

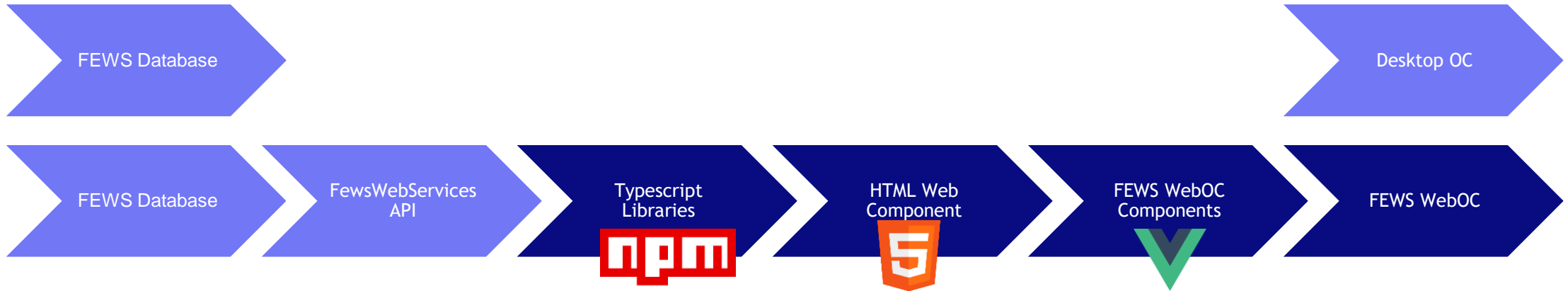
Web OC workshop introduction

- Web OC time line
- Architecture
- Current status
- How to get started
- Future developments and plans
- Questions

Web OC time line

Time Period	Activities
2020 Q4	International User Days. Presenting Web OC plans: Vision 2025 .
2021	Define use-cases and key assumptions and MVP. First steps towards technical architecture: Involve both Deltares and external colleagues.
	Start development work.
	International User Days. Present architecture and 3rd party collaboration. Interactive sessions on key functionality.
2022	Third-party testing of reusability Web OC building blocks.
	Continuation of development work. User feedback session during CSB meeting and NL/INT User Days.
	International User Days. Demonstration / Plug & Play session Web OC / UI/UX Design session.
2023	Continuation of development work.
	International User Days. Presentation status Web OC Developments. Dec 2023 2023.02 Delft-FEWS Web OC MVP Release . Software available on GitHub .
2024 onwards	Web OC Development in line with the current Delft-FEWS business model.

Architecture



- All required configuration for the Web OC is part of regular Delft-FEWS configuration in the database
- All information/data is retrieved through the FewsWebServices
- Multiple FewsWebServices and Web OC instances can use the same database
- FewsWebServices and Web OC support OpenIDConnect authentication

Current status

- Web OC version 1.0.0 available since January 2024
- 2023.02 is the first Delft-FEWS release supporting the Web OC
- Navigation in the Web OC primarily via the Topology
 - No duplicate folderstructures



