltares Admin Interface. At the top left is the Deltares logo with the tagline 'Enabling Delta Life' and 'Delft Hydraulics'. The page title is 'Delft FEWS'. On the left is a 'Main menu' with options like 'System Status', 'Files', 'Forecast Tasks', 'Workflows and FSSs', 'Workflows', 'Workflow FSS Mappings', 'FSS Groups', 'Forecast Shell Servers', 'Event and Action Configuration', 'Event Action Mappings', 'User Administration', 'System Control', and 'Database Analysis'. Below the menu, it shows 'Running on SEPAMC00' and 'Logged on as ADMIN'. The main content area is titled 'Workflows and FSSs' and contains a 'Create Workflow FSS Mapping' form. This form includes a 'Workflow ID' dropdown, an 'FSS ID' dropdown (with options: Windows, Linux, Model1, [all], FSS00, FSS01, [System Reporter], [Synchroniser]), and 'Scheduling Options' (with options: [all simultaneous], [all staggered], [all one-at-a-time], [all most-recent-only]). There are 'Submit' and 'Cancel' buttons. At the bottom, there is a 'Map to Groups' section with a dropdown to map workflows to FSS groups (options: Windows, Linux, Model1, \*all).

Copyright © 2009-2013, Deltares



# Admin Interface with FSS groups



1



## Delft FEWS - Scotland

Matrix with overview

download as csv file

**Main menu**

- » System Status
- » Files
- » Forecast Tasks
- » Workflows and FSSs
  - » Workflows
  - » Workflow FSS Mappings
  - » Forecast Shell Servers
  - » FSS Groups
  - » Event and Action Configuration
  - » Event Action Mappings
- » User Administration
- » System Control
- » Database Analysis

Running on SEPAMC00

Logged on as ADMIN

- » Log Off

**Workflows and FSSs**

Workflow FSS Mapping Matrix

| Workflow ID                       | Run Options | Linux | Windows | Model 1 | FSS01 | FSS02 | FSS03 | FSS04 | FSS05 | FSS06 | FSS07 | FSS08 | FSS09 | FSS10 | FSS11 | FSS12 |
|-----------------------------------|-------------|-------|---------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AireFlow_FastResponse_Forecast    | X           |       |         |         | X     | X     |       |       |       |       |       |       |       |       |       |       |
| AireFlow_SlowResponse_Forecast    |             | X     |         |         |       |       |       |       |       |       |       |       |       | X     | X     |       |
| ArchiveForecast                   |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Archive_Configuration             |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Archive_Forecast                  |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Archive_LogEntries                | *all        |       |         |         | X     | X     | X     | X     | X     | X     | X     | X     | X     | X     | X     | X     |
| Archive_Scheduled                 |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Archive_Thresholds                |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Archive_TimeSeries                |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| CaldieFlow_FastResponse_Forecast  |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| CaldieFlow_SlowResponse_Forecast  |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Database_Maintenance              |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| DerwentFlow_FastResponse_Forecast |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| DerwentFlow_SlowResponse_Forecast |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| DonFlow_FastResponse_Forecast     |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| DonFlow_SlowResponse_Forecast     |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Historical_Aire_Lower             |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Historical_Aire_Upper             |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Historical_Derwent                |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Historical_Don                    |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Historical_Don_Reservoirs         |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Historical_Gaunless               |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Historical_Ouse                   |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Historical_Swale                  |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Historical_Tees                   |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Historical_Tyne_Ouseburn          |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Import_Archive_Forecast           |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Import_Archive_Thresholds         |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Import_Archive_TimeSeries         |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |
| Manual_18hr_OuseTidal_Forecast    |             |       |         |         |       |       |       |       |       |       |       |       |       |       |       |       |





