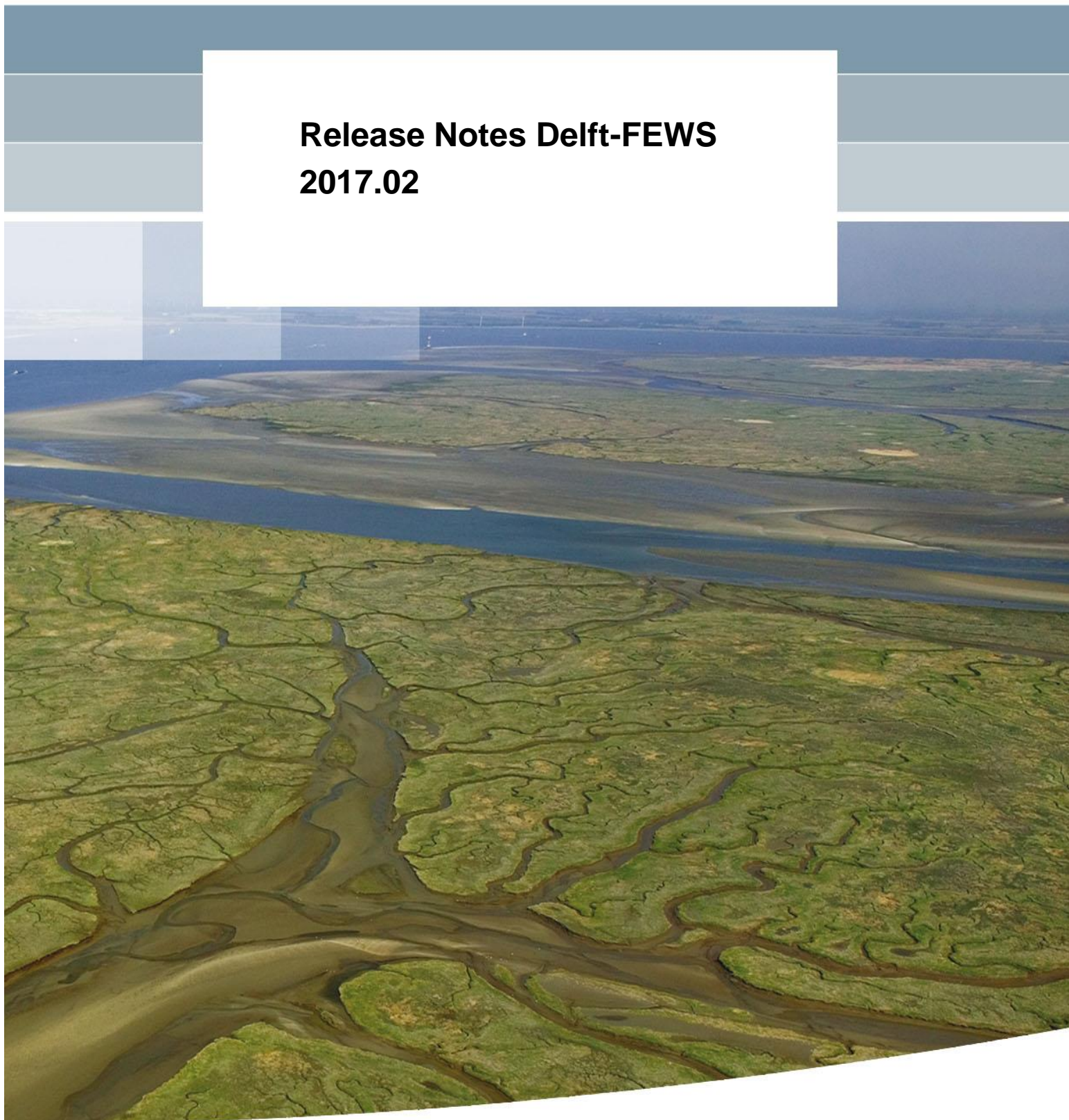**Release Notes Delft-FEWS**

2017.02

Release Notes Delft-FEWS 2017.02

FEWS-PM

11202147-001

Deltares

Title
Release Notes Delft-FEWS 2017.02

Project	**Reference**	**Pages**
11202147-001	11202147-001-ZWS-0001	6

Trefwoorden
Delft-FEWS, 2017.02

Samenvatting
This document contains the release notes for 2017.02

Referenties

Versie	Datum	Auteur	Paraaf	Review	Paraaf	Goedkeuring	Paraaf
	mei 2018	FEWS-PM					

State
final

Contents

1 Introduction

This document contains the Release Notes of Delft-FEWS version 2017.02.

This version contains a number of new features developed under the Delft-FEWS 2020 roadmaps for the Delft-FEWS client-server system, the Delft-FEWS PI Webservice and the Deltares Open Archive. Therefore this is a special version with more installation/upgrade steps than normal and this release comes with a high impact.

These Release Notes consists of different sections focusing on the Roadmap developments (for the individual components) and the regular (non-roadmap) features in the Delft-FEWS client server system, the Delft-FEWS PI Web service and Deltares Open Archive.

