

# Deltres

Enabling Delta Life





**With Delft-FEWS 2019.02 I can...**

Marcel Ververs, Gerben Boot – Delft-FEWS Productmanagement

Delft-FEWS International User Days 2019

2019.02  
2019.01  
2018.02 EA  
2018.02

2018.01

2017.02 WIS

2017.02 NWS

2017.02 NA

2017.02

2017.01.1

2017.01

2017.01 BoM

2016.02

2016.02 NA

2016.02 NWS

2016.02 RWS

2016.01

2015.01 2015.02

2014.02 2014.03 BPA/NWS  
2014.02 BoM/HyFS 2014.03  
2014.01 BPA  
2014.01 NWS  
2014.01  
2013.02 BPA  
2013.02  
2013.01 EA 2012.01  
2013.01 2012.02 2011.02  
2011.02 EA  
2011.01 NWS  
2011.01  
2010.02  
2010.01  
2009.02  
2009.01  
2008.02 NWS  
2008.03  
2008.01 2008.02  
2008.02 2008.03  
7.0 (2005)  
7.1 (2005)  
7.2 (2006)  
2007.02  
2005.01 2005.02  
2005.01 EA 2005.02 NWS



# Overview...

- Introduction...
- With 2019.02 I can...
- Outlook 2020 (and beyond)...



# Introduction...

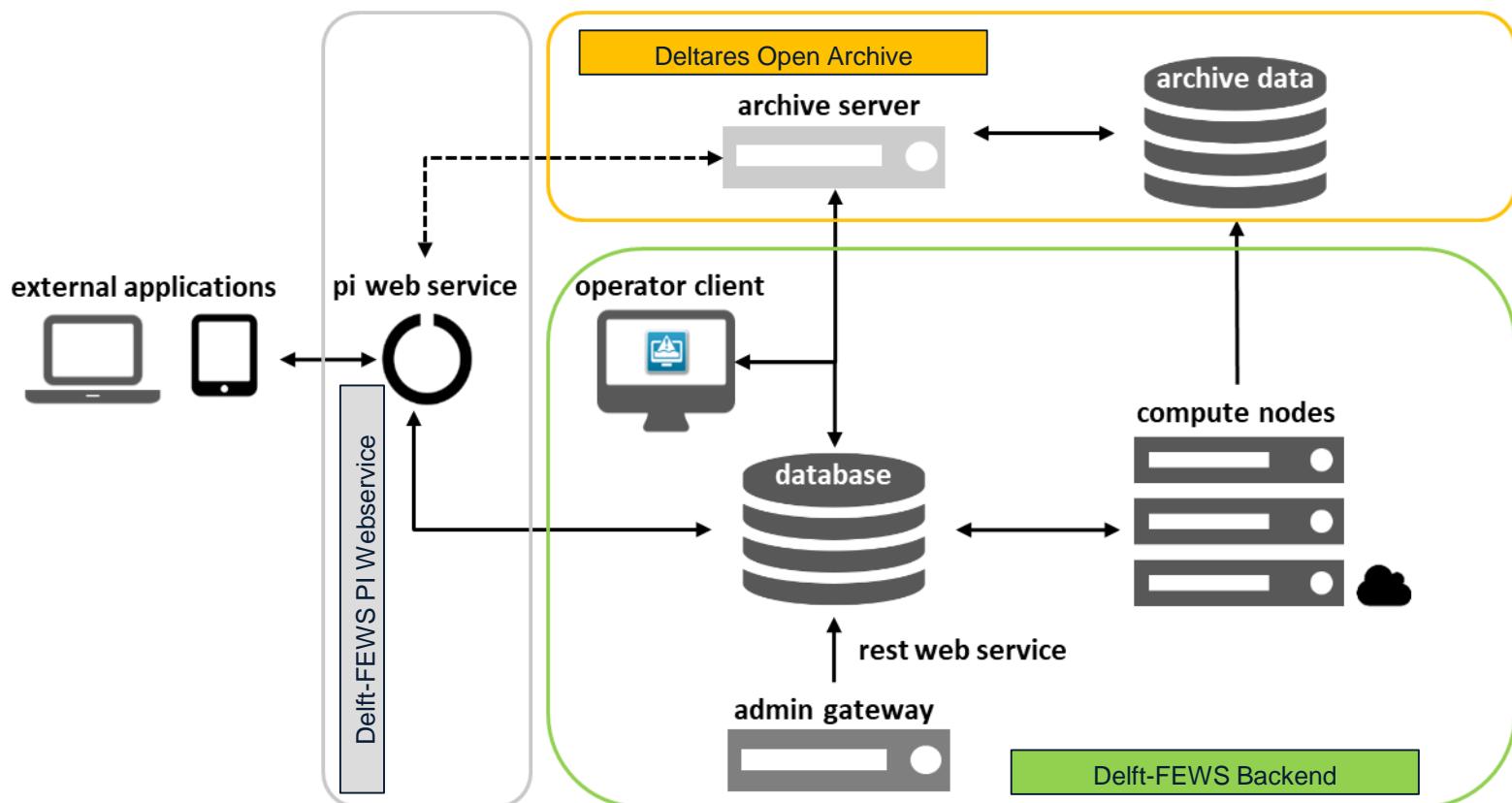
---

- **Roadmaps** implemented...
- 2019.02 **characteristics** and **statistics**...
- Release **planning**...



# Roadmaps reviewed...

- Benefits...
  - Major improvements implemented
  - Simplification...
  - Up-to-date software...
  - Knowledge sharing...
- Learning points...
  - Took (much) more time...
  - Community contributions...
  - Migration paths...



# Delft-FEWS 2019.02...



**156** new features



**107** testing bugs repaired (so far)



**80** new icons designed



**40** components: one or more new features



**20** different clients/projects



**10** developers



**2** new displays



Database performance grid data

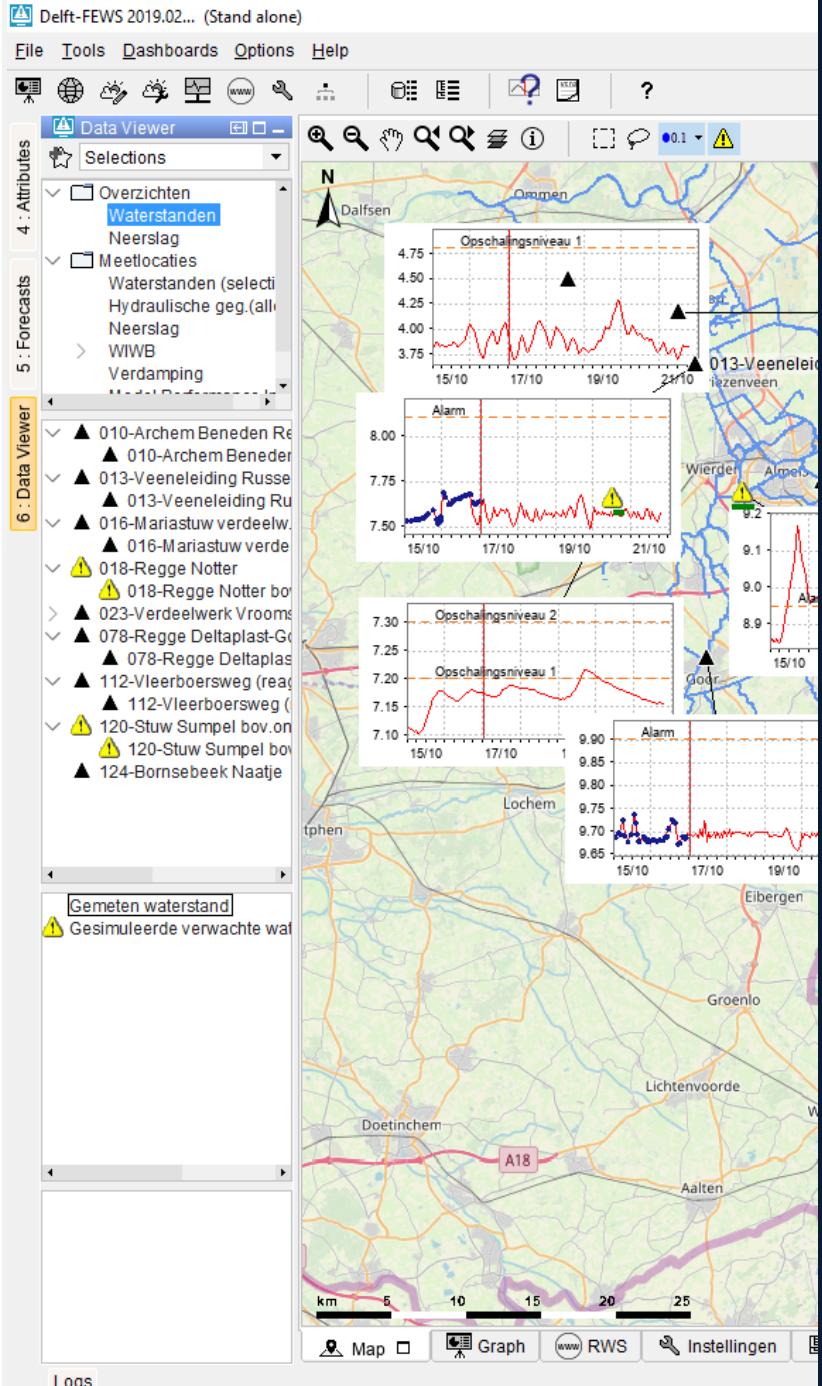
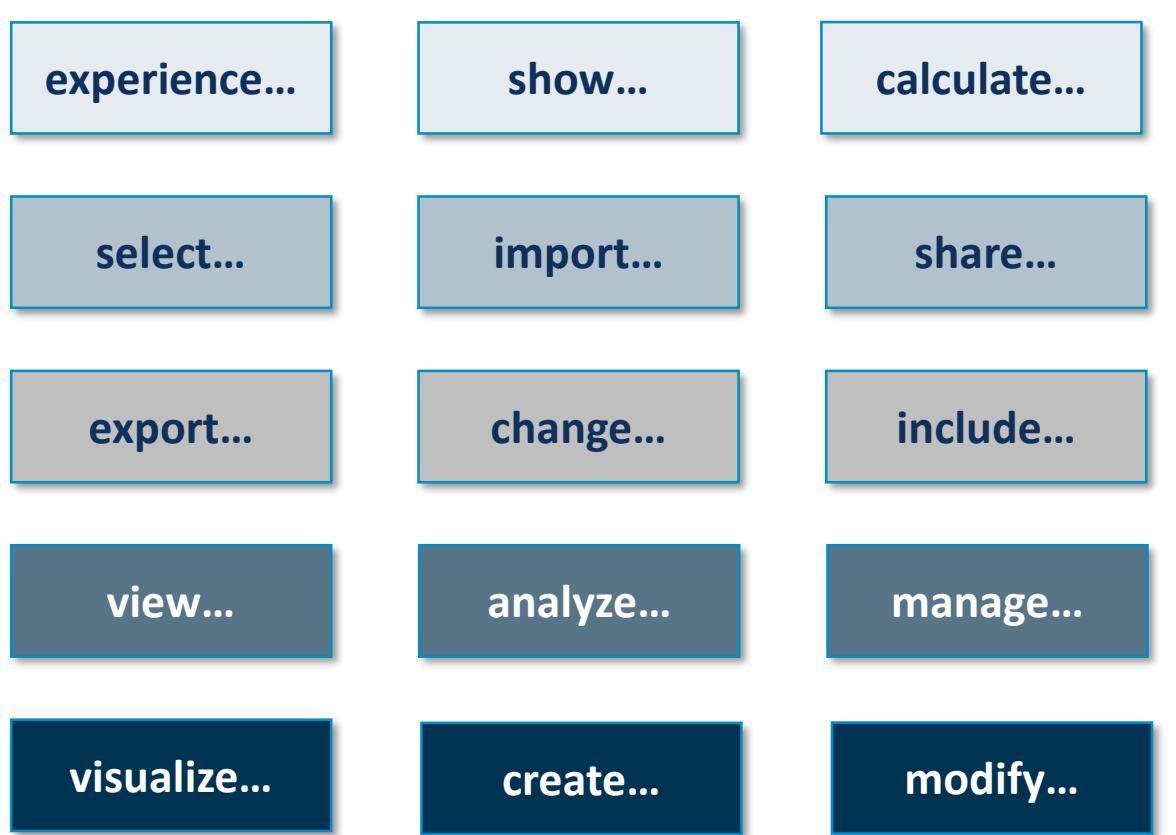
Delft-FEWS