# INTERNATIONAL TOP 10

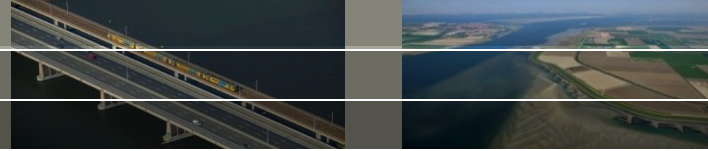


13 juli 2016

**Deltares**



# (multi) replace



# 10

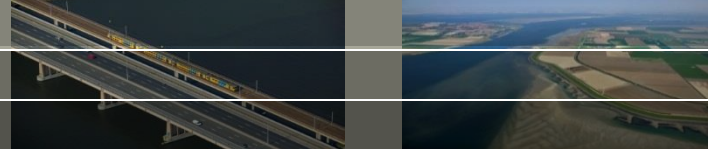
- In Data Editor: select one or more cells and start typing...
- All selected cells get the same value

|  |                  |       |
|--|------------------|-------|
|  | 12-05-2016 20:00 | 10.50 |
|  | 12-05-2016 21:00 | 10.50 |
|  | 12-05-2016 22:00 | 10.30 |
|  | 12-05-2016 23:00 | 10.30 |
|  | 13-05-2016 00:00 | 10.40 |
|  | 13-05-2016 01:00 | 10.40 |
|  | 13-05-2016 02:00 | 10.30 |
|  | 13-05-2016 03:00 | 10.30 |
|  | 13-05-2016 04:00 | 9.80  |

re (Tdew.m)  
m)

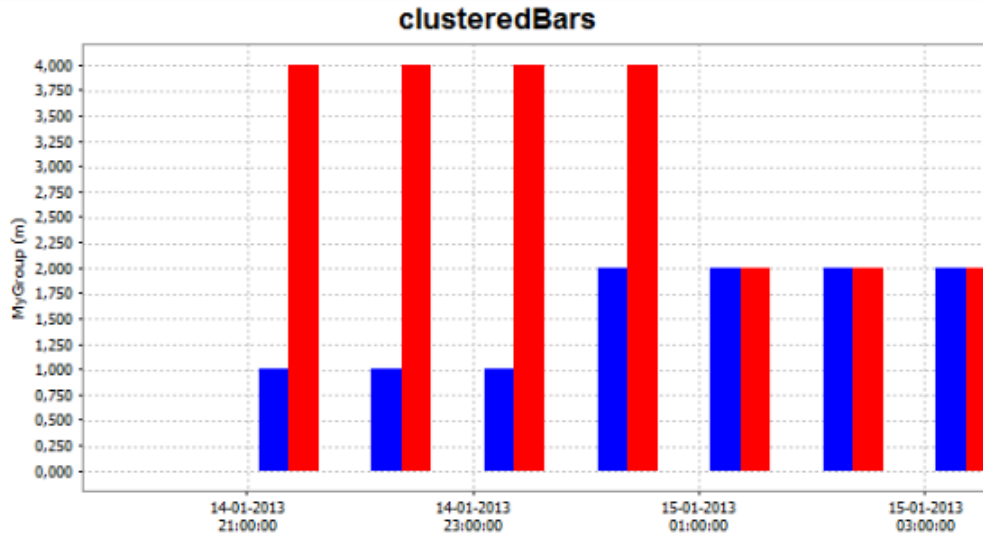


# Clustered Bars plot type



9

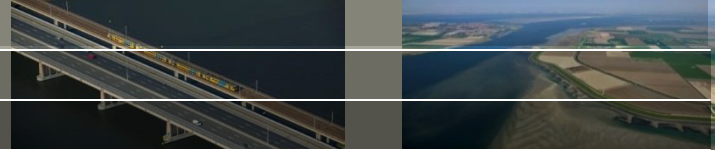
- Choice to NOT overlap bar graphs



```
<display name="clusteredBars">
  <subplot>
    <clusteredBars axis="left">
      <bar>
        <color>blue</color>
        <visibleInLegend>>false</visibleInLegend>
        <timeSeriesSet>
          <moduleInstanceId>Import</moduleInstanceId>
          <valueType>scalar</valueType>
          <parameterId>Q.m</parameterId>
          <locationId>LocA</locationId>
          <timeSeriesType>external historical</timeSeriesType>
          <timeStep unit="hour"/>
          <relativeViewPeriod unit="hour" start="-12" end="12"/>
          <readWriteMode>read only</readWriteMode>
        </timeSeriesSet>
      </bar>
      <bar>
        <color>red</color>
        <label>Rated Discharge</label>
        <timeSeriesSet>
          <moduleInstanceId>Import</moduleInstanceId>
          <valueType>scalar</valueType>
          <parameterId>Q.rated</parameterId>
          <locationId>LocA</locationId>
          <timeSeriesType>external historical</timeSeriesType>
          <timeStep unit="hour"/>
          <relativeViewPeriod unit="hour" start="-12" end="12"/>
          <readWriteMode>read only</readWriteMode>
        </timeSeriesSet>
      </bar>
    </clusteredBars>
  </subplot>
</display>
```