FORECAST

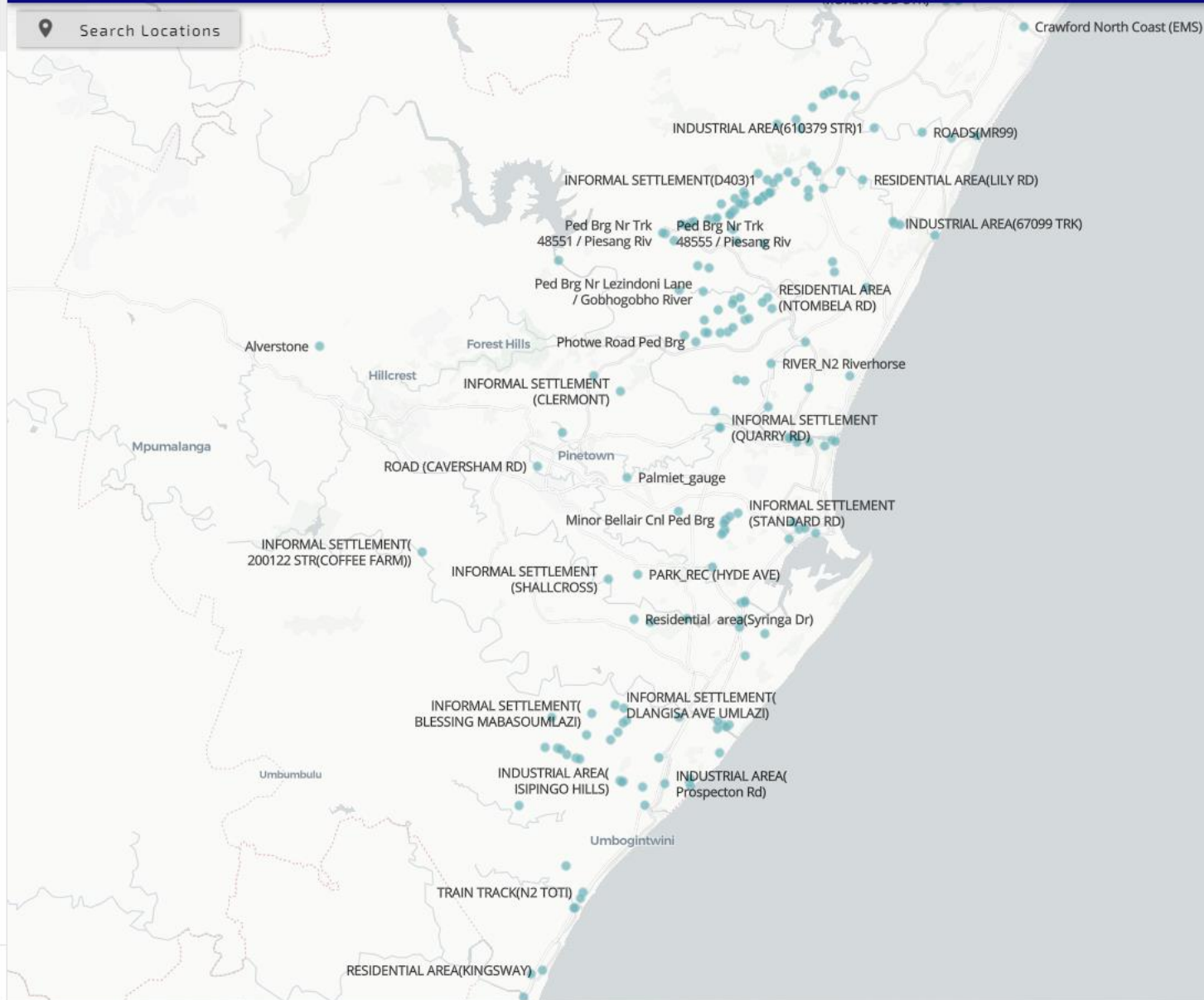
21:18 CEST



Search Locations

- Rainfall
 - Forecast
 - Observed
 - Comparison
 - Hazard map
- Wind
 - Global model
- Rivers
 - Level stations
 - Critical points
- Coastal
 - Water levels
 - Currents
 - Waves
 - Inundation (promenade)

