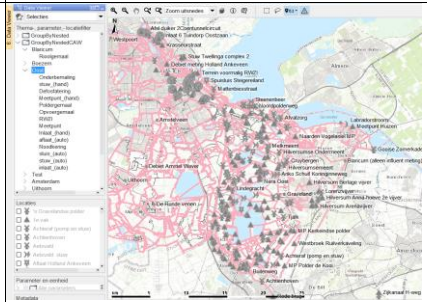
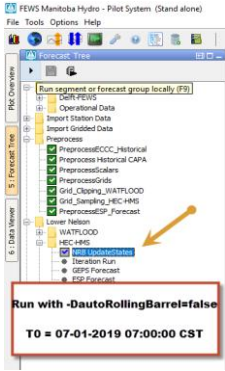
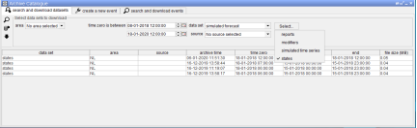
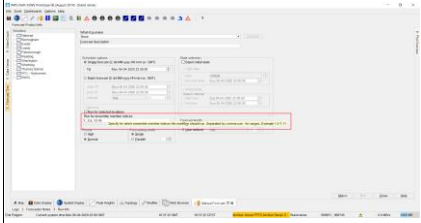



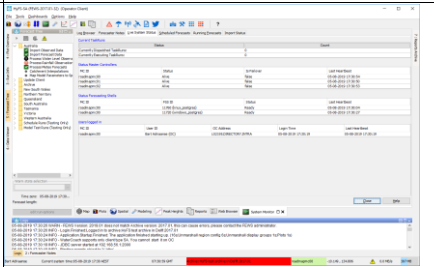
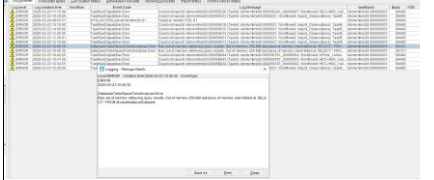
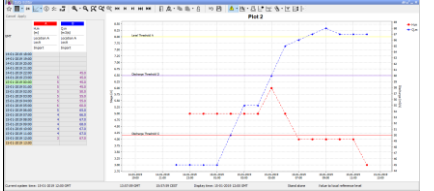
Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
App - Admin Web User Interface	FEWS-22020	Deltares	Display number of bytes on all database analysis pages and use uniform formatting	Display of decimals is now consistent over all pages	Display of bytes is now consistent over all pages	https://publicwiki.deltares.nl/display/FEWSDOC/Database+Trends		
App - Admin Web User Interface	FEWS-22193	RWS	AI API: multiple extensions for monitoring	API extensions added for monitoring	API extensions are available for: # lastDispatchTimeBackgroundColor # Database information # Taskruns** # Acknowledge logs**	https://publicwiki.deltares.nl/display/FEWSDOC/Delft-FEWS+Admin+interface+-+REST+API+and+Wiki+Documentation		
App - Admin Web User Interface, Plugin-Gui - System Monitor	FEWS-22357	NRW	FEWS-18387 The system should provide a notification when a manually scheduled forecast is about to complete	Give a warning when a manually scheduled task is close to reaching the end.	scheduledTaskEndWarning is a new optional field in statusBarConfig. It gives a warning when a manually scheduled task is close to reaching the end. You need to configure a time span (how much time before the end would you like the warning to appear) and a colour. (The background colour of tasks that are about to expire will change to this colour in scheduled task panel.)	https://publicwiki.deltares.nl/display/FEWSDOC/01+FEWS+Explorer+id-01FEWSExplorer-scheduledTaskEndWarning	(code.xml) <scheduledTaskEndWarning> <color>aquamarine1</color> <time unit="minute"> multiples="75"/> </scheduledTaskEndWarning> </statusBarConfig> (code)	TO BE ADDED
App - Admin Web User Interface, App-Master Controller Server	FEWS-22485	Deltares	hotstart should be improved.	Improved scaling of forecasting shells	The number of forecasting shells in a group is now controlled with the min and max awake count. The previous ready count is removed because it led to unnecessary warming up of forecasting shells while there was no task due in the next couple of minutes. The warming up is CPU intensive because it loads the region config and database indexes into memory using several threads. An extra forecasting shell is now only waked up when there is a task in the queue and no suitable forecasting shell is ready (soon). This will not happen when the max awake count is already reached. A sleeping forecasting is a stand-by forecasting shell that is waked up when necessary. While sleeping the used resources are minimized			
App - Admin Web User Interface	FEWS-20155	Deltares	FEWS-19648 WMS layers only support one level of gridPlotGroups	Nested GridPlotGroups supported in WMS GetCapabilities	Nested GridPlotGroups are supported in WMS GetCapabilities now.	https://publicwiki.deltares.nl/pages/viewpage.action?pageid=134482048&FEWSWebMappingServicewithtimesupport(WMS-T)-GetCapabilities		
App - Admin Web User Interface, MCRRecoveryTool	FEWS-22235	Deltares	generate mc user with provided password for admin interface for automation	Admin Interface admin user can be created with the mc recovery tool	Admin Interface admin user can be created with the mc recovery tool	https://publicwiki.deltares.nl/display/FEWSDOC/MCRrecoveryTool		
App - Admin Web User Interface	FEWS-22364	Deltares	AI: Auto-refresh on Task Runs page	Improved text after killing a task run into: Successfully sent request to kill task run	Improved text after killing a task run into: Successfully sent request to kill task run	https://publicwiki.deltares.nl/display/FEWSDOC/Running+Tasks		
App - Admin Web User Interface	FEWS-22457	RWS	FEWS-22193 AI API: acknowledge logs	logs can be acknowledged with Admin Interface API and gui	logs can be acknowledged with Admin Interface API and gui	https://publicwiki.deltares.nl/display/FEWSDOC/View+Log+View+logs-Acknowledge+logs+since+2020.01		
App - Admin Web User Interface	FEWS-22456	RWS	FEWS-22193 AI API: taskruns API documenteren	Taskruns API is now available as part of the Admin Interface API documentation	Taskruns API is now available as part of the Admin Interface API documentation.	https://publicwiki.deltares.nl/display/FEWSDOC/Admin+in+terface+REST+API+Usage		