# Layout of legend adjustable



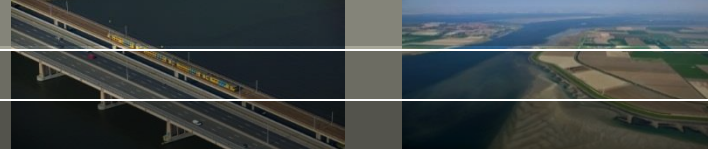
The screenshot shows the FEWS FOEN Live System interface. The main window displays a time-series graph with a legend menu open. The legend menu lists various options and their keyboard shortcuts:

- Toggle graph: Ctrl+G
- Scale to show unreliable data: Ctrl+U
- Show data labels: Ctrl+D
- Toggle Filter and Shortcuts: Ctrl+Shift+G
- hide unreliaibles: Ctrl+Shift+H
- Show legend at vertical axis: Ctrl+J
- Show legend inside graph: Ctrl+P
- Show legend at horizontal axis: Ctrl+K
- Hide legend: Ctrl+O
- Hide footer: Ctrl+Shift+F
- Show selected values in legend: Ctrl+Alt+Shift+V
- No thresholds: Ctrl+1
- Scale to show relevant thresholds: Ctrl+2
- Scale to show all thresholds: Ctrl+3
- Validation: Ctrl+Alt+V
- Users: Ctrl+Alt+U
- Comments: Ctrl+Alt+C

The graph shows data for 'Discharge (Q.m)' from 06-06-2016 16:00 to 07-06-2016 12:00. The legend indicates four series: Q.m ZihlGam (observed) in green, Q.m BroPav (observed) in blue, Q.m Hitzkirch (observed) in red, and an unlabeled series in purple. The graph shows a significant peak in the green series around 06-06-2016 20:00.

The interface also includes a 'Data Viewer' panel on the left with a tree view of data sources, a 'Logs' panel at the bottom showing system messages, and a status bar at the very bottom with system information like 'Gerben Boot (Deltares)', 'Current system time: 10-06-2016 11:00 (GMT+1)', and '0.0 MB/s'.

# Statistical timeseries on-the-fly



FEWS FOEN Live System, August 2014 (Stand alone)

File Tools Options Help

Spatial Display Manual Forecast Forecast Manager System Monitor UPD Interval Statistics ?

Data Viewer

Check until current system  
Update Period  
Hydro Updates (HBV)  
Hydro Updates (PREVAH)  
Hydro Updates (WASIM)  
Hydro Updates (LARSIM)  
Catchments (HBV)  
Catchments (PREVAH)  
Catchments (WASIM)  
Catchment (LARSIM)  
Elevation Zones (HBV)  
Meteo Zones (PREVAH)  
Hydro Performance (HBV)  
Inflow Lakes  
Forecast - COSMO2  
Forecast - COSMO7  
Forecast - COSMO7\_Con