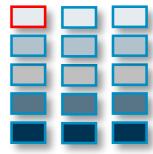


**Release date: 16<sup>th</sup> December 2019**

Internal: 1<sup>st</sup> of December 2019

# With 2019.02, I can...

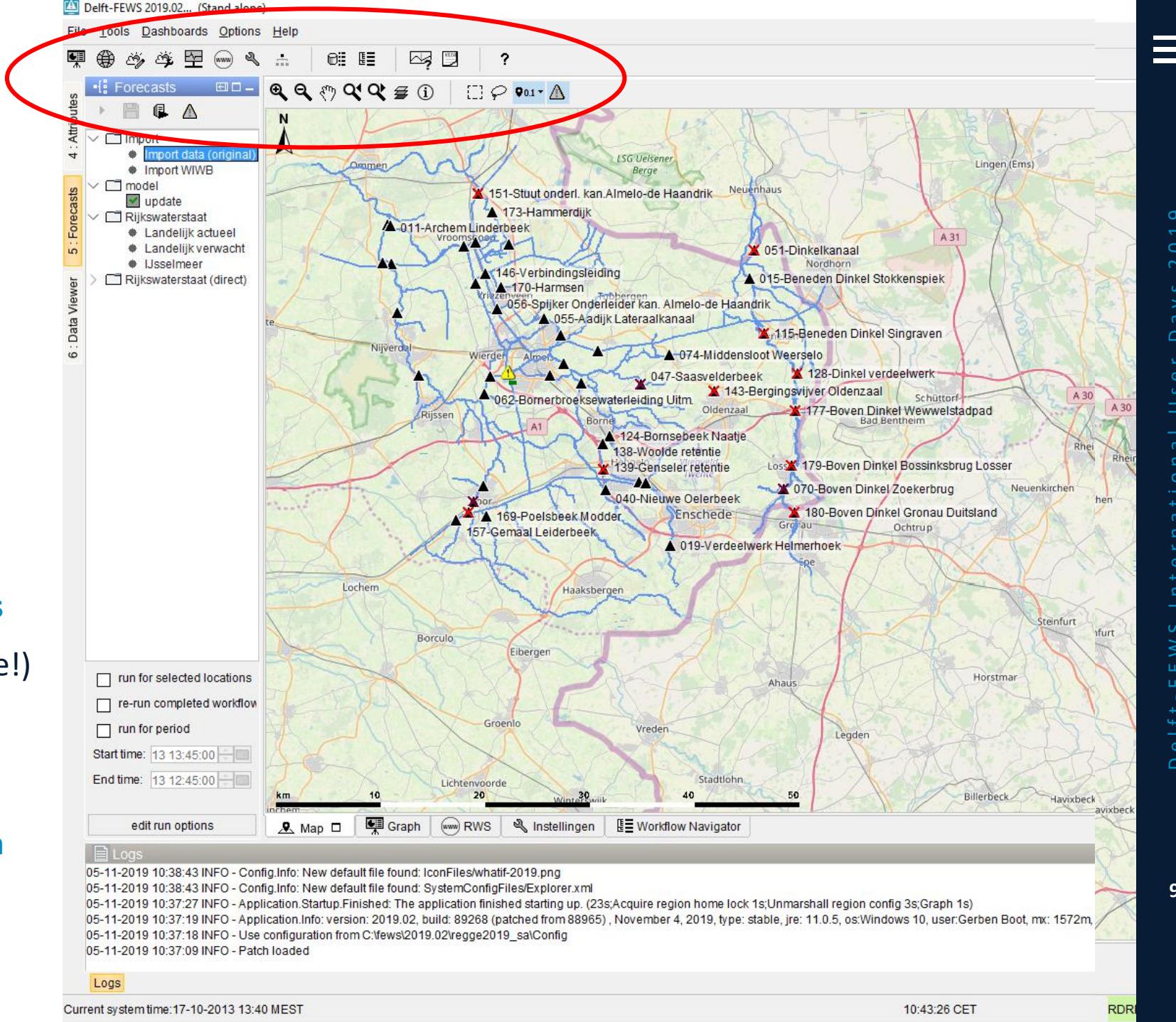


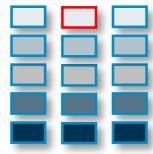


# With 2019.02, I can...

experience...

- A new **look & feel**
  - **One consistent look** across platforms
  - **Windows10 look** (as close as possible)
  - **Overridable using ColorSchemes**
  - Much easier to **maintain** (in code!)
- New **icons**
  - All displays & tool windows now have a **default icon**
  - **Overridable by configuration** (e.g. in Explorer.xml)



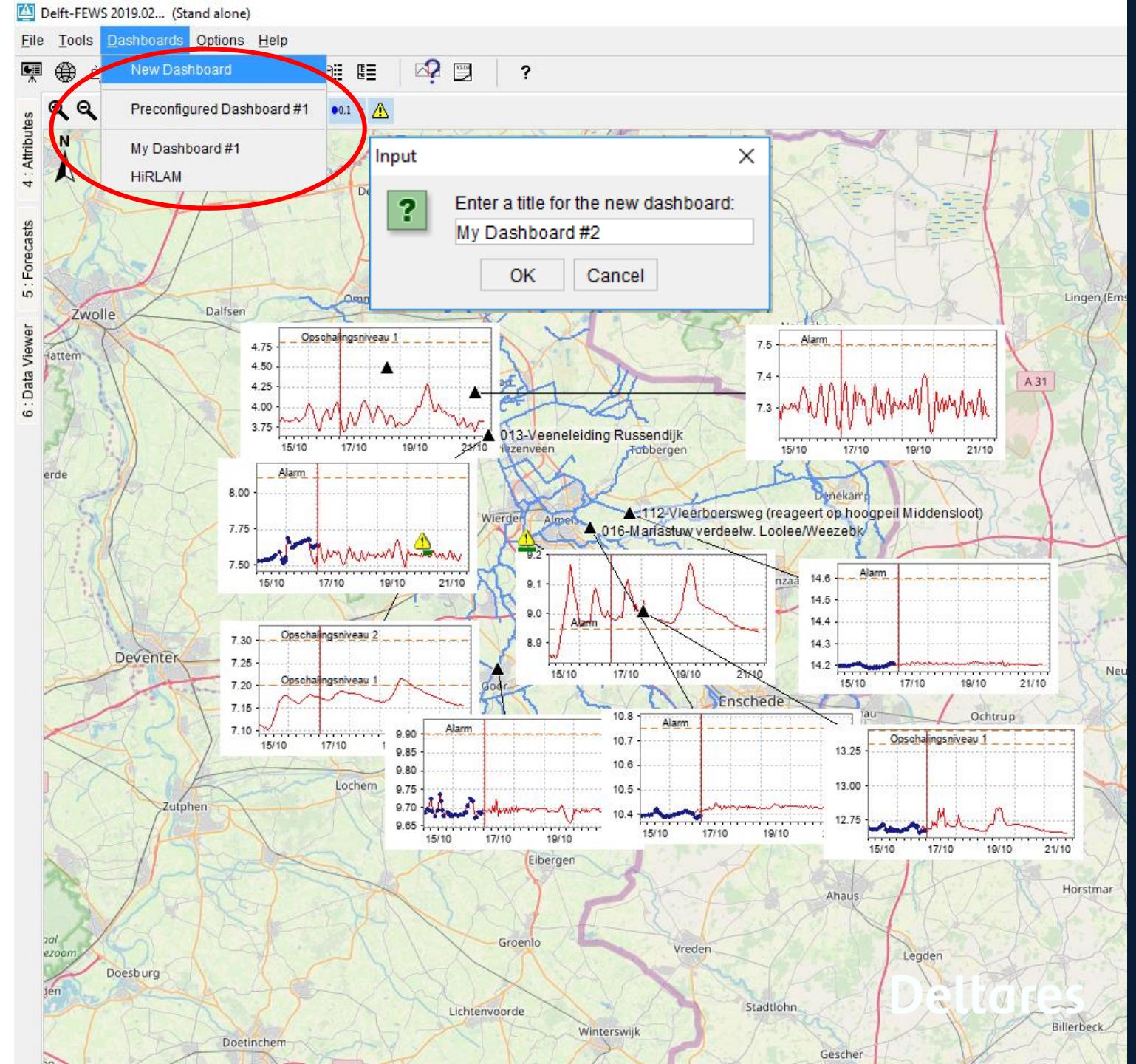


# With 2019.02, I can...

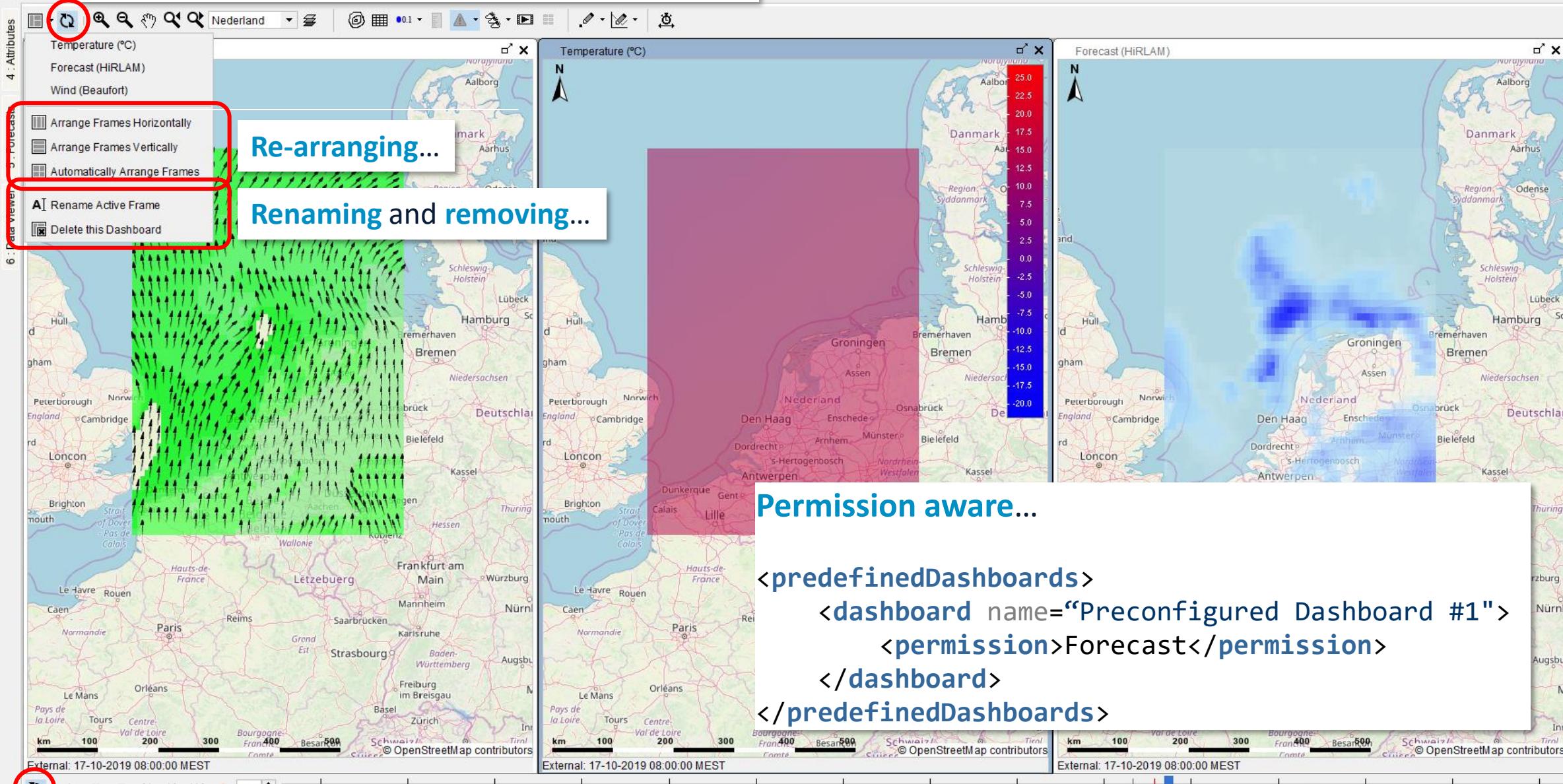
show...