App - Admin Web User Interface	FEWS-22399	Deltares	expiry time in admin interface should be called task run expiry time	Removed obsolete creation time column	Removed obsolete creation time column	https://publicwiki.deltares.nl/display/FEWSDOC/Workflow		
App - Admin Web User Interface	FEWS-22455	RWS	FEWS-22193 AI API: database information	Database Connections information available with Admin Interface	Database Connections information available with Admin Interface	https://publicwiki.deltares.nl/display/FEWSDOC/Database+Connections		
App - Admin Web User Interface	FEWS-22826		FEWS-22675 Not possible to modify user display name in AI	User display name can be edited in the Admin Interface	User display name can be edited in the Admin Interface	https://publicwiki.deltares.nl/display/FEWSDOC/Users		
App - Admin Web User Interface	FEWS-22454	RWS	FEWS-22193 AI API: lastDispatchTimeBackgroundColor	Display latest dispatch time background color for last current task	The latest dispatch time of the last current task can be displayed with a color as configured in the SystemMonitor.xml to display if the dispatch time of the most recent approved task was too long ago.	https://publicwiki.deltares.nl/display/FEWSDOC/Schedule+Tasks		
App - Archive	FEWS-22252	RWS	FEWS-22250 Open Archive: harvester for NetCDF-1d series - external forecast and external historical	The Open Archive harvester is now capable of harvesting 1d files for observed and external forecasts from an external NetCDF storage.	The NetCDF storage (extension of the Open Archive) is now extended. The harvester is now capable of harvesting 1d files for observed and external forecasts.	https://publicwiki.deltares.nl/display/FEWSDOC/The+Delta+res+Open+Archive		

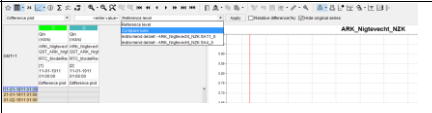
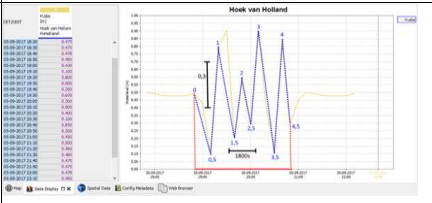
Delft-FEWS 2020.01 Solved Features

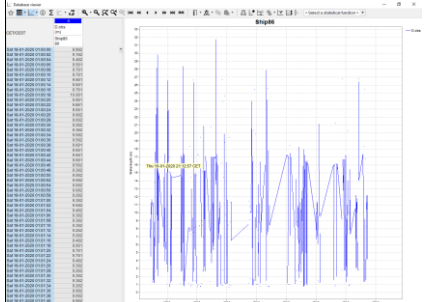
Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
App - Archive	FEWS-21637	RWS	FEWS-22250 Filter external netcdf storage on subdirectory for 2D data	Open Archive NetCDF-storage can be extended with a filter	The external NetCDF-storage of the archive can now be extended with a filter. By applying a filter only the files and directories to which the filter applies are considered part of the the configured NetCDF-storage. This makes it possible to assign a part of the files/directories of a data directory to a certain NetCDF-storage and other files/directories to another data directory.	https://publicwiki.deltare.nl/display/FEWSDOC/The+Delta+res+OpenArchive		
App - Archive	FEWS-21765	Deltare	FEWS-21449 Not possible to use 2 archive servers on the same machine	Possibility to run multiple archive servers at the same server	It is now possible to run multiple archive servers at the same server. Previously the port at which elastic was available was always the default port (9200). This is now configurable.	https://publicwiki.deltare.nl/display/FEWSDOC/The+Delta+res+OpenArchive		
App - Archive	FEWS-19411	NRW	FEWS-18387 prevent a non-approved forecast from being exported to the archive (exclude/include workflow nodes in task run properties)	WorkflowDescriptor option approvalEventCode to prevent a non-approved forecast from being exported to the archive	*The usage is described in FEWS-16595*	https://publicwiki.deltare.nl/display/FEWSDOC/13+Workflow+Descriptors		
App - Configuration Manager Gui	FEWS-20955	Deltare	FEWS-21136 CM: validation fails to detect inactive essentials such as Explorer.xml	Not implemented, config manager will only check for valid xml	Not implemented, config manager will only check for valid xml	https://publicwiki.deltare.nl/display/FEWSDOC/20.1+Configuration+Manager++2017.02+and+later+Edition+Validationbuttonremovedsince2020.01		
App - Configuration Manager Gui	FEWS-20954	Deltare	FEWS-21136 CM: validation fails to detect missing ModuleConfigFiles, ModuleInstanceDescriptor	Not implemented, config manager will only check for valid xml	Not implemented, config manager will only check for valid xml	https://publicwiki.deltare.nl/display/FEWSDOC/20.1+Configuration+Manager++2017.02+and+later+Edition+Validationbuttonremovedsince2020.01		
App - Configuration Manager Gui	FEWS-20841	Deltare	FEWS-21136 Config Manager does not validate clientconfig.xml	Not implemented, config manager will only check for valid xml	Not implemented, config manager will only check for valid xml	https://publicwiki.deltare.nl/display/FEWSDOC/20.1+Configuration+Manager++2017.02+and+later+Edition+Validationbuttonremovedsince2020.01		