Topology tree



Info

1.1.0-rc.0

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FORECAST

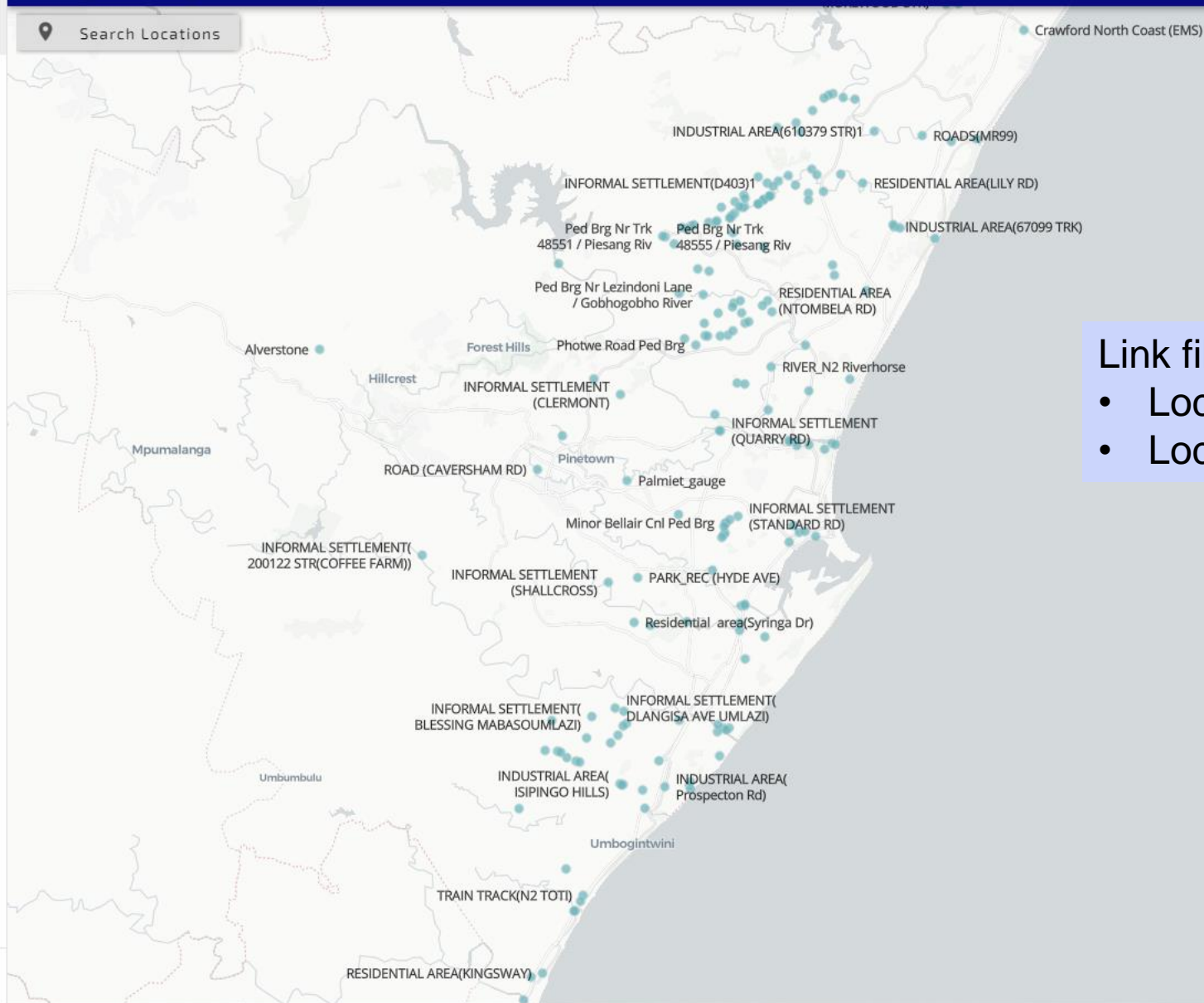
21:18 CEST



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Topology tree



- Link filterId to Topology node:
- Locations will appear on the map
 - Location icons as configured



Info

1.1.0-rc.0

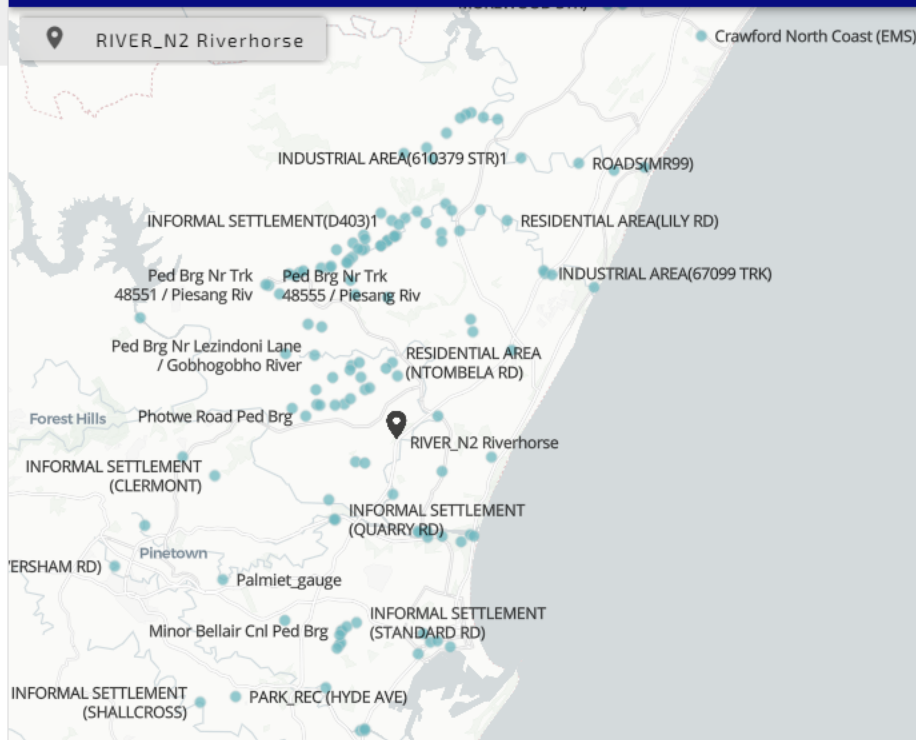


FORECAST

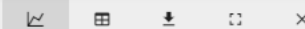
21:23 CEST



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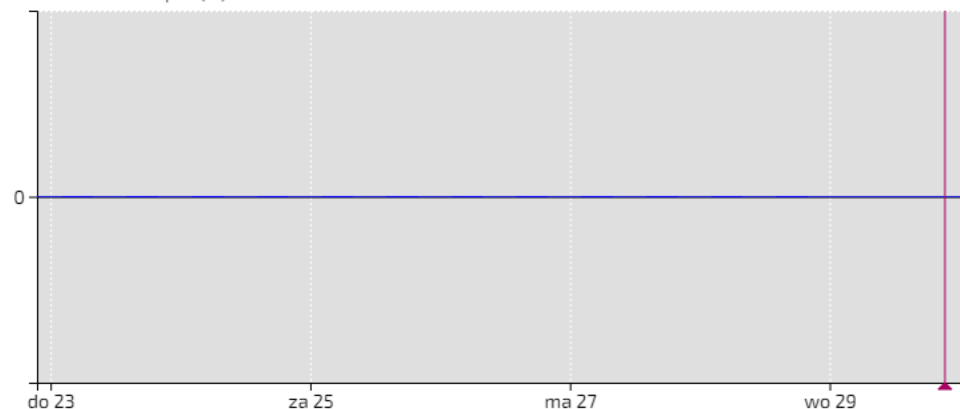