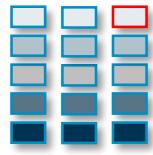


- my own dashboards...
- Pre-defined...
- Private...
- A dashboard: a collection of grid plots shown together...



# Synchronization option: map extent across frames



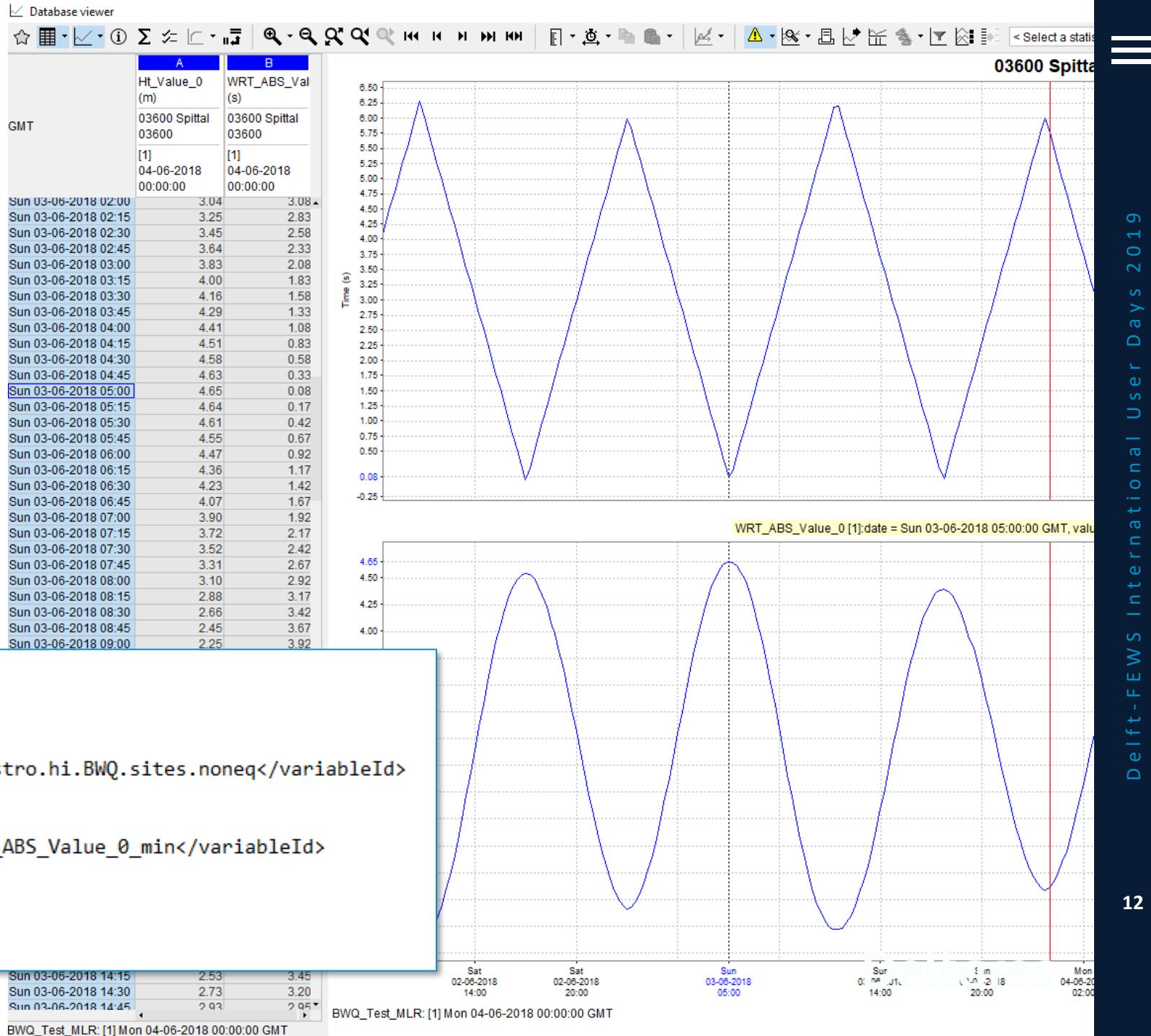


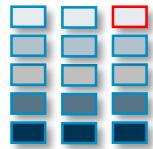
# With 2019.02, I can...

calculate...

- The **time (in hours) before or after the next peak** for every timestep
- Purpose: time to a **high tide** or time to **landfall of a cyclone**...

```
<transformation id="WRT_ABS_min">
  <selection>
    <timeToSelection>
      <inputVariable>
        <variableId>H.astro.hi.BWQ.sites.noneq</variableId>
      </inputVariable>
      <outputVariable>
        <variableId>WRT_ABS_Value_0_min</variableId>
      </outputVariable>
    </timeToSelection>
  </selection>
</transformation>
```



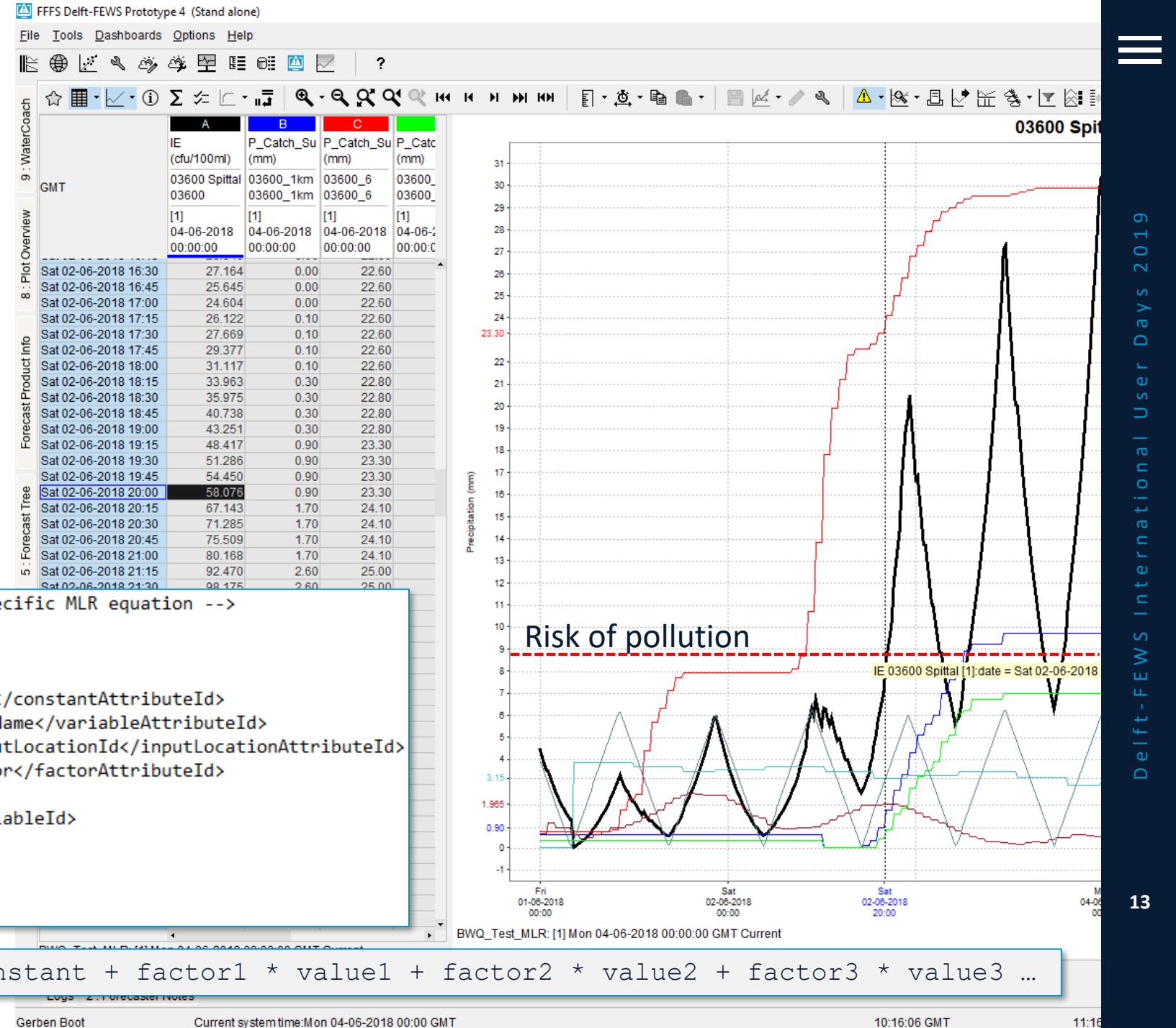


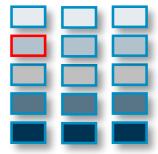
# With 2019.02, I can...

calculate...

- Output using a **multiple linear regression** formula
- Purpose: calculate the **risk of an occurrence** based on **different input** variables...

```
<!-- Calculate risk of pollution based on location-specific MLR equation -->
<transformation id="Risk.logIE">
    <multipleLocationAttributes>
        <multipleLinearRegression>
            <constantAttributeId>Constant</constantAttributeId>
            <variableAttributeId>VariableName</variableAttributeId>
            <inputLocationAttributeId>inputLocationId</inputLocationAttributeId>
            <factorAttributeId>WeightFactor</factorAttributeId>
            <outputVariable>
                <variableId>Risk</variableId>
            </outputVariable>
        </multipleLinearRegression>
    </multipleLocationAttributes>
</transformation>
```





# With 2019.02, I can...

select...



- my **workflows** from a list now
- Provides **overview**...
- Saves a **click**...

Workflow grouping using `<workflowNode>`...

The screenshot shows the FFFS Delft-FEWS Prototype 4 software interface. A red circle highlights the 'Workflow' section in the left sidebar, which contains a tree view of various workflow categories and sub-categories. The 'Coastal Workflows' category is expanded, showing several options like 'Compute Coastal Forecasts (CSDET)', 'Compute Coastal Forecasts (CSENS)', etc., with 'Compute Coastal Reasonable Worst Case' being the selected item. This selection is also highlighted with a yellow box in the main content area. The main content area includes sections for 'What-if scenario' (None), 'Scheduler options' (Single forecast, T0, Fri 23-08-2019 07:30:00), 'Forecast Product Info' (Forecast Tree, Data Views, Run Info), 'Forecast length' (Default, User defined), and 'Priority' (High, Normal). The bottom navigation bar includes links for Map, Data Display, Spatial Display, Peak Heights, Topology, Modifier, Web Browser, Manual Forecast, and a logo for Deltares.

FFFSS Delft-FEWS Prototype 4 (Stand alone)

File Tools Dashboards Options Help

Workflow

National

- Import Workflows
- Process Workflows
- National Fulvial Workflows
- Maintenance Workflows
- Archive Workflows

WaterCoast

9 : WaterCoast

8 : Plot Overview

7 : Forecast Product Info

6 : Data Views

5 : Forecast Tree

4 : Run Info

3 : Forecaster Notes

Logs

What-if scenario

None

Forecast description

Scheduler options

Single forecast (E dd-MM-yyyy HH:mm:ss GMT)

T0 Fri 23-08-2019 07:30:00

Forecast length

Default

User defined day

State selection

Select initial state

Cold state

Type default

Run start time Thu 22-08-2019 07:30:00

Warm state

Search interval

Start time Wed 21-08-2019 07:30:00

End time Thu 22-08-2019 07:30:00

Forecast shells

Single

Parallel

Priority

High

Normal

Approve

Run for selected locations

Forecasting shells

Forecast length

Default

User defined day

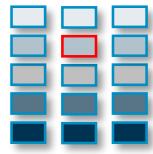
Workflow grouping using <workflowNode>...