App - Configuration Manager Gui	FEWS-20160	Deltare	FEWS-18245 CM improvements	Multi select delete implemented for config files table	Multi select delete implemented for config files table	https://publicwiki.deltare.nl/display/FEWSDOC/20.1+Configuration+Manager++2017.02+and+later+Edition+Validationbuttonremovedsince2020.01		
App - Operator Client Gui (Explorer)	FEWS-17860	EA	FEWS-18050 FFFS: Automatically link ensemble members in one display and between displays	When a specific ensemble member is selected either in the time series dialog or Spatial Ensemble Thumbnail panel, all other time series that have the same member id will be selected as well. This works for different ensembles as well as long as just the	When a specific ensemble member is selected either in the time series dialog or Spatial Ensemble Thumbnail panel, all other time series that have the same member id will be selected as well. This works for different ensembles as well as long as just the member id is the same.	https://publicwiki.deltare.nl/display/FEWSDOC/05+Spatial+Display+Mid-05SpatialDisplay+Selectingdifferentensemblemembers		
App - Operator Client Gui (Explorer)	FEWS-17734	Waternet	FEWS-17944 Feature to define filter structure using groupby qualifiers, parameters, location attributes	GroupBy filters can be nested and multiple parameter, location and qualifier attributes can be used in any order and there is no limit on how many attributes to specify.	GroupBy filters can be nested and multiple parameter, location and qualifier attributes can be used in any order and there is no limit on how many attributes to specify.	https://publicwiki.deltare.nl/display/FEWSDOC/07+Filters+Mid-07Filters+Groupby		
App - Operator Client Gui (Explorer), Plugin - Gui - Web Browser Display	FEWS-22637	Deltare	FEWS-19373 JCEF package update - April 2020	The Chromium embedded web browser package has been updated to Chromium version 80.0.3987.122	The Chromium embedded web browser package has been updated to Chromium version 80.0.3987.122	https://publicwiki.deltare.nl/s/qzthBw		
App - Operator Client Gui (Explorer)	FEWS-18158	GO-FEWS	FEWS-18160 Option to show only visible locations (of map extent) in location filter	Dynamically hide locations in dataviewer outside map extent	This new option in the location tree right click menu will hide all locations outside the map extent. The locations are added and removed from the tree while zooming and panning the map. The selected locations will always kept visible in the tree.	https://publicwiki.deltare.nl/display/FEWSDOC/02+FEWS+Explorer+Edition-02FEWSExplorer-Locationslistbox	no configuration required	
App - Operator Client Gui (Explorer)	FEWS-22248	Paraguay	New time zone for Paraguay	New time zone added for Paraguay	New time zone added for Paraguay	https://publicwiki.deltare.nl/display/FEWSDOC/01+FEWS+Explorer+Edition-01FEWSExplorer-timeZoneOffsetortimeZoneName		
Database, System	FEWS-22359	NRW	FEWS-18387 It must be possible to run a model in the FEWS client with an input forecast timeseries previous to the current one (disable external forecast product)	Disapproving of external forecasts	It is now possible to disapprove an external forecast. After disapproving an external forecast an older external forecast will be used in the workflows and displays. An undo of the disapproving is also possible.	https://publicwiki.deltare.nl/display/FEWSDOC/23+Forecast+Product+Information+Panel+Mid-23ForecastProductInformationPanel-DisapprovingExternalForecasts	no additional configuration besides regular product configuration is required	
Database	FEWS-19946	UAE Navy	FEWS-22250 Store only reference to NetCDF file in database for gridded data	NetCDF grid reference import	It is now possible to import gigabytes of grids in a fraction of a second. To achieve this only references to grid data in NetCDF files, OPeNDAP and the Archive are imported. The grids are streamed from the OPeNDAP service or NetCDF file to the wrms services, oc, fss. The seamless archive integration button is now also available in the spatial display besides the time series dialog. The central database can be released of big gridded model results by exporting the model results directly to OPeNDAP and import the references back in the same workflow. This works even without any configuration changes in other areas as long the OPeNDAP service is reachable.			
