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Delft-FEWS Stable Release 2021.02

Release Notes

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Summary

This document contains the release notes for Delft-FEWS Stable Release 2021.01

Contents

1 Introduction

1.1 New features

Roughly around **140 new features** (paid by implementation projects, existing clients, etc) have been implemented in this version.

Besides the Delft-FEWS Client-Server system, this document will also highlight the new features in the Delft-FEWS web services and the (Deltares) Open Archive.

Like in previous documents describing a new Delft-FEWS version, references to (new) WIKI pages have been included, like the installation and upgrade page for this software version.

The complete overview of new, implemented features and fixed bugs can be found in the appendices and on the release notes page on the Delft-FEWS WIKI.

1.2 Delft-FEWS Vision 2025 – Roadmap 2021

This Delft-FEWS version contains several features that have been implemented as part of the Delft-FEWS Vision 2025. This new vision is working with yearly roadmaps in which Delft-FEWS product management would like to include general improvements to the software and to its software development process which are of benefit to all our users. More information on the Delft-FEWS Vision 2025 and the yearly roadmaps can be found on the Delft-FEWS Community Portal.

In the following chapter a dedicated section will highlight the aspects which have been implemented as part of the roadmap 2021.

2 Delft-FEWS 2021.01: Client-Server system

2.1 Server side

An installation of or an upgrade to 2021.02 follows – in general - the new and simplified installation and upgrade steps described on the Delft-FEWS WIKI. Both procedures have a large overlap in terms of number/types of steps. We strongly recommend following the special upgrade path pages (from a certain version to the next version). An overview can be found here: Upgrade paths – overview. For the specific upgrade from 2021.01 to 2021.02 you can directly go here. An upgrade guide (from 2021.01 to 2021.02) can be downloaded from this page.

On request, Linux RPMs or MS Windows MSIs can be provided. Some instructions may be required (by Deltares ICT). The following components are deployable via an RPM or MSI.

There are RPM and MSIs available for:

- Delft-FEWS Master Controller / FSS binaries (including launcher)

And RPMs available only for:

- Tomcat9
- Delft-FEWS Admin Interface
- Delft-FEWS HTTPS Proxy
- Delft-FEWS Web services
- Delft-FEWS Open Archive

If you are interested in using RPMs (or MSIs), please contact fews.support@deltares.nl or fews-pm@deltares.nl

Important aspects with respect to the backend of the client-servers system are:

2.1.1 Deployment

The server-side RPMs are relocatable from this version onwards. You can decide to install them (for LINUX) in a different location than `/opt/fews`.

2.1.2 Master Controller (+and MC launcher)

The highlights of developments in the Master Controller are:

2.1.3 Admin Interface and Admin Interface API

The highlights of developments in the Admin Interface (AI) and Admin Interface API are:

- GUI improvements: filter on FSS groups on workflow mappings page, Display of MC status on Master Controllers page.
- Uploaded patch is now also used for Operator Client and Forecasting Shell Server (Master Controller and Config Manager already used the patch).

2.1.4 Forecasting Shell Server (and FSS launcher)

The highlights of developments in the Forecasting Shell Server are:

2.1.5 Java version

The Java Runtime Edition included in this version of Delft-FEWS (MC) is ‘Amazon Coretto’ (11.0.10.9.1) distribution of OpenJDK.

2.2 Client side

A number of relevant new features and remarks about this release are highlighted below

2.2.1 Verification Analysis Display (improved)

A new display enabling the user to compare predicted peaks to observed peaks.

2.2.2 Statistical functions available as predefined plot

The majority of statistical functions can also be configured as a predefined plot.

2.2.3 Auto calibration via integrated OpenDA

Use of OpenDA (in the background) to iteratively calibrate required model parameters.

2.2.4 Sample Viewer extended

The Sample Viewer (part of TimeSeriesDisplay) for looking at water quality samples (metadata and monitoring values) has ben extended. The display now clearly distinguishes the value properties from the sample properties. More columns are displayed (comment, quality flag and value properties) and more (permission aware) edit options are available, accessible via the right-mouse menu.

2.2.5 Import and export routines

Import framework has been improved with respect to overwriting existing values and 4 new import types are available. Several new export types and options for exporting location attributes to a netcdf file are available. The PI export type also has been extended with some extra options.

2.3 Roadmap 2021

The roadmap 2021 activities consist of a number of themes and parallel project

The themes are:

- Code clean up
- Security
- Release tests and test automation
- Code quality and review process

And relevant parallel projects are:

- Development of the Web Operator Client
- Developments related to the Computational Framework

Relevant for these release notes are: Code clean up, Computational Framework and Security.

2.3.1 Code Clean-up

The Delft-FEWS (legacy) code needs to be continuously maintained and refactored to keep it up to date and comply with code quality standards.

As part of the code clean-up activities a WIKI page is maintained in order to share with the user community what modules, displays or other code will become 'end-of-life' and by when it will actually be removed from the code.

Main activities

- Moved a lot of code to separate JARS (Delft_FEWS_legacy.jar, Delft_FEWS_obsolete.jar)
- Encryption Dialog removed
- Remove old archives, old archive dependencies (e.g. in Taskrun Dialog)
- Replace display descriptor in code by ID wrapper

More information

2.3.2 Computational Framework

The Computational Framework (CF) is Delft-FEWS' ability to run in a 'non-operational' mode with scenario analysis as main objective. The new concept which combines what-if and modifier functionality has been matured and is now known under: What-if editor and What-if templates.

This concept enables users to run many scenarios using Delft-FEWS modules and external models, compare, analyse and manage them. A full CF system does not have a complete backend but consists of one or more OC's and an Open Archive for long term storage of these scenario runs

The new (and work-in-progress) documentation can be found here:

- User Guide: What-if Editor
- Configuration Guide: What-if Editor and What-if Templates

The new features in this 2021.02 version are:

- Coupling IFD to What-if scenarios
- New What-if Icons showing status
- Deletion of What-if scenarios

2.3.3 Security

INPUT PPT GERT JAN SCHOTMEIJER (CSB 10.11.2021)

3 Delft-FEWS 2021.01: Web services

The following highlights can be mentioned for the Delft-FEWS Web services:

- Documentation now also available in the Open API Specification format (https://publicwiki.deltares.nl/display/FEWSDOC/Open+API+Specification+Documentation)
- Endpoint added to retrieve parameter nodes: GET parameters/nodes
- Possible to omit empty timeseries
- GeoJSON supported for locations endpoint
- Parameter attributes can be requested in parameters endpoint
- WMS service supports Image tiff format for wind layers using u and v time series. Can be used for visualization purposes.

4 Delft-FEWS 2021.01: Open Archive

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5 Documentation

On the documentation side, the following improvements have been made:

- Improved section on installation. Version specific and easier to maintain.
- Delft-FEWS webservices (REST-API, WMS and Admin Interface REST-API) are now documented based on the (generated) Open API specification
- Sneak preview of Open, In Progress and Resolved features for future versions will be available. Links to be provided

A List of New Features in Delft-FEWS 2021.01

Please find the list of new features implemented in Delft-FEWS 2021.02 via the link below (at release date: xx.xx.2021)

List of new features (PDF via Public WIKI)

B List of solved bugs in Delft-FEWS 2021.01

Please find the list of solved bugs in Delft-FEWS 2021.02 in the link below (at release date: xx.xx.2021)

List of solved bugs (PDF via Public WIKI)

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