Map Data Display Spatial Display Peak Heights Topology Modifier Web Browser Manual Forecast

Deltares

Gerben Boot Current system time: Fri 23-08-2019 07:30 GMT 14:28:57 GMT 15:28:55

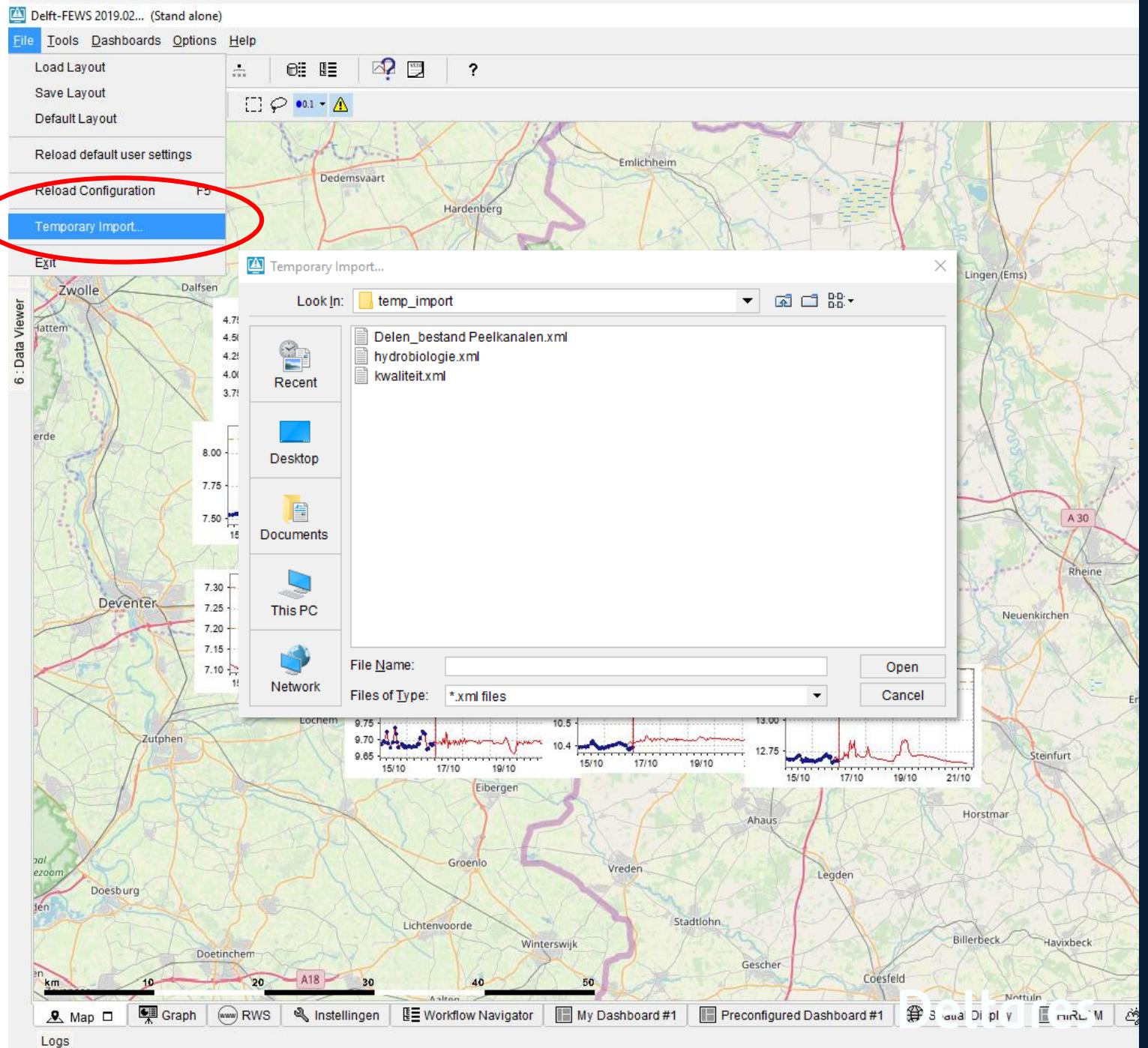
Delft - FEWS International User Days 2019

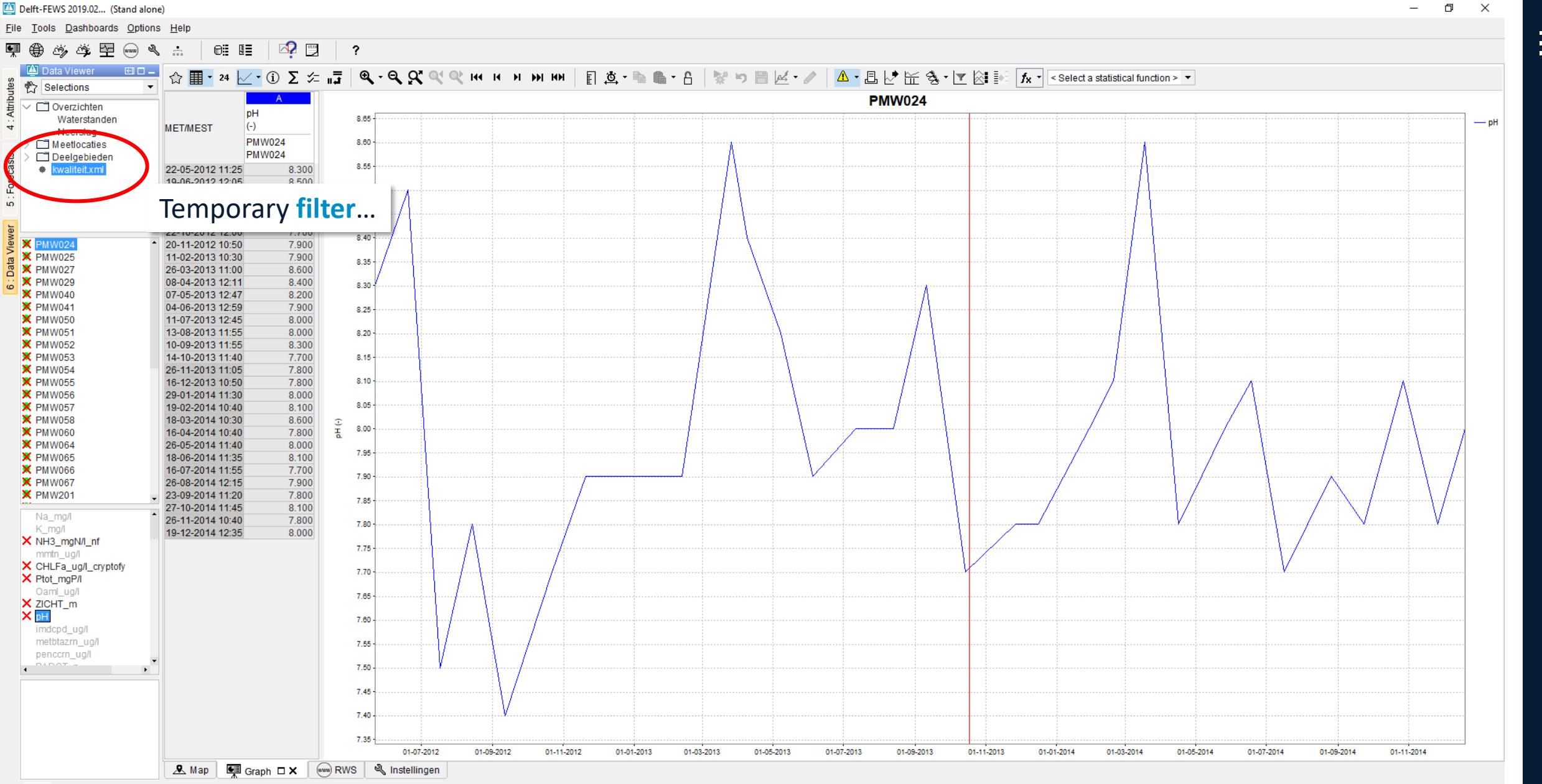


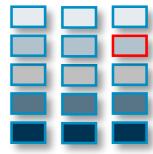
# With 2019.02, I can...

import...

- PI.XML files temporary **without configuration**...
- **Share and inspect** (PI.XML) files from other applications, institutes...
- **Future work: extend formats** to all supported '**interactive**' formats...



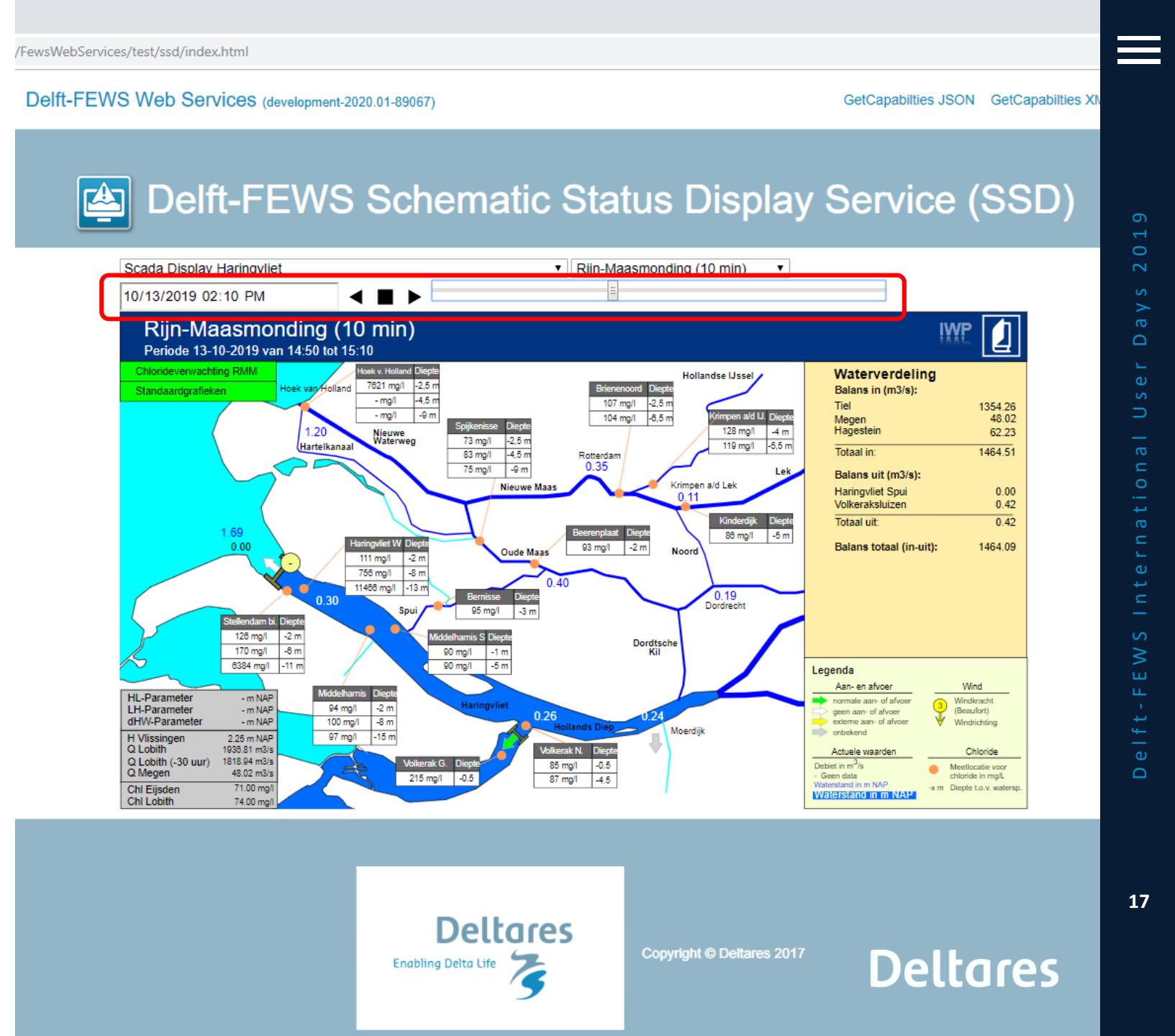




# With 2019.02, I can...

share...