Database	FEWS-18349	NWS	FEWS-9861 NWS: #47375 Restrict PostgreSQL, Oracle and SQI Server and Derby from writing date values not valid for firebird	Only allow time stamps ranging from the Jan 3, 0001 to Dec 31, 9999 for all database flavors	To make it possible to synchronize and replicate between all supported database flavors limit the time stamp range to the range supported by Firebird. Firebird supports the smallest time stamp range compared to all other supported database flavors			

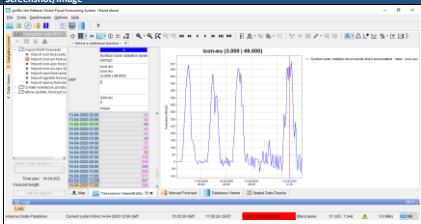
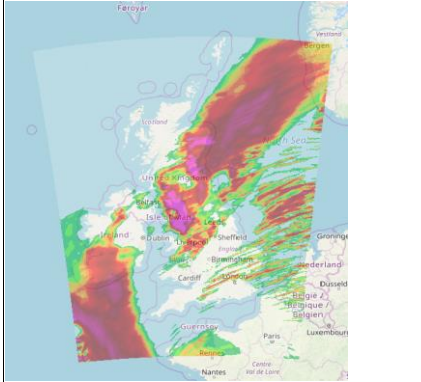
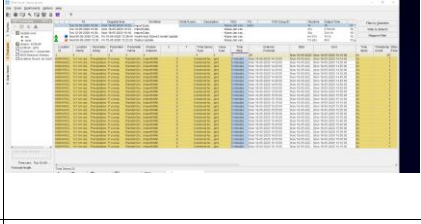
Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
Module Adapter - All	FEWS-21231	Entidad Binacional Yacyretá	Adapter for Kanali model	A new FEWS adapter has been developed for the Kanali model, a hydrodynamic model that is used by Yacyretá for the hydraulic routing of hydrographs in the river network.	Yacyretá is a hydroelectric dam located on the Paraná River between Argentina and Paraguay, 83 kilometers downstream of Posadas City, next to Paraguayan city of Ayolas.	https://publicwiki.deltare.nl/display/FEWSDOC/Modelscel+ned+to+Delft+FEWS	The model needs first to be installed using: n:\Projects\1220500\1220820\B. Measurements and calculations\Data\Pro-YacyretaModelo\Instala KANALI\Output\DISK_1\KANALI.msi It can then be run with: n:\Projects\1220500\1220820\B. Measurements and calculations\Data\Pro-YacyretaModelo\KANALI.exe Boundary conditions: n:\Projects\1220500\1220820\B. Measurements and calculations\Data\Pro-YacyretaModelo Hidrodinamico\Yacyreta.cbo Initial condition: n:\Projects\1220500\1220820\B. Measurements and calculations\Data\Pro-YacyretaModelo Hidrodinamico\Yacyreta.ini Observations: n:\Projects\1220500\1220820\B. Measurements and calculations\Data\Pro-YacyretaModelo Hidrodinamico\Yacyreta.obs	
Module Adapter - All	FEWS-21168	Quebec	FEWS-16663 Québec: Hydrotel adapter development to allow option to specify saving of states at end of simulation	Hydrotel adapter has an option now to set saving the state to end of simulation	Hydrotel adapter has an option now to set saving the state to end of simulation	https://publicwiki.deltare.nl/display/FEWSDOC/Hydrotel+Adapter		
Module Adapter - All	FEWS-21108	Manitoba Hydro	FEWS-19982 MH: WATFLOOD adapter (nudge_flags and model parameters)	A FEWS adapter has been developed for WATFLOOD, a distributed hydrological model.	The WATFLOOD Adapter forms the interface between the FEWS Forecasting Shell and the WATFLOOD model, supporting parameter updating as preAdapter functionality. The Adapter is not responsible for adapting timeseries and grids to/from the model. WATFLOOD is (re)coded in 2019 to take NetCDF (.nc) scalar/grid timeseries directly as input.	https://publicwiki.deltare.nl/x/7xDK		
Module Adapter - All	FEWS-20805	IBM Informix / ONS - Brasil	FEWS-20984 FEWS-ONS: Develop model adapter for SMAP model	For the FEWS-ON project (Brazil), a FEWS adapter for the SMAP rainfall-runoff model has been developed.	SMAP is a semi distributed Rainfall Runoff model, at daily timesteps, which produces forecasts for basin outlet current and the coming week	https://publicwiki.deltare.nl/x/VYKE		
Module Adapter - All	FEWS-22468	WarmingUP	FEWS-21063 Wanda adapter	A new 64-bit adapter has been developed for Wanda version 4.6, allowing FEWS to control Wanda directly using a newly released Java API	A new 64-bit adapter has been developed for Wanda version 4.6, allowing FEWS to control Wanda directly using a newly released Java API. The new adapter can be used in a typical configuration with separate Pre- and Post adapters, but also includes a combined adapter that directly executes the Wanda calculation for better performance.	https://publicwiki.deltare.nl/display/WANDA/Wanda+Wiki		
Module Adapter - HEC-HMS	FEWS-21088	Manitoba Hydro	FEWS-19982 MH - HEC-HMS adapter	The FEWS adapter for the HEC-HMS model has been extended to allow parameter updating of elements in the *.basin and *.met files possible.	https://publicwiki.deltare.nl/display/FEWSDOC/HEC-HMS+model+adapter	https://publicwiki.deltare.nl/x/GIG6		