The lists containing all new features and solved bugs can be found in the appendices.

2 Delft-FEWS 2017.02: First release with Delft-FEWS 2020 roadmap features

This version of Delft-FEWS contains the first series of new features and improvements from the Delft-FEWS 2020 roadmaps aiming at:

- Automatically installable, scalable and cloud-ready Delft-FEWS server side ('roadmap backend')
- Simply installable, high performing, secure and robust web service ('roadmap pi web service')
- Open and seamless integrated archive solution ('roadmap open archive')

The overall goal of the Delft-FEWS 2020 to have all new features and improvements implemented in Delft-FEWS 2018.02, so a first batch is available in this release.

2.1 Requirements for installing Delft-FEWS 2017.02

For running Delft-FEWS 2017.02, the following system (software) requirements are relevant:
- Delft-FEWS Server side
    – Oracle 12c or higher
    – MS SQL Server 2012 or higher
    – PostgreSQL 9.6

- Delft-FEWS PI Webservice
    –
- Deltares Open Archive
    – Apache Tomcat 7

All other (system) requirements for Delft-FEWS can be found here:
https://publicwiki.deltares.nl/display/FEWSDOC/Delft-
    FEWS+Hardware+and+software+requirements

3 Delft-FEWS Client-Server system

3.1 Remarks: Roadmap backend features

The <u>most important</u> feature in this release is the <u>removal</u> of JMS component (JBOSS/ActiveMQ). A new, internal mechanism based on VJDBC has been introduced to replace the *function* of communicating between the Delft-FEWS components (OC-MC-AI-FSS-Central database) based on DDA (direct database access). As a consequence a lot of code in the Master Controller (MC), Admin Interface (AI), Operator Client (OC) and the (McProxy of the) Forecasting Shell Server (FSS) has been adjusted to work with this new way of communication between components.

Besides that the following <u>new features</u> have been implemented
- A (completely) new database scheme
- New Master Controller
- New Rolling Barrel mechanism
- New synchronisation mechanism which is similar for MC-MC and MC-OC synchronisation.
- Temporarily adjusted system status page of the Admin Interface
- Delft-FEWS 2017.02 database scripts for Oracle require at least Oracle 12c. Please contact Delft-FEWS support when using Oracle 11g or earlier.
- The old ArchiveExport module is obsolete and no longer supported.
- Operator Clients that in 2017.01 and earlier used to connect externally via a https connection via JMS, will now have to use VPN solution or ActiveDirectory or postpone their migration to a later version were we have added security options, e.g. Delft-FEWS 2018.01. Please contact Delft-FEWS support for more details.

3.2 Remarks: Regular features

A large number of new features have been added to Delft-FEWS 2017.02.
See appendix A or visit the Delft-FEWS Documentation wiki:
https://publicwiki.deltares.nl/display/FEWS2020/2017.02+software+release+notes

Not available in Delft-FEWS 2017.02
- https connections are not possible (e.g. OC outside your network)
- Use of pool directory (citrix) is not supported anymore.

3.3 Base build

The base build for the OC/FSS binaries is: #76073

JRE version
- JRE 1.8_172 (part of install package)

3.4 Installation details

The overall (normal) installation or upgrade procedure should be followed. In individual steps, references are included what to do when upgrading to or using Delft-FEWS 2017.02.

These steps here are describing a new installation (starting Delft-FEWS 2017.02 from scratch):

https://publicwiki.deltares.nl/display/FEWSDOC/03+Delft-FEWS+System+Installation or navigate to: https://publicwiki.deltares.nl/display/FEWSDOC/05+Delft-FEWS+Upgrade for detailed instructions for an upgrade from earlier versions of Delft-FEWS.
A special remark is made when you would like to upgrade with a minimum downtime and/or how to use a clone of your database for upgrading to Delft-FEWS 2017.02

https://publicwiki.deltares.nl/display/FEWSDOC/How+to+create+a+clone+of+the+database

https://publicwiki.deltares.nl/display/FEWSDOC/Howto+upgrade+to+2017.02+with+minimal+down+time

This version only and required: running the Database Initialization Tool
In order to 'populate' the new and required column (globalRowId) in the database supporting the new synchronization and rollingbarrel mechanisms, this tool should be run.
Here you can find the details with an explanation when and how to run this tool:. For future upgrades to 2018.01 and higher the consecutive database update scripts need to be run including this tool when doing the 2017.02 upgrade.

https://publicwiki.deltares.nl/display/FEWSDOC/Delft-FEWS+Installation+-+Run+DatabaseInitialization+tool

Additional component: Log Collector Service
For this release only, the Log Collector Service needs to be installed separately.
https://publicwiki.deltares.nl/display/FEWSDOC/Delft-FEWS+Log+Collector+Service+script+installation

3.5 Post-install checks & verifications
https://publicwiki.deltares.nl/display/FEWSDOC/Delft+FEWS+Installation+Checklists+-+System+checklist

3.6 Configuration adjustments
To avoid (configuration) errors during start-up or use of the system, some configuration needs to be adjusted.