RIVER_N2 Riverhorse



Water depth [2] SFINCS

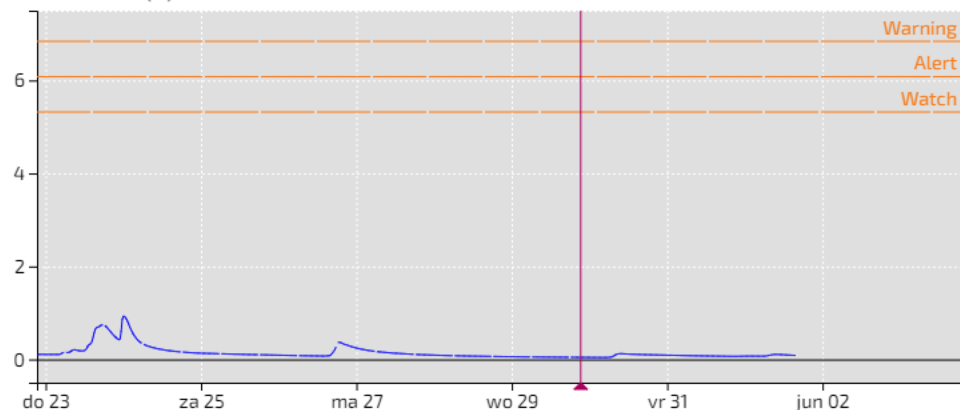
Total Water Depth (m)



Water Level [1] PCSWMM

Thresholds

Water Level (m)



Link filterId to Topology node:

- Time series are plotted (all parameters) for selected location (map / search box)
- Styling and meta-data consistent with Desktop OC
- Graph / table view
- Download plotted data in .csv, .JSON and .xml.