Plugin - Gui - Archive Display	FEWS-22096	TVA / BPA / NWS / BC Hydro	ArchiveDisplay & data set 'simulated' – improve selections	ArchiveDisplay - selection of the simulated data sets improved	Simulated forecast has four components that can be archived : simulated time series, modifiers, states and reports. When data set 'simulated forecast' is selected, the button 'Select...' becomes enabled and in the underlying drop down menu we can select the components that should be downloaded. By default all components are selected. All components can be downloaded separately. Both time series and states can be imported separately. Modifiers can be imported only together with time series. Reports cannot be imported.	https://publicwiki.deltare.nl/display/FEWSDOC/21+Archive+display		

Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
Plugin - Gui - Forecast Manager, System Workflow	FEWS-16595	NRW	FEWS-18387 Configuration option prevent approved forecasts from exporting automatically to the Forecast Web Service (custom event code on current)	WorkflowDescriptor option approvalEventCode	approvalEventCode is user configured event code that is logged upon approving a forecast, instead of default event code "DataStore.NewCurrentRun". approvalEventCode make it possible to log different approval event codes per workflow, so that different actions can be triggered by Master-Controller after approving particular forecast(s). approvalEventCode can be any string that meets requirements of the event code pattern	https://publicwiki.deltare.nl/display/FEWSDOC/13+WorkflowDescriptors	Use 'approvalEventCode' to take more control over the triggering of the actions by Master_controller after the forecast approval. Both workflows below do exactly the same forecast, but log different approval event code. Only the code FluvialForecast.Approved is used in Event Action Mapping (more info https://publicwiki.deltare.nl/display/FEWSDOC/Event+and+Action) Master-Controller triggers any follow up action only when FluvialForecast becomes approved. FluvialForecastIntermediate can be run without any follow up actions (code:xml) <pre> <workflowDescriptor id="FluvialForecastIntermediate" forecast="true" visible="true" autoApprove="true"> <approvalEventCodes>FluvialForecastIntermediate.Approved</approvalEventCode> </workflowDescriptor> <workflowDescriptor id="FluvialForecast" forecast="true" visible="true" autoApprove="true"> <approvalEventCodes>FluvialForecast.Approved</approvalEventCode> </workflowDescriptor> </pre>	
Plugin - Gui - Grid Display	FEWS-22360	NRW	FEWS-18387 It should be possible to run a model in the FEWS client with one or more selected ensemble members	In the manual forecast display can now be specified for which ensemble member indices the workflow should run. Separated by comma and use - for ranges. For example 1,5-7,11	In the manual forecast display can now be specified for which ensemble member indices the workflow should run. Separated by comma and use - for ranges. For example 1,5-7,11	https://publicwiki.deltare.nl/display/FEWSDOC/06+ManualForecastDisplay/Runforselectedensemblememberindices		
Plugin - Gui - Grid Display	FEWS-22527	ARFS	FEWS-20489 Display true color imagery (3-bands) in GridDisplay	True color imagery (3-bands) as grid time series.	In the spatial display it is now possible to combine three time series, representing the red, green and blue channel, to one true (16 million) color grid time series. Double clicking a cell will show the three color components as separate time series in the time series dialog.	https://publicwiki.deltare.nl/display/FEWSDOC/01+GridDisplay/01GridDisplay-Displaytruecolorimagery3-bands%28since2019-02-09%29	(code:xml) <pre> <script id="RGB"> <tdid>Layer</tdid> <redTimeSeriesSet> <moduleInstanceId>InterpolateSentinel2</moduleInstanceId> <valueType>grid</valueType> <parameterId>Intensity_B4</parameterId> <locationId>A21</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="nonequidistant"/> <relativeViewPeriod unit="week" end="52" start="-52"/> <readWriteModes>read only</readWriteModes> <multiplier>1000</multiplier> <!-- red contrast --> <incrementer>20</incrementer> <!-- red brightness --> </redTimeSeriesSet> <greenTimeSeriesSet> <moduleInstanceId>InterpolateSentinel2</moduleInstanceId> <valueType>grid</valueType> <parameterId>Intensity_B3</parameterId> <locationId>A21</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="nonequidistant"/> <relativeViewPeriod unit="week" end="52" start="-52"/> <readWriteModes>read only</readWriteModes> <multiplier>1000</multiplier> <!-- green contrast --> <incrementer>20</incrementer> <!-- green brightness --> </greenTimeSeriesSet> <blueTimeSeriesSet> <moduleInstanceId>InterpolateSentinel2</moduleInstanceId> <valueType>grid</valueType> </pre>	