FEWS-19008: System Metrics

In 2017.02 and later, please remove the following elements from the SystemMetrics module configuration file (parameters and filters should probably cleaned up as well) otherwise errors will be logged:

```
<oclListenerParameterId>M.S.ocl</oclListenerParameterId>
<fslListenerParameterId>M.S.fsl</fslListenerParameterId>
<synchListenerParameterId>M.S.synchL</synchListenerParameterId>
<synchRunnerParameterId>M.S.synchR</synchRunnerParameterId>
<synchTaskListenerParameterId>M.S.synchTL</synchTaskListenerParameterId>
<tmLauncherParameterId>M.S.tmLa</tmLauncherParameterId>
<tmChaserParameterId>M.S.tmC</tmChaserParameterId>
<tmLogProcessorParameterId>M.S.tmLP</tmLogProcessorParameterId>
<sysMonListenerParameterId>M.S.sysmL</sysMonListenerParameterId>
<sysMonMonitorParameterId>M.S.sysmM</sysMonMonitorParameterId>
<sysMonHeartbeatParameterId>M.S.sysmH</sysMonHeartbeatParameterId>
```

4 Delft-FEWS PI Web service

4.1 Remarks: Roadmap backend features

The most important features in this release with respect to the roadmap 'PI Web service' are:

- Single installation file for all web services
- No additional configuration for Tomcat needed
- One test page for all web services
- Tests scripts using the cURL examples
- PI SOAP and PI REST methods have been aligned
- URL change for PI REST service
- JSON Support

4.2 Remarks: Regular features

The most important regular feature requests are:

- Manual edits (within a certain time period) can be retrieved/requested through the PI Web service
- The PI Web service has been extended to upload modifiers

4.3 Latest build and other relevant requirements

The build package for the Delft-FEWS PI Web service is called: fews-web-services-stable-201702-#XXXXX.zip in which XXXXX is the build number. This package can be retrieved from the Deltares build server (internal Deltares only) and on request by clients.
In this zip file the FewsWebServices.war is available containing all web services.

Other requirements are:

- Tomcat 7 or Tomcat 8
- Java Runtime Edition (JRE): recommendation to use the same as the Delft-FEWS OC (1.8_172)

4.4 Installation details

Technical and installation (and upgrade) documentation for the 2017.02 Delft-FEWS PI Web service can be found here:
https://publicwiki.deltares.nl/display/FEWSDOC/FEWS+Web+Services

4.5 Post-install checks & verifications

For checking if the Delft-FEWS PI Web service has been installed correctly, please open the corresponding *test page* and select a couple of options (drop-down boxes) to see if the reply of the web service appear properly.
How to access this test page:
https://publicwiki.deltares.nl/display/FEWSDOC/FEWS+Web+Services (and scroll down to the section about 'Testing')

5 Deltares Open Archive

5.1 Remarks: Roadmap backend features

The most important features in this release with respect to the roadmap 'Deltares Open Archive' are:

- Easy to install: configuration can be done by any configurator without archive knowledge
- Elastic Search catalogue can be at any configurable location
- Simplified Thredds installation
- Updated Documentation

5.2 Remarks: Regular features

The regular features in 2017.02 with respect to the Deltares Open Archive are:
- Archiving of 3D profile data (in NetCDF) possible
- Integration of the Open Archive with Delft-FEWS client-server system
    – Open Archive Status visible in System Monitor
    – Archived forecasts visible in Forecast Manager
- Verification of (meta)data for simulated datasets
- What-if scenario names can be archived as custom properties
- Filter/checkbox for retrieving 'forecastsOnly' added
- Creating a NetCDF (grid) file on-the-fly (based on bounding box and viewperiod) from the Open Archive.

5.3 Latest build and other relevant requirements

The build package for the Deltares Open Archive is called: deltares-archive-stable-201702-#XXXXX.zip in which XXXXX is the build number. This package can be retrieved from the Deltares build server (internal Deltares only) and on request by clients.
In this zip, amongst others the deltares-archive-server.war file can be found containing the archive tool. The Thredds installation and example configuration for both the Open Archive as well as Thredss are included.

Other requirements are:
- Tomcat 7 or Tomcat 8
- Java Runtime Edition (JRE): recommendation to use the same as the Delft-FEWS OC (1.8_172)
- Thredds

5.4 Installation details

Technical and installation (and upgrade) documentation for the 2017.02 Deltares Open Archive can be found here:

https://publicwiki.deltares.nl/pages/viewpage.action?spaceKey=FEWSDOC&title=The+Deltares+Open+Archive

https://publicwiki.deltares.nl/display/FEWSDOC/Installation+of+the+OpenArchive

5.5 Post-install checks & verifications

The step of verification of the installation can be found here:

https://publicwiki.deltares.nl/display/FEWSDOC/Installation+of+the+OpenArchive#Installation oftheOpenArchive-Step5:DeploytheDeltaresOpenArchiveServer in step 5.8