|                  | A               | B              | C         |
|------------------|-----------------|----------------|-----------|
| P.im (mm)        | P.im (mm)       | P.im (mm)      | P.im (mm) |
| aareing I:2457   | aarethun I:2030 | *              | *         |
| CatchmentCorre   | CatchmentCorre  | CatchmentCorre | sum       |
| 02-06-2016 03:00 | 0.031           | 0.015          | 0.046     |
| 02-06-2016 04:00 | 0.010           | 0.000          | 0.010     |
| 02-06-2016 05:00 | 0.000           | 0.078          | 0.078     |
| 02-06-2016 06:00 | 0.331           | 0.527          | 0.858     |
| 02-06-2016 07:00 | 0.780           | 1.012          | 1.792     |
| 02-06-2016 08:00 | 0.825           | 0.735          | 1.560     |
| 02-06-2016 09:00 | 0.443           | 1.275          | 1.718     |
| 02-06-2016 10:00 | 0.497           | 0.868          | 1.365     |
| 02-06-2016 11:00 | 0.177           | 0.300          | 0.477     |
| 02-06-2016 12:00 | 0.007           | 0.166          | 0.173     |
| 02-06-2016 13:00 | 0.005           | 0.057          | 0.063     |
| 02-06-2016 14:00 | 0.087           | 0.000          | 0.087     |
| 02-06-2016 15:00 | 0.000           | 0.000          | 0.000     |
| 02-06-2016 16:00 | 0.008           | 0.000          | 0.008     |
| 02-06-2016 17:00 | 0.069           | 0.000          | 0.069     |
| 02-06-2016 18:00 | 0.000           | 0.000          | 0.000     |
| 02-06-2016 19:00 | 0.201           | 0.006          | 0.207     |
| 02-06-2016 20:00 | 0.004           | 0.004          | 0.008     |
| 02-06-2016 21:00 | 0.104           | 0.055          | 0.159     |
| 02-06-2016 22:00 | 0.150           | 0.077          | 0.227     |
| 02-06-2016 23:00 | 0.000           | 0.000          | 0.000     |
| 03-06-2016 00:00 | 0.009           | 0.000          | 0.009     |
| 03-06-2016 01:00 | 0.017           | 0.002          | 0.019     |
| 03-06-2016 02:00 | 0.037           | 0.028          | 0.065     |
| 03-06-2016 03:00 | 0.039           | 0.104          | 0.143     |
| 03-06-2016 04:00 | 0.069           | 0.287          | 0.356     |
| 03-06-2016 05:00 | 0.364           | 0.358          | 0.722     |
| 03-06-2016 06:00 | 0.656           | 0.400          | 1.056     |
| 03-06-2016 07:00 | 0.754           | 0.133          | 0.887     |
| 03-06-2016 08:00 | 0.539           | 0.312          | 0.851     |
| 03-06-2016 09:00 | 0.154           | 0.560          | 0.714     |
| 03-06-2016 10:00 | 0.147           | 0.357          | 0.504     |
| 03-06-2016 11:00 | 0.507           | 0.337          | 0.844     |
| 03-06-2016 12:00 | 0.100           | 0.098          | 0.198     |
| 03-06-2016 13:00 | 0.000           | 0.021          | 0.021     |
| 03-06-2016 14:00 | 0.020           | 0.000          | 0.020     |
| 03-06-2016 15:00 | 0.081           | 0.066          | 0.147     |
| 03-06-2016 16:00 | 0.026           | 0.054          | 0.080     |
| 03-06-2016 17:00 | 0.237           | 0.378          | 0.615     |
| 03-06-2016 18:00 | 0.652           | 2.655          | 3.307     |
| 03-06-2016 19:00 | 4.636           | 1.824          | 6.460     |
| 03-06-2016 20:00 | 5.057           | 1.828          | 6.885     |
| 03-06-2016 21:00 | 1.267           | 1.099          | 2.366     |
| 03-06-2016 22:00 | 0.593           | 1.039          | 1.632     |

0°C Altitude (H-OC.im)  
Precipitation (P.im)  
Precipitation Hydrological Model  
Radar Precip. (P.rad)  
Temperature (T.im)  
Runoff coefficient (RC.uh)  
Snow cover area (SC.uh)  
Snow Total water content (S.uh)

Map Graph and Table Spatial Display Interval Statistics

Legend: P.im aareing (blue), P.im aarethun (red), P.im \* - sum (green)

Select a statistical function >

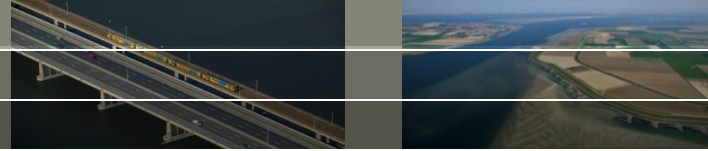
ies in a

```
e> /statisticType>
ttributeId>
e>
```