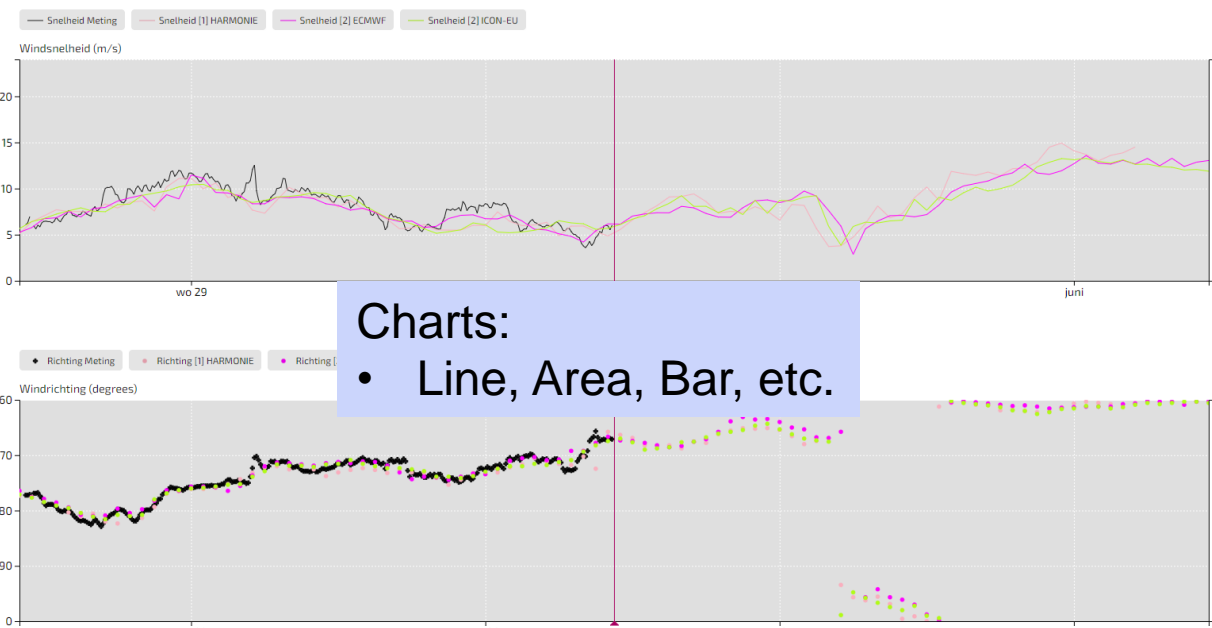
Info

1.1.0-rc.0

ANINGSWAY

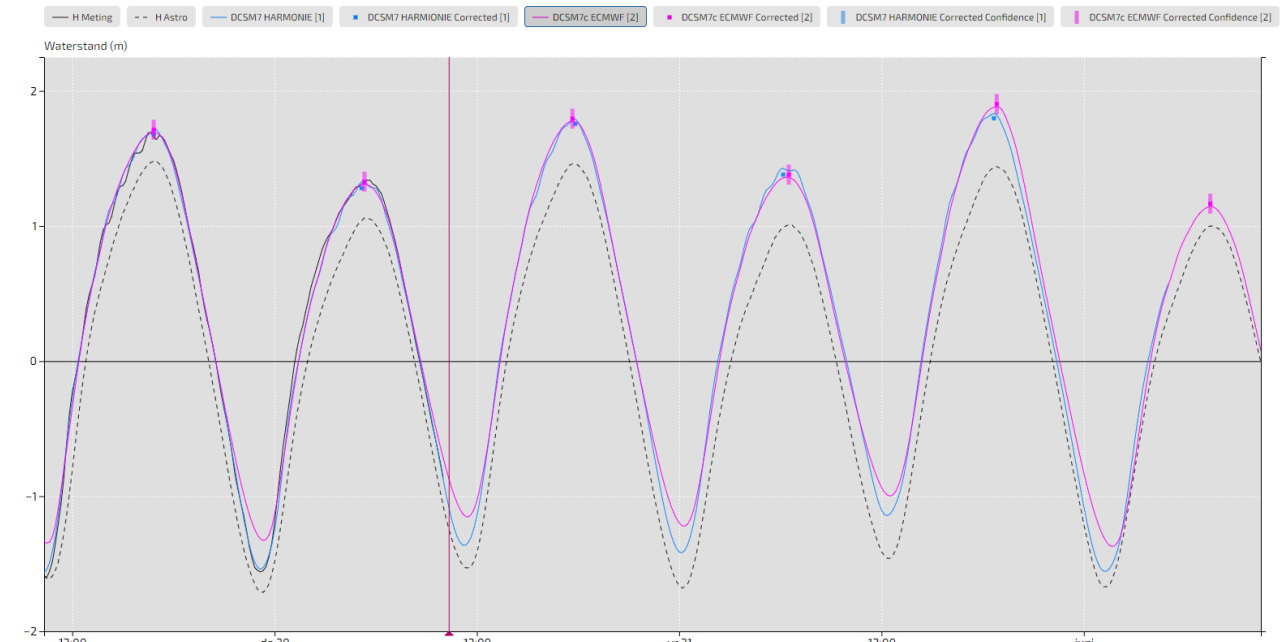
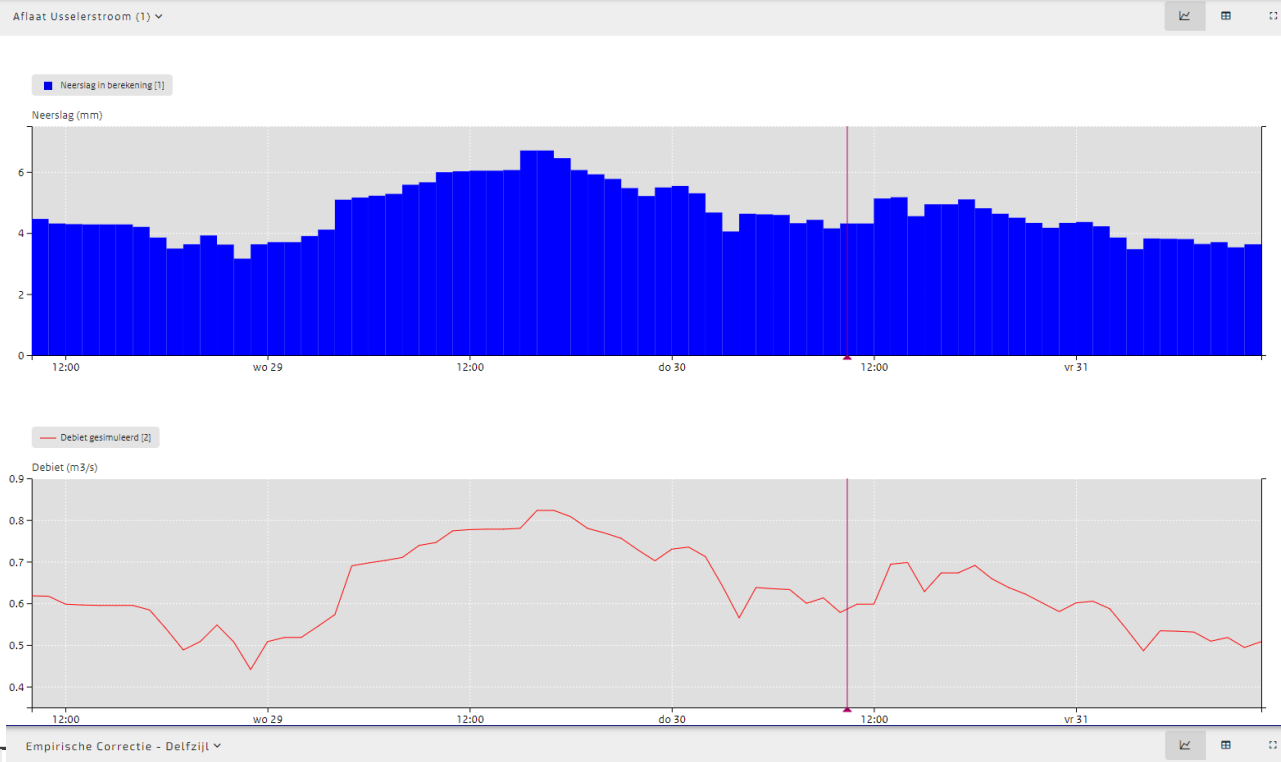
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Delius



Charts:

- Line, Area, Bar, etc.