- My **schematic status display panels** on the web
- **Timeslider...**
- **Drop-down lists for groups and panels...**



Delft-FEWS Schematic Status Display Service (SSD)

Scada Display Haringvliet

10/13/2019 02:10 PM

Rijn-Maasmonding (10 min)

Periode 13-10-2019 van 14:50 tot 15:10

**Chlorideverwachting RMM**

**Standaardgrafieken**

**Hoek v Holland** Diepte  
7821 mg/l -2.5 m  
- mg/l -4.5 m  
- mg/l -9 m

**Spijkersse** Diepte  
73 mg/l -2.5 m  
83 mg/l -4.5 m  
75 mg/l -9 m

**Brienoord** Diepte  
107 mg/l -2.5 m  
104 mg/l -6.5 m

**Krimpen a/d U.** Diepte  
128 mg/l -4 m  
119 mg/l -5.5 m

**Haringvliet W.** Diepte  
111 mg/l -2 m  
756 mg/l -8 m  
11468 mg/l -13 m

**Oude Maas** Diepte  
93 mg/l -2 m

**Bijenplaats** Diepte  
95 mg/l -3 m

**Nieuwe Maas**

**Stellendam b.** Diepte  
126 mg/l -2 m  
170 mg/l -6 m  
6384 mg/l -11 m

**Middelhamis S** Diepte  
90 mg/l -1 m  
90 mg/l -5 m

**Bermisse** Diepte  
95 mg/l -3 m

**Dordtsche Kil**

**Dordrecht**

**Moerdijk**

**HL-Parameter** - m NAP  
**LH-Parameter** - m NAP  
**dHW-Parameter** - m NAP

**H Vlissingen** 2.25 m NAP  
**Q Lobith** 1938.81 m3/s  
**Q Lobith (-30 uur)** 1818.94 m3/s  
**Q Megen** 48.02 m3/s

**Chl Eijsden** 71.00 mg/l  
**Chl Lobith** 74.00 mg/l

**Rijn-Maasmonding (10 min)**

**Rijn-Maasmonding (10 min)**

**Haringvliet (10 min)**

**Haringvlietsluizen (10 min)**

**Haringvliet zoutscherf (10 min)**

**Waterverdeling**

**Balans in (m3/s):**

- Tiel 1354.26
- Megen 48.02
- Hagestein 62.23

**Totaal in:** 1464.51

**Balans uit (m3/s):**

- Haringvliet Spui 0.00
- Volkeraksluizen 0.42

**Totaal uit:** 0.42

**Balans totaal (in-uit):** 1464.09

**Legenda**

Aan- en afvoer

- normale aan- of afvoer
- groen aan- of afvoer
- geel aan- of afvoer
- oranje aan- of afvoer
- rood aan- of afvoer
- blauw aan- of afvoer

Wind

- Windkracht (Beaufort)
- Windrichting

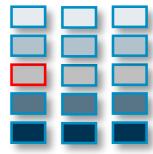
Chloride

- Meelijcijns voor chloride in mg/L
- Diepte t.o.v. waterspiegel in m
- Diepte t.o.v. NAP in m

Copyright © Deltires 2017

Deltires - voettekst

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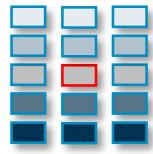
# With 2019.02, I can...

export...

- General adapter: **Rating curves** with **comments** and option to export 'onlyLastAvailable' (GA)
- PI web service: **NetCDF export** including **zipping**

```
<exportRatingCurveActivity>
    <exportFile>exportedRatingCurves.xml</exportFile>
    <onlyLatestAvailable>true</onlyLatestAvailable>
    <locationsetId>AllLocations</locationsetId>
</exportRatingCurveActivity>
```

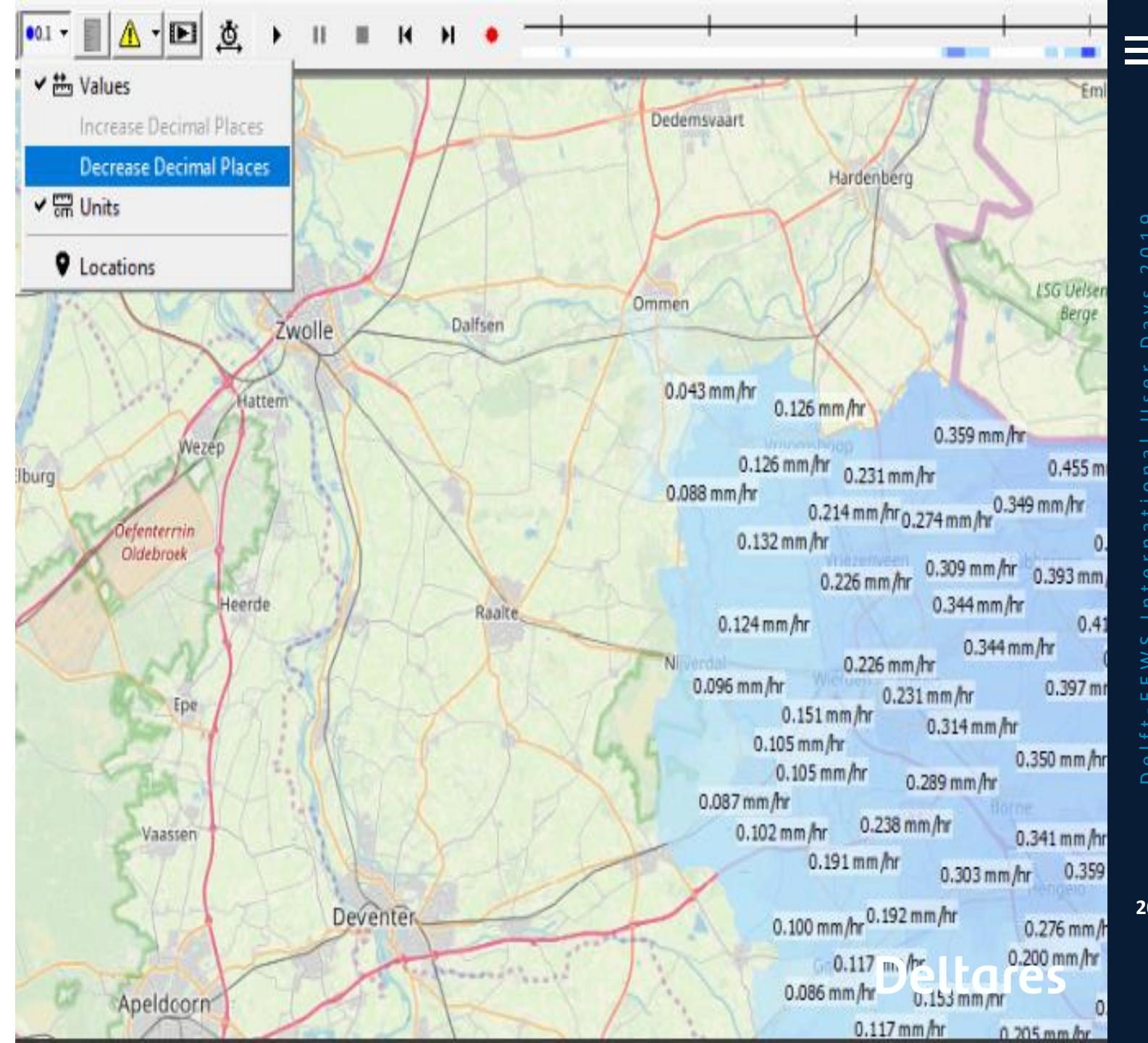
```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <RatingCurves xmlns="http://www.wldelft.nl/fews/PI" xmlns:xsi="http://www.w3.org/2001/XMLSchema-in:
3      http://fews.wldelft.nl/schemas/version1.0/pi-schemas/pi_ratingcurves.xsd">
4          <timeZone>0.0</timeZone>
5          <ratingCurve>
6              <header>
7                  <locationId>LocA</locationId>
8                  <startDate date="2019-01-15" time="14:00:00"/>
9                  <stationName>LocA</stationName>
10                 <stageUnit>m</stageUnit>
11                 <dischargeUnit>m3/s</dischargeUnit>
12                 <comment>Table01</comment>
13             </header>
14             <table>
15                 <interpolationMethod>linear</interpolationMethod>
16                 <minStage>0</minStage>
17                 <maxStage>2.23</maxStage>
18                 <row stage="0" discharge="0"/>
19                 <row stage="0.12" discharge="0.01"/>
20                 <row stage="0.3" discharge="0.05"/>
21                 <row stage="0.4" discharge="0.1"/>
22                 <row stage="0.5" discharge="0.2"/>
23                 <row stage="0.7" discharge="0.5"/>
<row stage="0.85" discharge="1"/>
<row stage="1.06" discharge="2"/>
<row stage="1.2" discharge="3"/>
<row stage="1.32" discharge="4.1"/>
<row stage="1.49" discharge="6.08"/>
<row stage="1.59" discharge="7.45"/>
<row stage="1.68" discharge="8.9"/>
<row stage="1.71" discharge="9.38"/>
<row stage="1.8" discharge="10.99"/>
<row stage="1.85" discharge="12.01"/>
<row stage="1.89" discharge="12.77"/>
<row stage="1.98" discharge="14.75"/>
<row stage="2.23" discharge="20.3"/>
             </table>
         </ratingCurve>
     </RatingCurves>
```

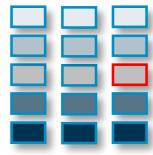


# With 2019.02, I can...

change...