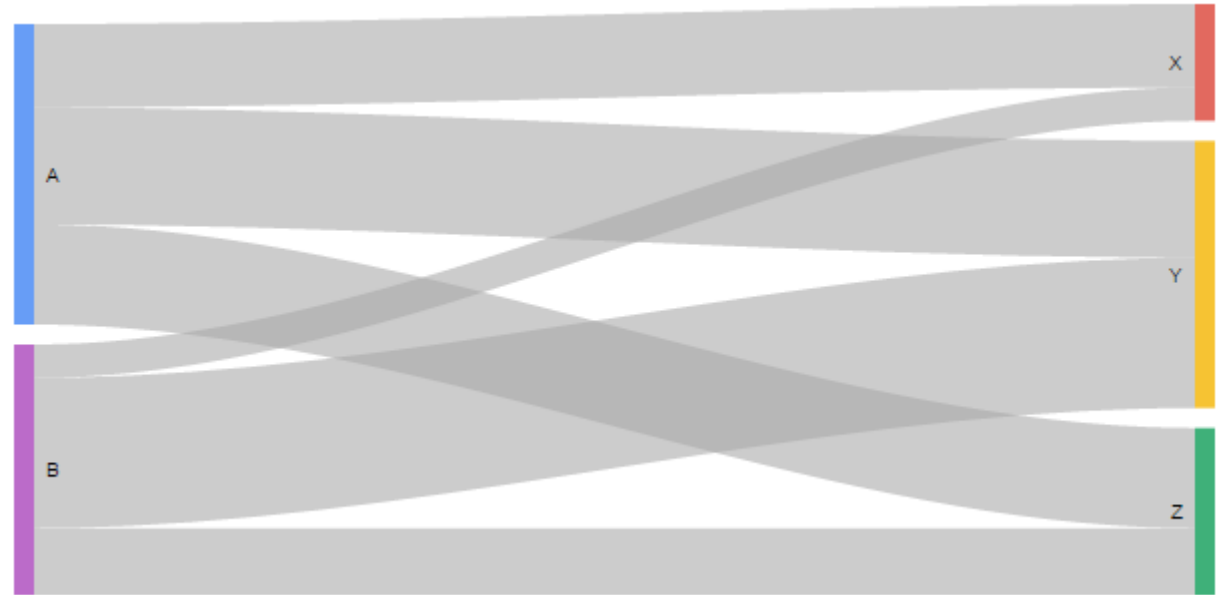
ltares



# Sankey Diagram in SSD



- to visualize flows and their magnitude through the reservoir system...



# Performance improvements

5

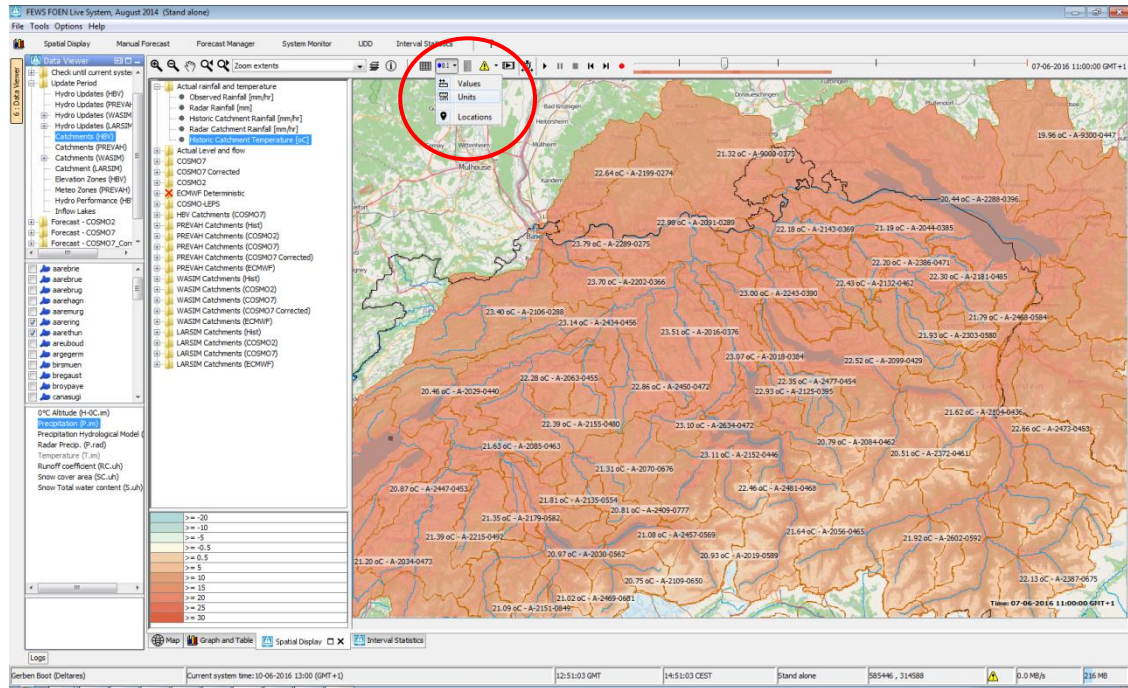
- Expensive (GUI) queries fixed → HDSR Performance Project
- UGRID visualization improved (memory reduction: 96.5%)
- Switch off file caching when importing from FTP
- Attribute filtering / creating filters based on attributes