Plugin - Gui - Grid Display	FEWS-19428	NRW	FEWS-18387 Show all ensembleMembers (rather than 'main' only) after double-clicking a grid cell	Option to show the time series for each ensemble member at once for a grid cell	Instead of only the selected member it is now possible to show all time series for each ensemble member at a single click. On an OC with a slow connection and large grids this can be time consuming because the grids for each member and time step are downloaded. Because the grids are locally cached the ensemble time series for the second grid cell will be fast.	https://publicwiki.deltare.nl/display/FEWSDOC/05+SpatialDisplay/05SpatialDisplay-Extractingccalarmtimeseriesofeachensemblememberatonce	see the configuration of the ensemble thumbnails	
Plugin - Gui - Grid Display	FEWS-21903	FOEN	FEWS-9563 FOEN: hide labels of 0 mm rainfall in spatial display and reports	Classbreaks now have the option to hide value labels.	Break now has the attribute hideValueLabel. Default is false, if it is set to true, labels of values that fall into this classbreak will not be displayed.	https://publicwiki.deltare.nl/display/FEWSDOC/01+GridDisplay/01GridDisplay-break	(code:xml) <pre> <classBreaks> <break color="white" label="0 mg/L" opaquenessPercentage="30" lowerValue="0" colorSmoothingEnabled="true" hideValueLabels="true"/> <break color="070268" label="10 mg/L" lowerValue="10" colorSmoothingEnabled="true"/> </classBreaks> </pre>	

Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
Plugin - Gui - Schematic Status Display	FEWS-21420	RWS	Topology; open certain scadaDisplay, open certain scadaPanel	A new feature has been implemented for SSD (Scada) displays, where nodes in the topology panel can be used to navigate between specific SSD panels and displays.	By adding specific attributes (scadaDisplayId, ScadaPanelId) to nodes of the topology, it is now possible to open a specific SSD panel and display by selecting topology nodes.	https://publicwiki.deltare.nl/pages/viewpage.action?pageId=8684070#id:35SchematicStatusDisplay(formerlyScadaDisplay).NavigationusingTopology		
Plugin - Gui - Schematic Status Display, System - PI Service	FEWS-20579	RWS	FEWS-20398 FEWS Webservice development to support actions as configured in Schematic Status Display	The recently developed Schematic Status Display (SSD) web service has been extended with methods to support interaction with a status display	The GetAction request has been added to the SSD web service to support interaction with a display. A basic test webpage page has been developed to load a SSD display in the web browser in scalable vector graphics format (SVG) and demonstrate this new GetAction command response.	https://publicwiki.deltare.nl/s/0r0t8w		
Plugin - Gui - System Monitor	FEWS-18417	Deltare	FEWS-18245 Window real estate of the live system status should be optimized	In System Monitor - Live System tab the panels can be resized	To benefit more from available space (real estate) the panels in the System Monitor - Live System tab can be resized	https://publicwiki.deltare.nl/display/FEWSDOC/08+SystemMonitor+id-08SystemMonitor+LiveSystemStatus		
Plugin - Gui - System Monitor	FEWS-22619	Deltare	Systemmonitor shows MC logfile instead of Admin Interface logging	Collected log files for Admin Interface and Web Services.	Admin Interface logs now have a custom log source: ai When using collected logfiles the indexed logfiles of the AdminInterface are now collected for the current MC in the MCID/ai subdirectory. For the WebServices for each webservice a MCID/ws/taskrunid folder is created with the collected log files, since there can be multiple WebServices running for the same MC.	https://publicwiki.deltare.nl/display/FEWSDOC/Collect+System+Log+Files		
Plugin - Gui - Time Series	FEWS-17892	GO-FEWS	FEWS-17812 Create on-the-fly expression series based on other on-the-fly expression series	Expression series can now be created based on other expression series as source	Expression series can now be created based on other expression series as source	https://publicwiki.deltare.nl/display/FEWSDOC/30+Visibility+Dialog+and+On+The+Fly+Expression+Series+id-30VisibilityDialogandOnTheFlyExpressionSeries+Creatingexpressionseriesbasedonotherepressionseries[id-302019.02]		
Plugin - Gui - Time Series	FEWS-11608	GO-FEWS (Dutch Waterboards)	FEWS-18160 Improvement to URL references	Improved way to store external URLs to images or PDFs on an external (network) drive	The functionality to show an image or pdf from an external source when a time step is selected in the time series table has been improved. More details can be found here: https://publicwiki.deltare.nl/pages/viewpage.action?pageId=92579788	https://publicwiki.deltare.nl/pages/viewpage.action?pageId=92579788		