Wind - K13a

Wind - K13a

Wind ensembles - K13a

HARMONIE

Snelheid [2] ECMWF

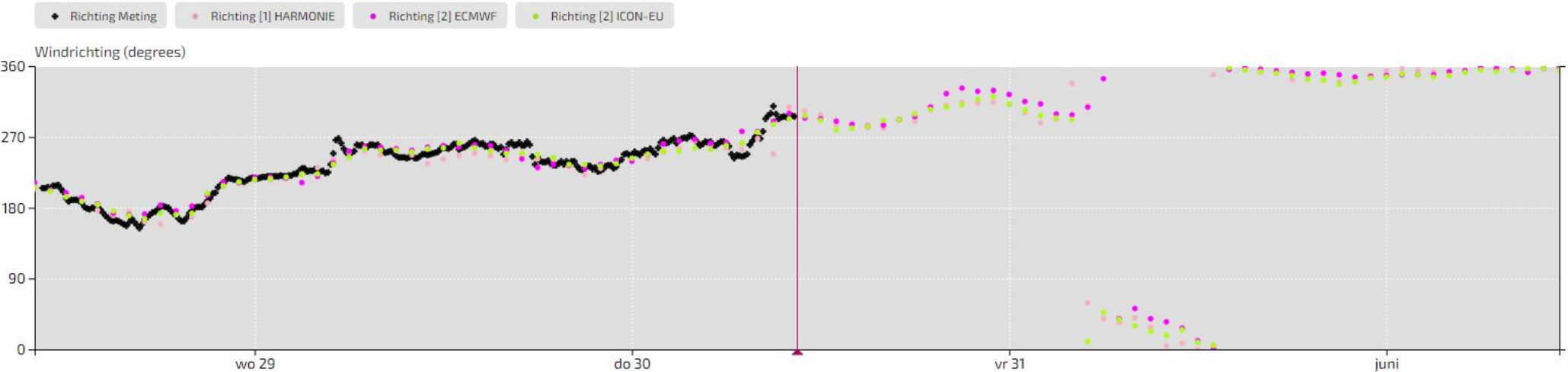
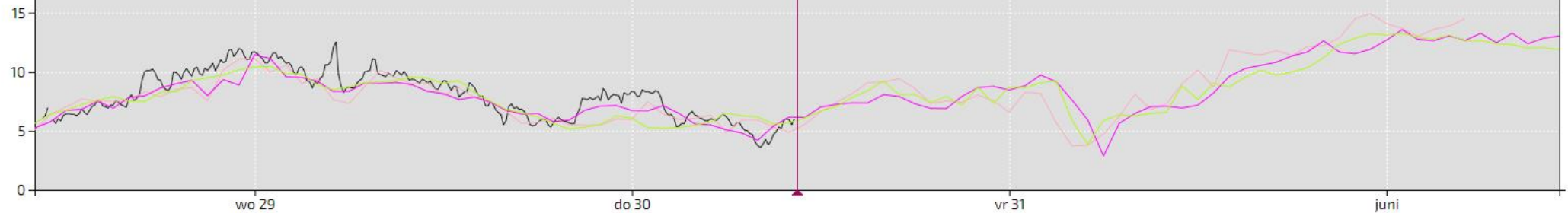
Snelheid [2] ICON-EU

Wind ensembles statistiek - K13a

Luchtdruk/Temperatuur - K13a

Link DisplayGroup to Topology node:

- All configured displays will be listed




Topology tree

Zeebrugge

Select component: Map, Charts, Download

Deltares TB

Data Viewer >



Australia ^

Rain Gauges v

River Gauges ^

Observed ^

Water Level

Discharge

Processed v

Forecast v

New South Wales ^

Rain Gauges ^

Observed ^

Accum

Event

AWS

RainObs

Processed v

River Gauges v

Northern Territory v

Queensland v


South Australia v


Tasmania v

Victoria

Western Australia

Topology tree

 Map Download

13:08 CEST 

Make a selection to download data


VIC


River Basin Name


Rain Dist ID

P.obs (Accum)

Campaspe River @ Rochester Syphon (202c) - H580010-01

 Start
2024-05-20 00:00

 End
2024-06-03 00:00

 DOWNLOAD

Link download component to topology node:

- Not available in Desktop OC
- Download by Filter, parameter, location and location attributes
- CSV, PI XML and PI JSON supported
- Select download period