- the **number of decimals** in my labels

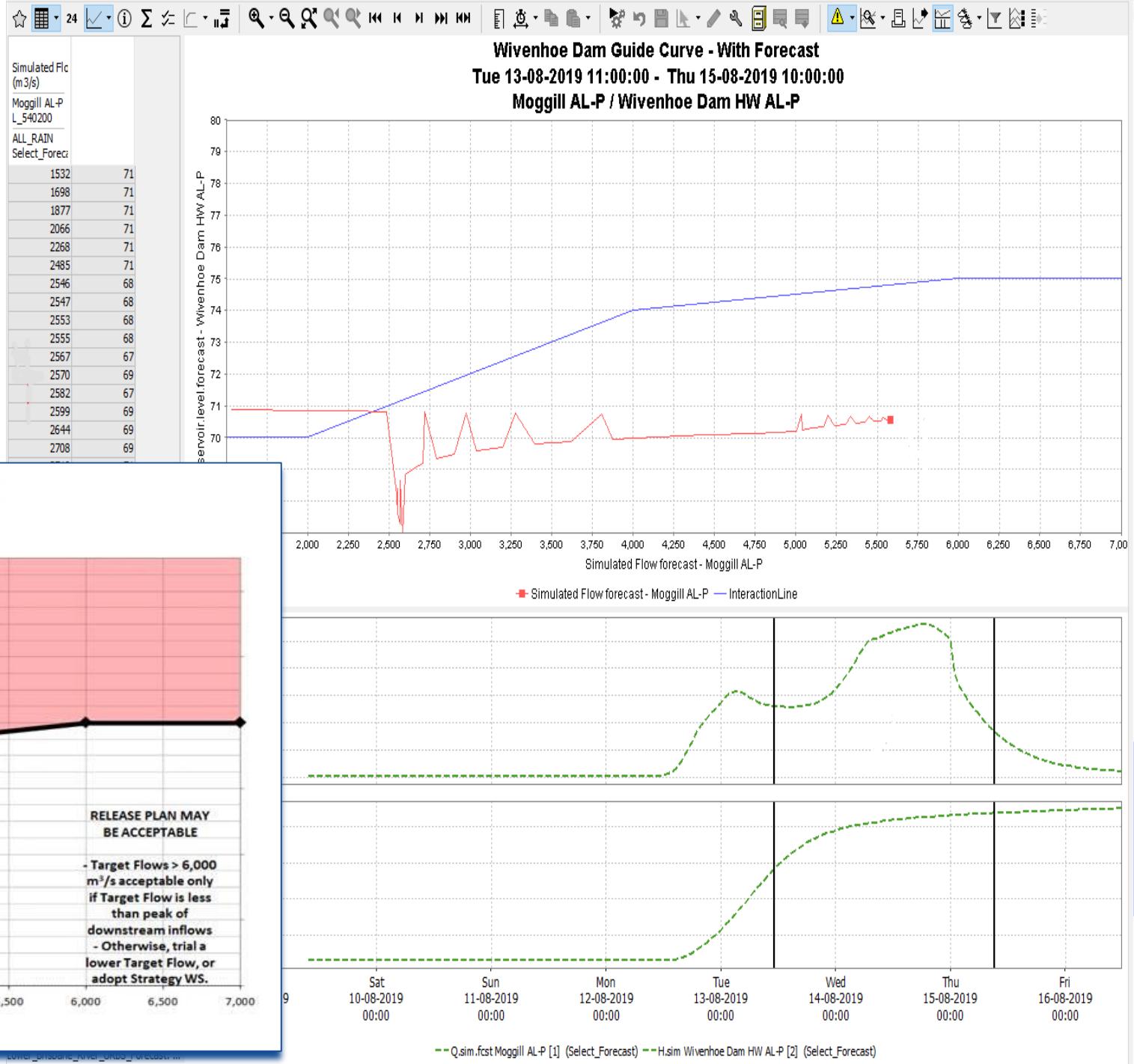
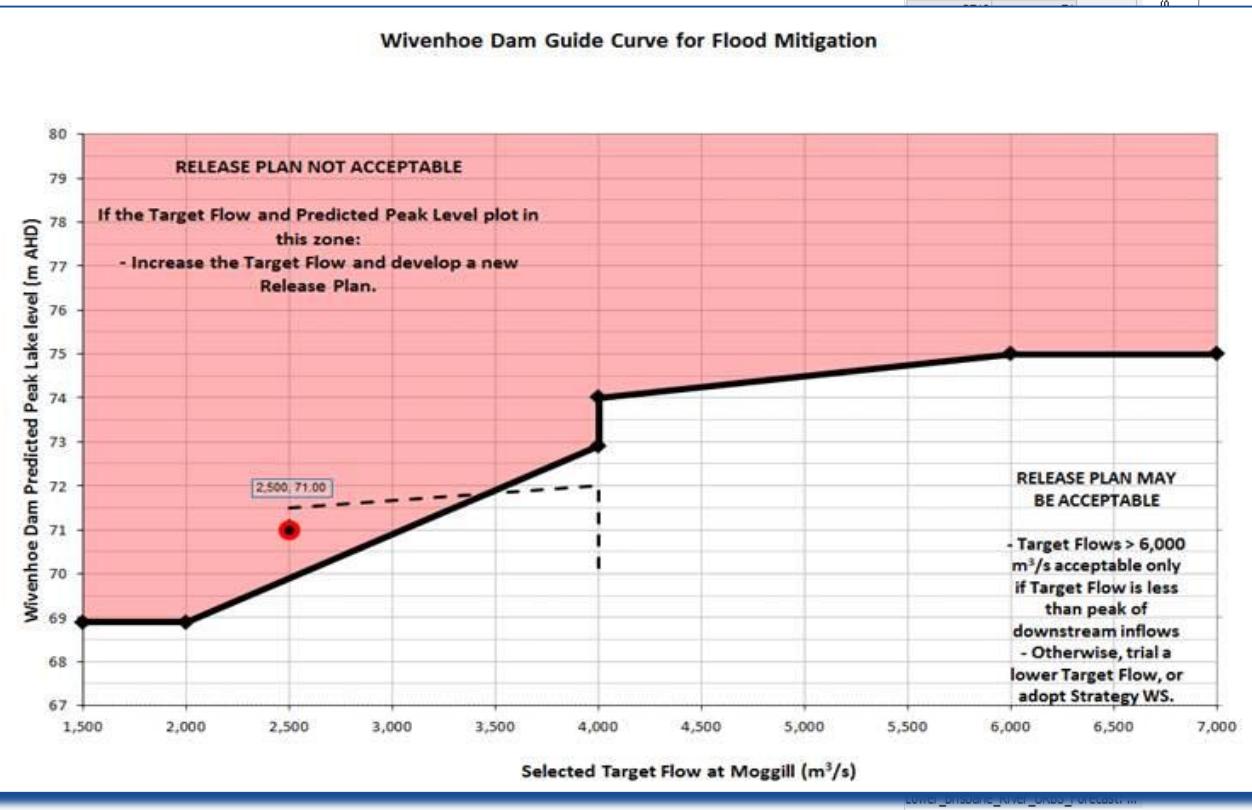


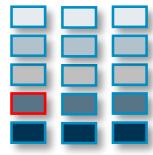


# With 2019.02, I can...

include...

- Scatterplot for 2 locations with different parameters

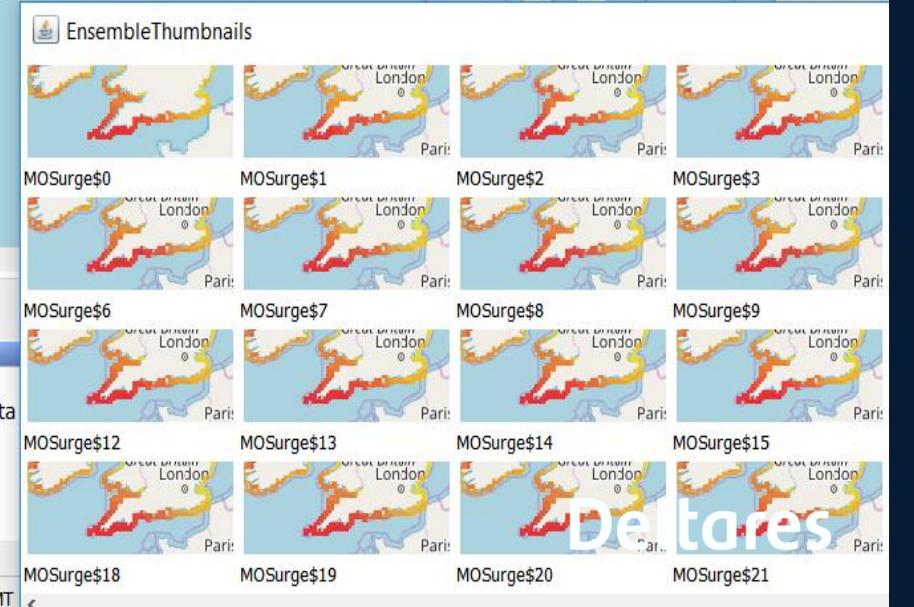
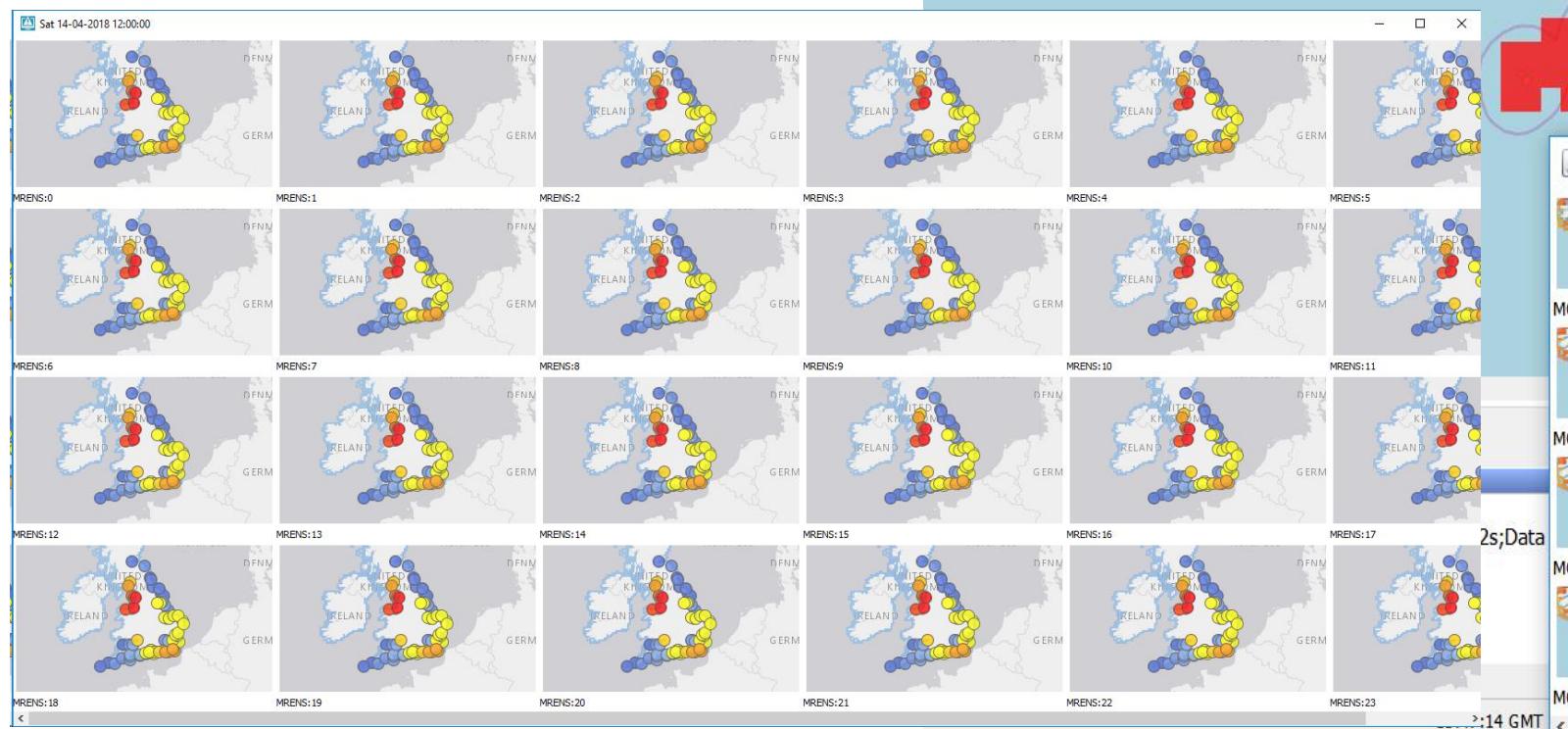
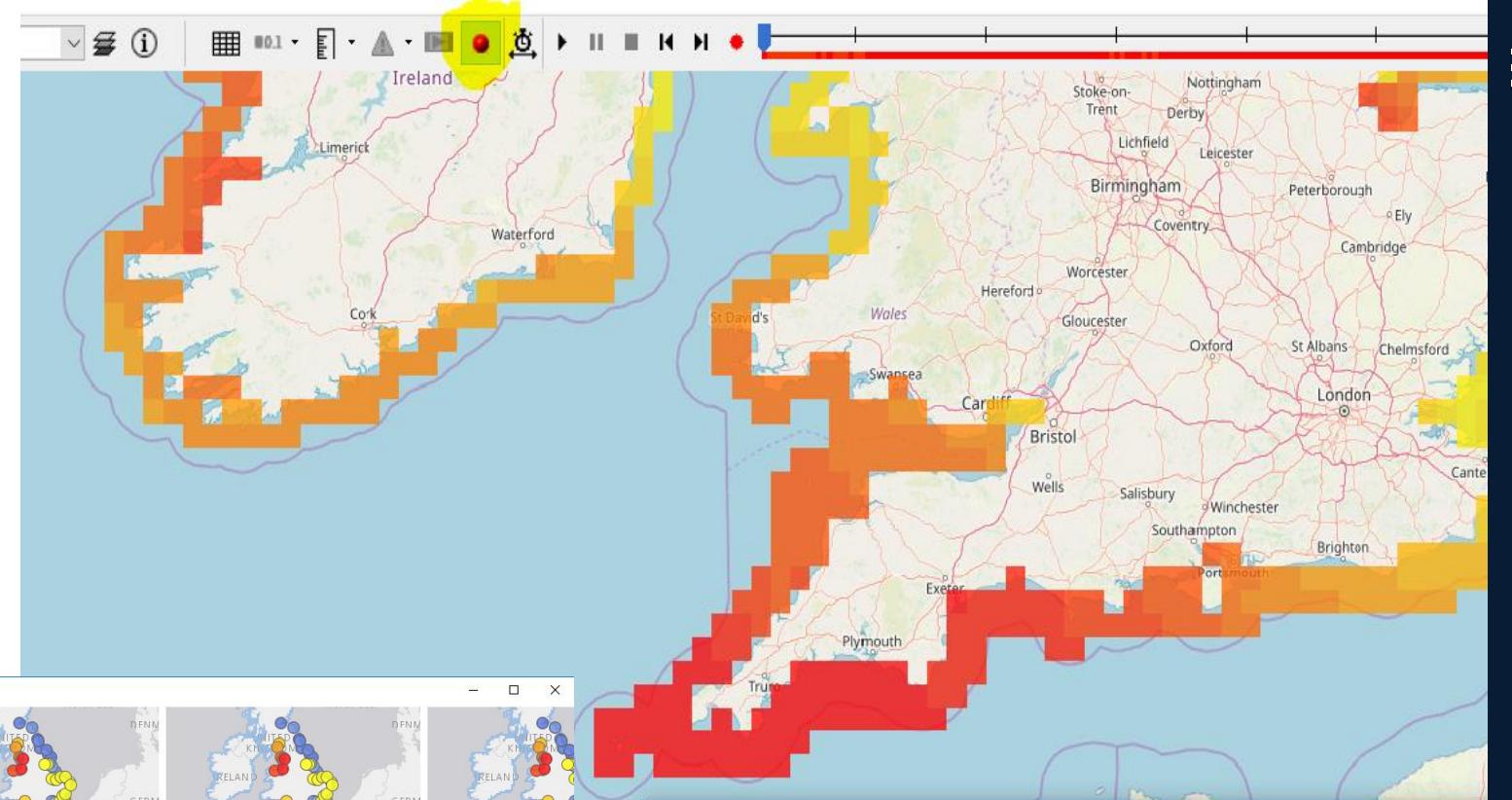


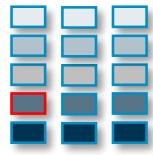


# With 2019.02, I can...

view...