# Labels in Spatial Display

4

- Appearance of labels adjustable:
  - None
  - Locations
  - Values (+ / - unit)





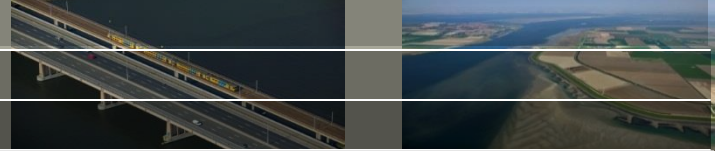
# Embedded Water Coach



- Water Coach Training tool now embedded in Delft-FEWS



# Embedded HTML(5) viewer



2

File Tools Options Help

ME MER SNE CT LCH HUD GRL ?

https://www.deltares.nl/en/

NL EN NEWS CAREERS SEARCH 0

**Deltares**  
Enabling Delta Life

Areas of expertise Software Academy Facilities About us Contact

**Nature-based engineering**

Combining water and nature

Deltares is an independent institute for applied research in the field of water and subsurface with five areas of expertise.

Map Html5 Display Plots Topology Modifiers

6 : Logs 9 : Run Info 7 : Forecaster Notes

|                   |  |              |               |             |          |        |
|-------------------|--|--------------|---------------|-------------|----------|--------|
| Rudie Ekkelenkamp | Current system time:09-19-2012 18:00 GMT | 14:14:19 GMT | 16:14:19 CEST | Stand alone | 0.0 MB/s | 376 MB |
|-------------------|--|--------------|---------------|-------------|----------|--------|

ology.xml

```
id="node1" name="Node 1">  
lowId>N1_Forecast</workflowId>  
tp://www.deltares.nl</url>
```



# Delft-FEWS op 64b

1

- LINUX (MC, FSS)
- Beta: Windows, full support 2016.02

RWSOS Noordzee v0.9 - Pre-Operationeel (Stand alone)

Wired network connection 'System eth0' active

Restand Extra Opties Help

SKILL Scores Configuratie handleiding RWSOS WIKI FEWS documentatie ?

North Sea 28-02-2012 17:00:00 GMT

Logs

21-03-2016 15:40:03 INFO - Retrieving configuration from system resources.  
\*\*\*\* ERROR: PLEASE READ BELOW \*\*\*\*  
21-03-2016 15:40:01 INFO - Application Startup Finished: De applicatie is volledig opgestart. (50s)  
21-03-2016 15:40:00 INFO - Gui Initialized: Grafische user interface geïnitieerd.  
21-03-2016 15:39:51 INFO - Auto system update - update alone system  
21-03-2016 15:39:51 WARN - ROLLING BARREL & DATOR WITH - DatorRollingBarrel=false VM parameter debug option  
21-03-2016 15:39:51 WARN - ALL PERMISSIONS ENABLED - DatorPermissions=true VM parameter debug option  
21-03-2016 15:39:51 WARN - AUTO SYSTEM TIME SWITCHED OFF - DatorSystemTime=false VM parameter debug option  
21-03-2016 15:39:50 INFO - Configuration Available: Configuratie beschikbaar in local filesystem.  
21-03-2016 15:39:50 INFO - Config CheckStarted: Controle van configuratie opgestart.  
21-03-2016 15:39:22 ERROR - Config Error: Duplicate parameter group Temperature  
RegionConfigFiles parameters  
21-03-2016 15:39:15 INFO - Application Info: version: 2016 01, build: 59990 Mar21, type: development, jre: 1.8.0\_45, os: Linux, user:fews, mx: 4151m, db: Firebird, region: FEWS\_Noordzee  
21-03-2016 15:39:15 ERROR - Config Error: Unknown region config file type  
RegionConfigFiles/UnitConversionDescriptors.xml  
21-03-2016 15:39:15 ERROR - Config Error: Unknown region config file type  
RegionConfigFiles/IdMapDescriptors.xml  
21-03-2016 15:39:15 INFO - /mnt/hgfs/configurations/FEWS\_Noordzee/Config/configFilesCache.cbin was not closed properly  
21-03-2016 15:39:15 INFO - Using cold states from /mnt/hgfs/configurations/FEWS\_Noordzee/ColdStates  
21-03-2016 15:39:15 INFO - Use configuration from /mnt/hgfs/configurations/FEWS\_Noordzee/Cold  
21-03-2016 15:39:15 ERROR - Local data store not disconnected gracefully from connection established at Mon Mar 21 08:31:41 PDT  
2016  
jdbc:firebirdsql:embedded:/mnt/hgfs/configurations/FEWS\_Noordzee/localDataStore/localDataStore.ctype=UTF8