Australia



Rain Gauges



Observed



Accum

Event

AWS

RainObs

Topology tree



River Gauges



New South Wales



Northern Territory



Queensland



South Australia



Tasmania



Victoria



Western Australia



Bureau of Meteorology



Deltares



Delft-FEWS Web OC



Copyright



About

Info menu

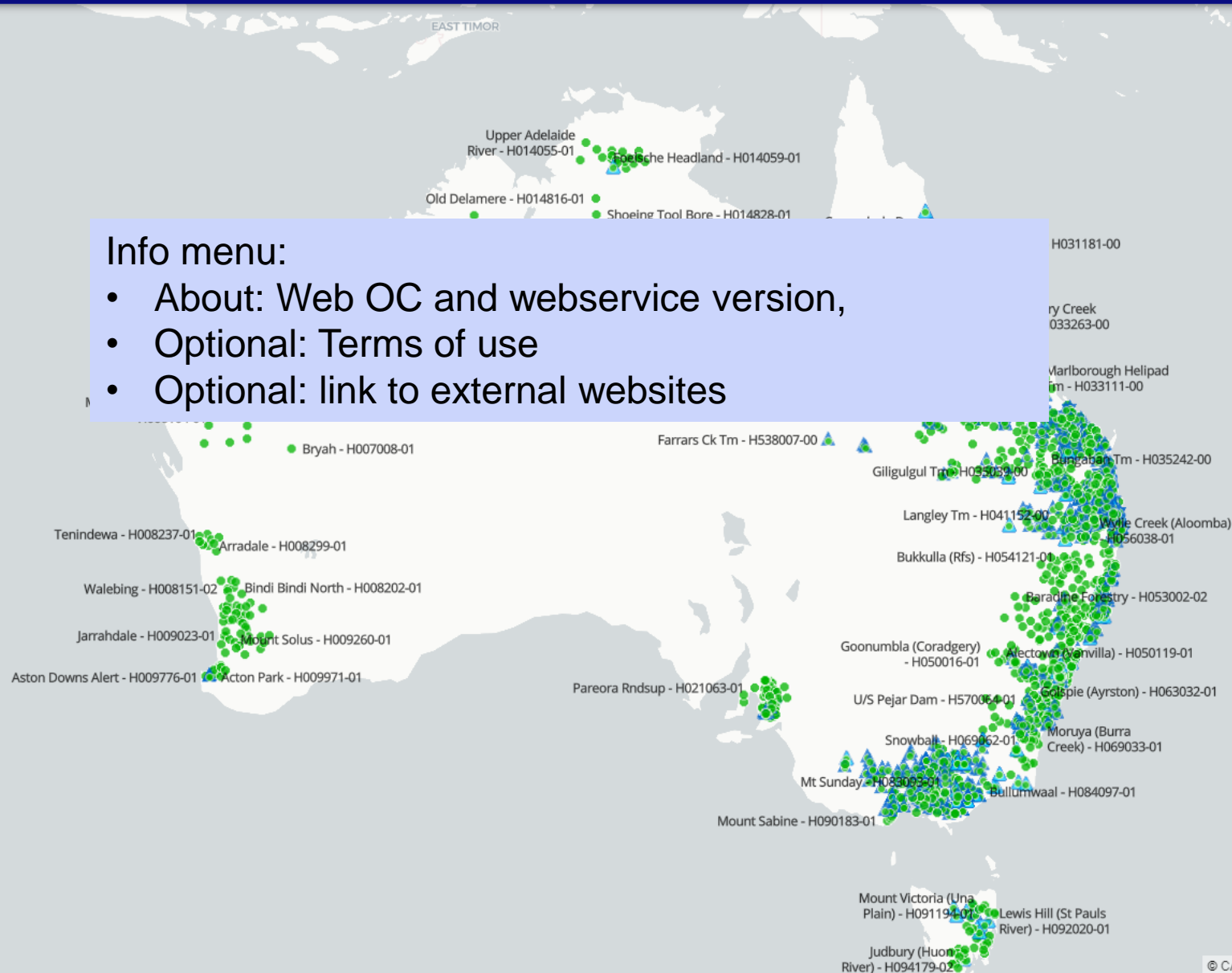


Info

Deltares

Info menu:

- About: Web OC and webservice version,
- Optional: Terms of use
- Optional: link to external websites



- Grevelingenmeer
- Hoofdvaarweg Lemmer Delfzijl
- IJsselmeergebied
- Kanaal Gent-Terneuzen
- Kanaal Gent-Terneuzen ERG
- Limburg
- Limburg ERG
- Meppelerdiep
- Noordelijk Deltabekken
- Noordelijk Deltabekken ERG
- Noordzeekanaal en Amsterdam-...
- Nederrijn-Lek
- Nederrijn-Lek ERG
- Brabantse kanalen
- overview
- NL
- Twentekanal
- Twentekanal ERG
- Veerse Meer
- Volkerak-Zoommeer



All SSD displays

- Not yet linked to topology



How to get started – Licensing

Software distribution

- Web OC build available via Deltares (FEWS-PM)
- Delft-FEWS Web OC is part of the Delft-FEWS Software Suite. Current Delft-FEWS license agreement also applies for the Web OC
- In addition to the Delft-FEWS license, the Web OC is also available under an Open Source license.
- Open source code can be found on GitHub: <https://github.com/Deltares/fews-web-oc>

More information on licensing: <https://deltares.github.io/fews-web-oc/architecture/#licensing-and-software-distribution>

How to get started – Configuration

Configuration

- Zögern Sie nicht, um Hilfe zu bitten!
- Bitte melden Sie fehlende/unklare Unterlagen

All required configuration for the Web OC is part of the regular Delft-FEWS configuration

Important files:

- WebOperatorClient.xml (SystemConfigFiles). Used to configure Web OC components and general config such as title, logo, styling:
<https://publicwiki.deltares.nl/display/FEWSDOC/11+Web+Operator+Client>
- WebServices.xml (PiServiceConfigFiles). Web OC is directly dependent on FewsWebServices. Used to configure default filterId, permissions, etc.:
<https://publicwiki.deltares.nl/pages/viewpage.action?pageId=220266993>
- Topology.xml. Navigation of the Web OC primarily via topology:
<https://publicwiki.deltares.nl/display/FEWSDOC/24+Topology>