- Ensemble members sub plots in the Spatial thumbnails

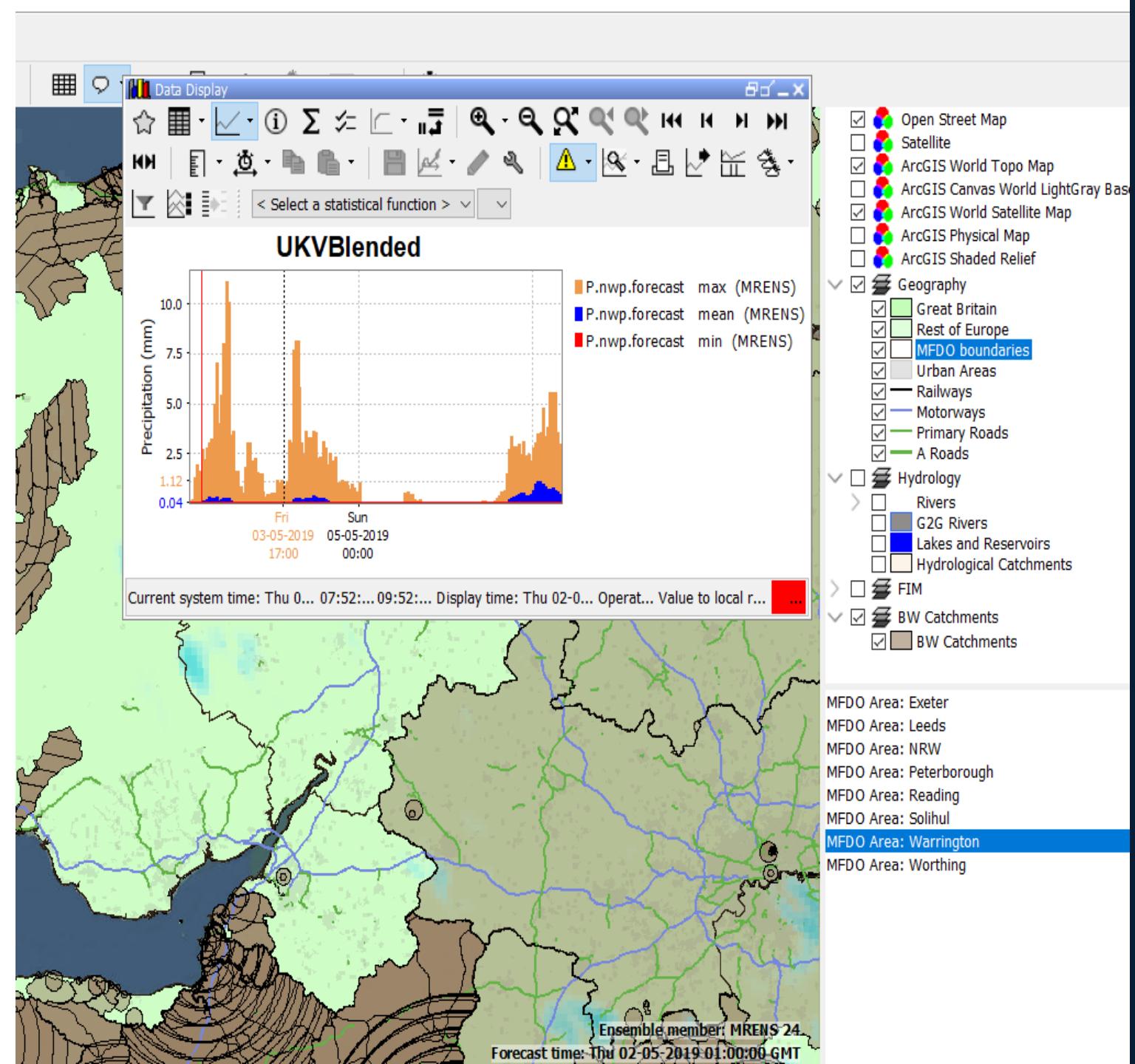


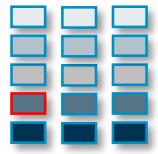


# With 2019.02, I can...

view...

- Ensemble members sub plots in the Spatial thumbnails
- Grid statistics on the fly for a polygon





# With 2019.02, I can...

view...

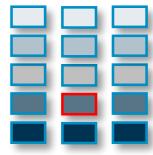
- Ensemble members sub plots in the Spatial thumbnails
- Grid statistics on the fly for a polygon
- Run times of workflows in the admin interface

RDRD (Regge) - Scheduled Tasks

System Status Forecast Tasks Scheduled Tasks Running Tasks Workflow and FSSs Files User Administration System Control Software Management Database Analysis Documentation Logout admin Timezone: GMT © Deltares Build version: stable\_2019.02 (89127) Build date: 30/10/2019 19:37

Filters + Schedule || Suspend ► Resume ✘ Cancel ⌂ Download ⌂ Upload Search:

Workflow Id	Actions	Tag	Priority	Interval	Next Due Time	Task Status	Latest Task Run Dispatch Time	Latest Task Run Status	Latest Task Run Time
Archive_Export	[Icons]		Normal	1d	02/11/2019 06:00:00	Pending	01/11/2019 06:00:01	Complete	18s
Database_Maintenance	[Icons]		Normal	days 1 9 17 25 of each month at 0:00	09/11/2019 00:00:00	Pending	01/11/2019 00:00:02	Complete	3m 56s
Export_Current	[Icons]	Datastore.NewCurrentRun	Normal	One-off task	06/11/2050 19:06:00	Suspended			
Export_FEWS_Vecht	[Icons]	Datastore.NewCurrentRun	Normal	One-off task	14/08/2050 13:40:00	Suspended			
Import_Data	[Icons]		Normal	15m	01/11/2019 11:05:00	Pending	01/11/2019 10:50:00	Complete	10s
Import_WIWB	[Icons]		Normal	5m	01/11/2019 11:05:00	Pending	01/11/2019 11:00:00	Complete	10s
Import_WIWB_dag	[Icons]		Normal	1d	02/11/2019 10:30:00	Pending	01/11/2019 10:30:00	Complete	9s
Import_WIWB_uur	[Icons]		Normal	1h	10/11/2019 11:10:00	Pending	31/10/2019 10:10:00	Terminated	
MC_SystemAlerter	[Icons]		Normal	One-off task	15/09/2050 05:49:00	Pending			
MC_SystemAlerter	[Icons]	SYSMON:Restarting	Normal	One-off task	31/03/2050 13:01:00	Suspended			
MC_SystemAlerter	[Icons]	SYSMON:FSSLost	Normal	One-off task	31/03/2050 14:30:00	Suspended			
Model_Performance	[Icons]		Normal	1d	02/11/2019 01:00:00	Pending	01/11/2019 01:00:00	Complete	4s
Sobek_Regge_Forecast	[Icons]		Normal	6h	01/11/2019 11:30:00	Pending	01/11/2019 05:30:00	Complete	12m 17s



# With 2019.02, I can...

analyze...

- All changes via the admin interface and operator client in an **audit trail**

RDRD (Regge) - Logs

System Status

Dashboard

Master Controllers

Forecasting Shell Servers

View Logs

Log Manager

Collect System Log Files

Forecast Tasks

Workflow and FSSs

Files

User Administration

System Control

Software Management

Database Analysis

Documentation

Logout Marcel Ververs

Timezone: GMT

© Deltares

Build version: stable\_2019.02 (89127)

Build date: 30/10/2019 19:37

Entry date from GMT

Entry date to GMT

Build

Syslog

Log Level

Show 50 entries

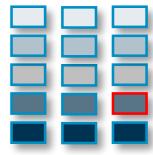
Download logs

x

z

q

Code	Entry Time	Level	Source	Text	Build
SYSLOG.AI.AddWorkflowFssGroupMapping	01/11/2019 11:20:35	INFO	MC RDREMC00:000799489	Marcel Ververs - Added FSS Group 'sobek' mapping to workflowId: 'Database_Maintenance'	89127
SYSLOG.AI.AddWorkflowFssGroupMapping	01/11/2019 11:20:27	INFO	MC RDREMC00:000799489	Marcel Ververs - Added FSS Group 'sobek' mapping to workflowId: 'Export_Current'	89127
SYSLOG.AI.ResumeScheduledTask:Sobek_Regge_Forecast	01/11/2019 11:19:47	INFO	MC RDREMC00:000799489	Marcel Ververs - Resumed task with id: 'RDREMC00:0000469'	89127
SYSLOG.AI.AddUser	01/11/2019 11:18:09	INFO	MC RDREMC00:000799489	admin - Added user: UserData(userId=null, mcId='RDREMC00', userName='Marcel Ververs', userDisplay...)	89127
SYSLOG.AI.EditFssGroup	01/11/2019 11:16:14	INFO	MC RDREMC00:000799489	admin - Edited FSS Group: FssGroupData{fssGroupId='windows', fssGroupName='windows', description=...}	89127
SYSLOG.AI.EditFssGroup	01/11/2019 11:16:10	INFO	MC RDREMC00:000799489	admin - Edited FSS Group: FssGroupData{fssGroupId='sobek', fssGroupName='sobek fss', description=...}	89127
SYSLOG.AI.DeleteWorkflowFssGroupMapping	01/11/2019 11:15:57	INFO	MC RDREMC00:000799489	admin - Deleted FSS Group 'windows' mapping to workflowId: 'Import_WIWB'	89127
SYSLOG.AI.DeleteWorkflowFssGroupMapping	01/11/2019 11:15:56	INFO	MC RDREMC00:000799489	admin - Deleted FSS Group 'windows' mapping to workflowId: 'Export_FEWS_Vecht'	89127
SYSLOG.AI.AddWorkflowFssGroupMapping	01/11/2019 11:13:50	INFO	MC RDREMC00:000799489	admin - Added FSS Group 'windows' mapping to workflowId: 'Import_WIWB'	89127
SYSLOG.AI.AddWorkflowFssGroupMapping	01/11/2019 11:13:40	INFO	MC RDREMC00:000799489	admin - Added FSS Group 'windows' mapping to workflowId: 'Export_FEWS_Vecht'	89127
SYSLOG.AI.DeleteWorkflowFssGroupMapping	01/11/2019 11:13:39	INFO	MC RDREMC00:000799489	admin - Deleted FSS Group 'sobek' mapping to workflowId: 'Export_FEWS_Vecht'	89127
SYSLOG.AI.DeleteWorkflowFssGroupMapping	01/11/2019 11:13:35	INFO	MC RDREMC00:000799489	admin - Deleted FSS Group 'windows' mapping to workflowId: 'Export_FEWS_Vecht'	89127
SYSLOG.AI.AddWorkflowFssGroupMapping	01/11/2019 11:13:31	INFO	MC RDREMC00:000799489	admin - Added FSS Group 'windows' mapping to workflowId: 'Export_FEWS_Vecht'	89127
SYSLOG.AI.AddWorkflowFssGroupMapping	01/11/2019 11:13:30	INFO	MC RDREMC00:000799489	admin - Added FSS Group 'sobek' mapping to workflowId: 'Export_FE_IS_e_it'	89127
SYSLOG.AI.EditFssGroup	01/11/2019 11:13:17	INFO	MC RDREMC00:000799489	admin - Edited FSS Group: FssGroupData{fssGroupId='windows', fssGroupName='windows', description=...}	89127



# With 2019.02, I can...

manage...