Plugin - Gui - Time Series	FEWS-19649	Quebec	FEWS-16663 Québec: ability to have thresholds displayed on both left/right axes	TimeSeriesDisplay – ability to have thresholds displayed on both left and right axes	Thresholds can be displayed on the left axis, or on the right axis, or on both. By default the thresholds are displayed on the left axis. To change it, an option 'thresholdAxis' can be used in DisplayGroups.xml. Configure <thresholdAxis=right>/thresholdAxis> if only the right axis should have thresholds, and <thresholdAxis=both>/thresholdAxis> if both left and right axes should have thresholds Picture plot1.png shows a plot created with the config example below. Option <thresholdAxis=both>/thresholdAxis> creates plot as shown in picture plot2.png	https://publicwiki.deltare.nl/display/FEWSDOC/03+DisplayGroups+thresholdAxis	<pre><code.xml> <plot id="StageOnLeftAxis_DischargeOnRightAxis"> <subplot> <thresholdAxis=right>/thresholdAxis> </subplot> </code></pre> <pre><code.xml> <timeSeriesSet> <moduleInstanceId=Import>/moduleInstanceId> <valueType>scalar</valueType> <parameterId=H.m</parameterId> <locationSetId=AllLocations</locationSetId> </timeSeriesType>external historical</timeSeriesType> <relativeViewPeriod unit="hour" start="-12" end="0"/> <readWriteMode=read only</readWriteMode> </timeSeriesSet> </line> </code></pre> <pre><code.xml> <axis=right>/axis> </timeSeriesSet> <moduleInstanceId=Import>/moduleInstanceId> <valueType>scalar</valueType> <parameterId=Q.m</parameterId> <locationSetId=AllLocations</locationSetId> </timeSeriesType>external historical</timeSeriesType> <timeStep unit="hour"/> <relativeViewPeriod unit="hour" start="-12" end="0"/> <readWriteMode=read only</readWriteMode> </timeSeriesSet> </line></pre>	

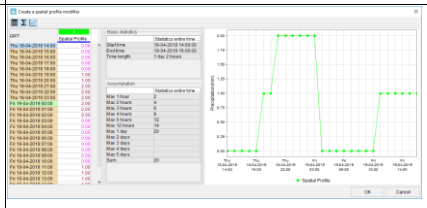
Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
Plugin - Gui - Time Series, System	FEWS-21175	ZZL	FEWS-18160 Freeze old data in timeseries	Introduce readOnlyPeriod, that can make part of a time series uneditable	Since 2020.01 it is possible to "freeze" part of a time series and make that part uneditable. This can be useful if the values need to be evaluated and verified, than used in different systems. This ensures that they all contain the same data, and that cannot change. This can be done by configuring a ReadOnlyPeriod. This contains a relative time, and a time series filter. All time series that match the filter become uneditable before the given relative time. You can configure as many readOnlyPeriods as you wish. They should be configured in the TimeSeriesDisplayConfig, following <code>scroller.DefaultViewPeriod</code> . The image below shows the time from when the time series becomes uneditable. "Frozen" time series can be edited, if "enable editing read only period" option is selected. Time series that are entirely uneditable remain so.	https://publicwiki.deltares.nl/display/FEWSDOC/04+Data+Display+and+Data+Editor/04DataDisplayandDataEditor+ReadOnlyPeriod	<pre>(code:xml) <!-- This item is not fully configured, only displayed to show the position of readOnlyPeriod in the XML file--> <description>...</description> <!-- This item is not fully configured, only displayed to show the position of readOnlyPeriod in the XML file--> <generalDisplayConfig>...</generalDisplayConfig> <!-- This item is not fully configured, only displayed to show the position of readOnlyPeriod in the XML file--> <defaultViewPeriod unit="day" start="-5" end="5"/> <!-- This item is not fully configured, only displayed to show the position of readOnlyPeriod in the XML file--> <globalDatumLocationSetId>...</globalDatumLocationSetId> <scroller.DefaultViewPeriod start="-2" end="2" unit="hour"/> <readOnlyPeriod> <relativeTime value="-2" unit="day"/></relativeTime> <timeSeries> <locationId>LocA</locationId> </timeSeries> </readOnlyPeriod> (code)</pre>	
Plugin - Gui - Time Series	FEWS-20299	GO-FEWS	FEWS-18160 Jump to latest (non-equi) value	New button to move the view period to the first or to the last data point available in the time series display	Since 2020.01 it is possible to move the view period to the first or to the last data point available in the time series display. This will not change the zoom in the display.	https://publicwiki.deltares.nl/display/FEWSDOC/04+Data+Display+and+Data+Editor/04DataDisplayandDataEditor+Changingtheviewperiod		