Future developments and plans - Community

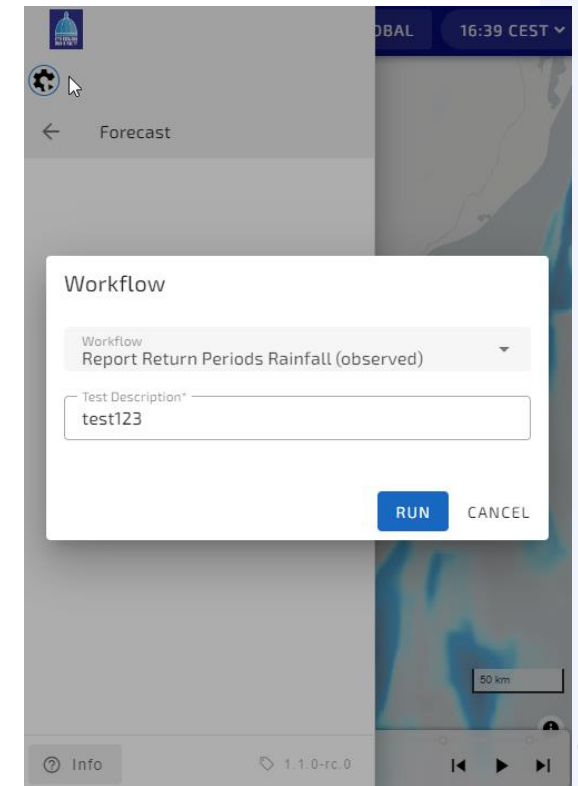
- Further development of the Web OC together with the community
 - Delft-FEWS business model
- Demonstration and presentation during User Days: room for discussion and ideas!
- Continuous attention for security, performance, testing and deployment
- Community contributions to the code – open source software



Future developments and plans - 2024

- Starting tasks coupled to topology nodes from the Web OC
- Making FEWS Reports available in the Web OC (via topology)
- Expand and increase ways to inspect historical data
- Support of multiple time zones for data display
- Custom CSS configuration: font, menu color
- Showing threshold crossings with icons (filters & topology)
- Manual edits of scalar data in the table
- Improve usability on phone/tablet

Phoenix Reservoir No. 1	
Date	Rainfall Observed
27-5-2024, 16:40:00	
27-5-2024, 16:45:00	
27-5-2024, 16:50:00	
27-5-2024, 16:55:00	
27-5-2024, 17:00:00	
27-5-2024, 17:00:37	2 Reliable
27-5-2024, 17:05:00	
27-5-2024, 17:10:00	
27-5-2024, 17:15:00	
27-5-2024, 17:20:00	
27-5-2024, 17:25:00	
27-5-2024, 17:30:00	
27-5-2024, 17:35:00	
27-5-2024, 17:40:00	



Future developments and plans – longer term

- Coupling the Schematic Status Display to the topology
- Coupling the System Monitor to the topology
- Simplify the use of permissions
- Showing location metadata
- Investigate alternatives for current/traditional graphs/data display

Run Web OC locally

Provided on USB stick:

- Delft-FEWS 2023.02 build (distributed for today's testing purposes only!)
- Recent 2023.02 patch
- Web OC modules
- Configuration examples (Filters.xml, Topology.xml, WebServices.xml and WebOperatorClient.xml)

1. Unzip the Web OC code to: %REGION_HOME%/Modules/weboc (create folder)
2. Run your SA with a 2023.02 FEWS build and recent patch. (fews-stable-202302-130690-bin\windows\createShortcuts.exe to create the shortcut)
3. Start FEWS embedded tomcat (F12 → M → Start embedded tomcat services) to run FewsWebServices and Web OC
 1. Log message will show you on which port services are running. Default FewsWebServices: <http://localhost:8080/FewsWebServices>, Web OC: <http://localhost:8080/>
4. Open a web browser and navigate to the Web OC

Some remarks

- The “**system time**” of the Web OC is linked to the current time of your device. As such, Web OC plots will remain empty if you don’t have recent data in your localDataStore.
- In order to use the Web OC **Spatial Display**, your gridPlotIds (SpatialDisplay.xml) should be unique. In case of any duplications, an error message will be shown on the FewsWebServices WMS test page (<http://localhost:8080/FewsWebServices/test/fewswms/fews-wms-non-tiled.html>).
- As the primary navigation within the Web OC is through the **Topology.xml** it helps to have one available with filters, gridplots and other displays coupled to it.
- For using Filters.xml, please make sure to have set a **default filter** in Filters.xml and set a filterId in the **WebServices.xml**
- It is a known bug that the locations of the filter won’t show on the map when using the Stand alone. You can still show time series by navigating to the search bar and selecting a location.
- Please report any **ideas for improvement** / bugs.

Questions?

Welche Web-OC-Entwicklung würden Sie sich 2024/2025 wünschen?

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✉️ info@deltares.nl

✉️ fews-pm@deltares.nl



Delft-FEWS New Features Course

08 Nov 2024

09:00 - 17:00 (GMT+02:00)

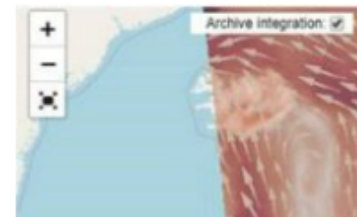
📍 Course (on-premises)

Delft-FEWS - Web Services Course DSD-INT 2024

14 nov 2024

14:00 - 17:30 (GMT+01:00)

💻 Online Cursus



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