- my **workflow mappings** much easier

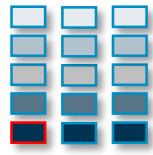
RDRD (Regge) - Workflow FSS Groups Mappings

System Status | Forecast Tasks | Workflow and FSSs | Workflows | Workflow FSS Groups Mapping | FSS Groups | Event and Actions | Files | User Administration | System Control | Software Management | Database Analysis | Documentation | Logout admin | Timezone: GMT | © Deltasoft | Build version: stable\_2019.02 (89127) | Build date: 30/10/2019 19:37

Download | Upload | Delete | Search:

Workflow	sobek	windows
Archive_Export	<input type="checkbox"/>	<input type="checkbox"/>
Archive_Snapshot	<input type="checkbox"/>	<input type="checkbox"/>
Database_Maintenance	<input type="checkbox"/>	<input type="checkbox"/>
Export_Current	<input type="checkbox"/>	<input type="checkbox"/>
Export_FEWS_Vecht	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Import_Archive	<input type="checkbox"/>	<input type="checkbox"/>
Import_Archive_Forecast	<input type="checkbox"/>	<input type="checkbox"/>
Import_Data	<input type="checkbox"/>	<input type="checkbox"/>
Import_WIWB	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Import_WIWB_dag	<input type="checkbox"/>	<input type="checkbox"/>
Import_WIWB_uur	<input type="checkbox"/>	<input type="checkbox"/>
Model_Performance	<input type="checkbox"/>	<input type="checkbox"/>
Regge_FloodMap_12h	<input type="checkbox"/>	<input type="checkbox"/>
Sobek_Regge_FastForecast	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sobek_Regge_Forecast	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sobek_Regge_Historical	<input checked="" type="checkbox"/>	<input type="checkbox"/>

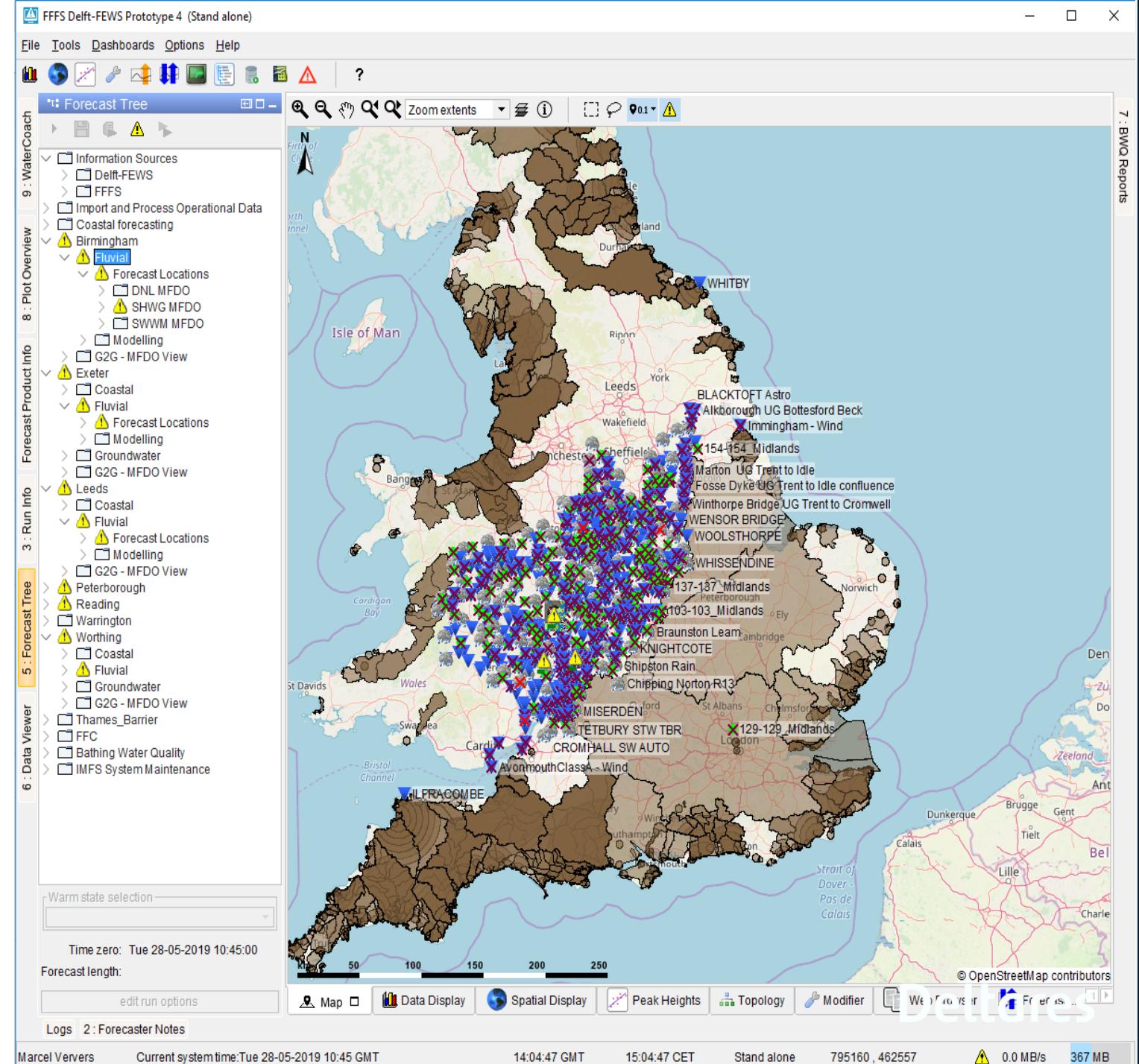
Showing 1 to 16 of 16 entries



# With 2019.02, I can...

visualize...

- Thresholds in the Forecast tree



# With 2019.02, I can...

create...

- Product Information in a panel

The screenshot displays the FEWS NFFS Prototype 2 software interface across three main sections:

- Top Right Panel:** A map of the United Kingdom and Ireland showing rainfall forecasts. The map includes a color-coded legend for precipitation levels (blue for low, green for moderate, yellow for high, orange for very high, red for extreme) and a scale bar from 300 to 500 km. A red box highlights the "Web Browser" section.
- Middle Left Panel:** A "Data Viewer" window for the "Abbeystead Reservoir". It shows a time-series plot of Discharge (m³/s) from March 31 to April 6, 2018. The plot includes historical data (blue line), simulated forecasts (green lines), and a precipitation forecast (red line). A red box highlights the "Forecast Product Info" table at the bottom of this panel.
- Bottom Left Panel:** A "Forecast Product Info" table showing details for three products: SRF and G2G forecasts, and a merged product. The table includes columns for Product, For Time, Data Time, Use, User, Category, Confidence, Comment, and Status. The "SRF" row is highlighted with a red border.

Deltres

# With 2019.02, I can...

modify...

- Spatially...

Create new spatial modifier

**Summary**

N9 Precipitation (T0: Tue 16-04-2019 13:00:00) - from Fri 19-04-2019 12:00:00 to Fri 19-04-2019 19:00:00 (1 parts, 5 points)

**Modifier Properties**

Name N9 Precipitation (T0: Tue 16-04-2019 13:00:00)

Priority 1

**Validity**

Please select when the new modifier should be valid

Only valid for current forecast

Always valid

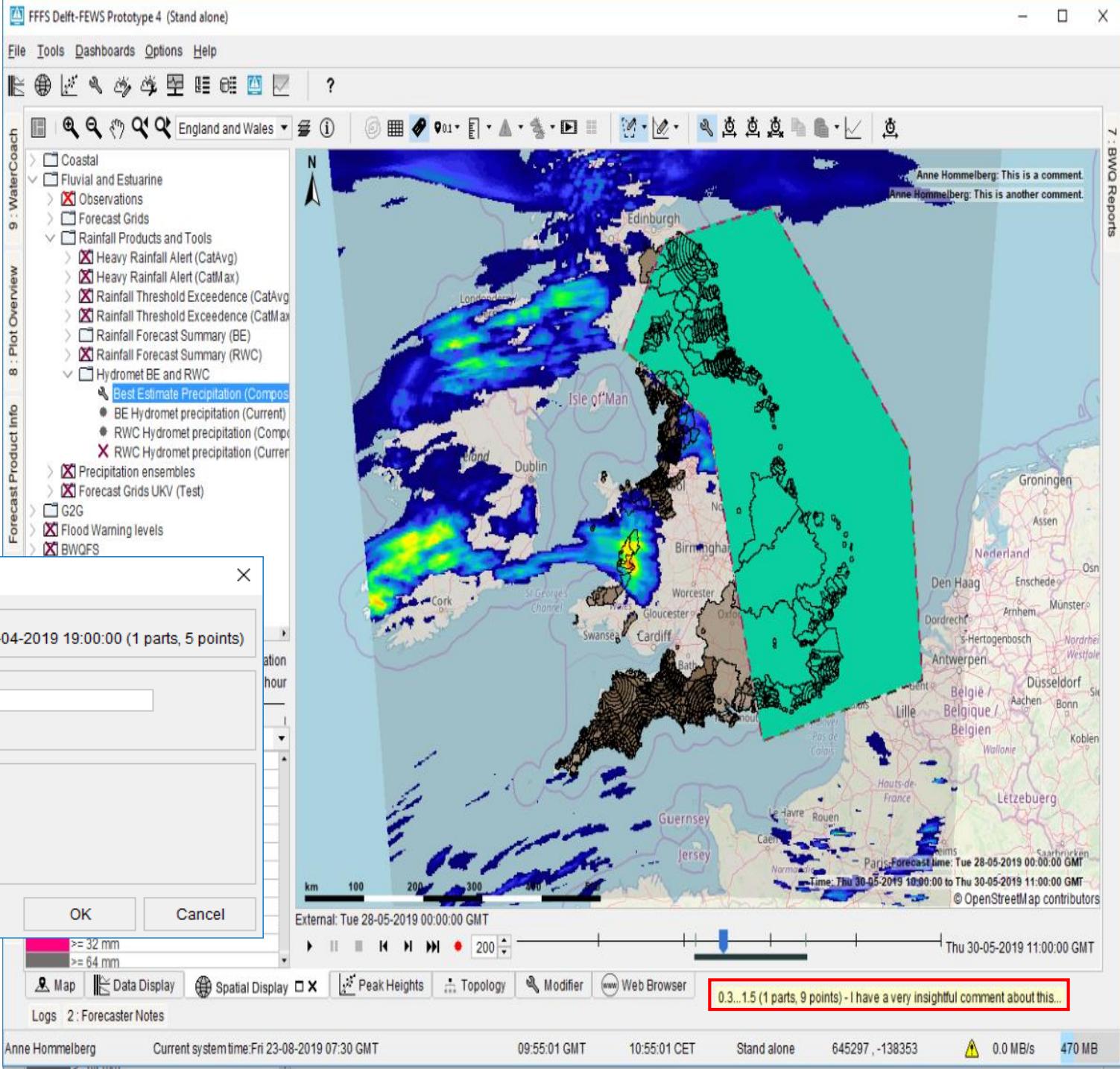
OK Cancel

>= 32 mm  
>= 64 mm

Map Data Display Spatial Display Peak Heights Topology Modifier Web Browser

Logs 2: Forecaster Notes

Anne Hommelberg Current system time: Fri 23-08-2019 07:30 GMT 09:55:01 GMT 10:55:01 CET Stand alone 645297, -138353 0.0 MB/s 470 MB





# Outlook 2020...

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- **Features planned...**
  - Archive: Search & download (Reference Web Application)
  - Web services: extended SVG (Schematic Status Display)
  - Web services: extended WMS
  - Master controller / Admin Interface
  - Model adapters...
  - Delft-FEWS 2025 – annual roadmap 2020 (e.g. design Web Operator Client, Scenario management)
- **Functionalities removed** in the coming years...

2020.01	2020.02	2021.01	2021.02
PRTF display	Old synchronization code	Embedded PI service (removal)	TransformationSets
Trend display	Old archiving module	'What-if' scenarios ( <b>only if</b> alternative is available)	InterpolationSets
Lookup display	TransformationSets (prep)		LookUpSets
2 <sup>nd</sup> map display (zoom)	Embedded PI service (prep)		PerformanceIndicatorSets
Long. Profile display			



Delft-FEWS International User Days 2019

## Thank you for your attention!



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