4 Gigabyte heap

0 bit  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12 bit

28-02-2012 18:00:00  
29-02-2012 00:00:00

28-02-2012 15:00:00 28-02-2012 18:00:00 28-02-2012 21:00:00 29-02-2012

Kaart Grafiek 2D data Voorspellingen beheer Aanpassingen System monitor

Logs

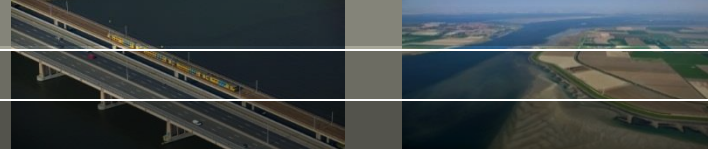
fews huidige systeemtijd:29-02-2012 00:00 GMT 07:45:25 GMT 00:45:25 PDT Stand alone 30,375 / 49,968 0,0 MB/s 445 MB

Terminal fews - [media/fews/fe... fews@localhost:/mnt/... RWSOS Noordzee v0.9 ... Logs

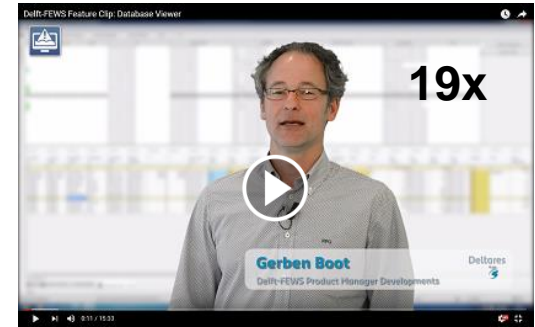
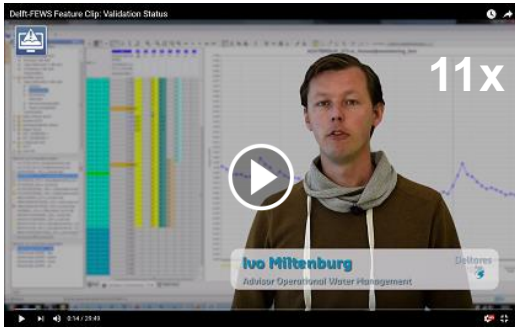
13 juli 2016

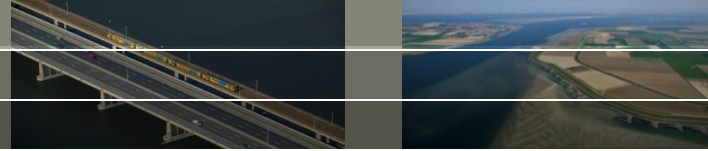
Deltares

# Community Communication



- WIKI: works, but static
- Positive experiences with ‘screencasts’ and ‘videos’
  - What’s new in 2014.01 (210x), New Features in 2015.01 (205x)
  - Continue with ‘instructional videos’ (hands on, masterclass-like)
  - 3 examples...





From Delft-FEWS2020 vision document (discussed in CSB) aiming at:

- Delft-FEWS in the cloud(s)
- Simplify install and upgrade
- Scalability (of FSSs)
- Improve and extend (PI) Webservices
- Continue improving seamless integration also with open archive (grids)
- Configurable 'dashboard' (multiple existing FEWS displays in one overview)
- Much more...