Plugin - Gui - Time Series	FEWS-22126	WarningUp	FEWS-21063 warningUP: Show difference of series between two runs (abs/rel)	Added compare runs option to differences statistical function	The functionality is added to the Differences statistical function, under the option Compare runs. This option is only available if you have selected at least 2 different runs for each timeSeriesSet in the display. The number can be greater than 2, and does not need to be the same number for all timeSeries. (For example 2 different runs for parameter A, and 3 for B). As reference level, the oldest of this runs is selected, and the difference compared to this run is displayed. (Run value - reference run value) If the checkbox "Relative difference(%)" is checked, the relative difference will be displayed (in %). This is available for all three options. $100 * (\text{TimeSeries value} - \text{reference TimeSeries value}) / \text{reference TimeSeries value}$. If the reference value is 0, N.A.N will be the result.	https://publicwiki.deltares.nl/display/FEWSDOC/Statistical+functions/Statisticalfunctions+Differences	<pre>-statisticalFunction function="differences"/></pre>	
Plugin - Gui - Time Series	FEWS-22365	NRW	FEWS-18387 Wind direction displays should be appropriate for a directional timeseries	Configure maximum value difference in timeSeriesDisplay	Optional field. It should be a positive number. If it is configured, two neighboring points in the time series display will not be connected, if the difference between their values is greater than the configured value. This can be useful feature for parameters such as wind direction, when the values can go back and forth between 0 and 360.	https://publicwiki.deltares.nl/display/FEWSDOC/02+Time+Series+Display+Configuration/02TimeSeriesDisplayConfiguration-maxValueDifference	<pre>(code:xml) <parameterDisplayOptions id="WindDirection"> <preferredColor>red</preferredColor> <lineStyle><!--lineStyle--> <maxValueDifference>250</maxValueDifference> </parameterDisplayOptions> (code)</pre>	
Plugin - Gui - Time Series Modifier	FEWS-22265	Deltares	Improve logging of ModuleConfigQuickScanner	Improved logging of ModuleConfigQuickScanner	The module config quick scanner (this part of the software parses the workflows for the IFD) now has better and understandable logging.			
Plugin - Module - (Primary) Validation	FEWS-21008	HDSR	New primary validation "Oscillation"	Add a new primary validation: oscillation detection	A new primary validation method was added to detect oscillation. A new flag source "OSC" (oscillation) was added which will be given to values where oscillation has been detected. Support for this flag source was added in various components such as the interval statistics and flag source counts report.	https://publicwiki.deltares.nl/display/FEWSDOC/08+ValidationRulesets/08ValidationRulesets+ValidationonOscillation	<pre>(code:xml) <validationRuleSet validationRuleSetId="OscillationSimpleTest" timeZone="GMT"> <oscillation validationFlag="doubtful"> <minDifference constantLimit="0.3"/> <maxPeriod constantLimit="259200"/> <!-- 3 days --> <minOscillations constantLimit="2.5"/> </oscillation> </timeSeriesSet> ... </timeSeriesSet> </validationRuleSet> (code)</pre>	
Plugin - Module - (Primary) Validation	FEWS-22212	HDSR	FEWS-9707 HDSR: BUG: same reading & missing values	Option excludeMissingFromSameReadingPeriod added to sameReading. If true a same reading period ends when a missing value is found. Default is false.	Option <code>excludeMissingFromSameReadingPeriod</code> added to <code>sameReading</code> . If true a same reading period ends when a missing value is found. Default is false.	https://publicwiki.deltares.nl/display/FEWSDOC/08+ValidationRulesets/08ValidationRulesets+excludeMissingFromSameReading		
Plugin - Module - Archive	FEWS-20611	RWS	FEWS-22250 Uitbreiding Seamless integration importactie t.b.v. Open deel van FEWS Archief voor 2D external forecast data	All new features/improvements requested for 2020.02 must be known BEFORE 01.06.2020 Summary Required Uitbreiding Seamless integration importactie t.b.v. Open deel van FEWS Archief voor 2D external forecast data Description <code>StyleBoldItalicUnderlineText</code> co	The seamless integration for WMS is extended with the possibility of reading external forecasts from the netcdf storage.	https://publicwiki.deltares.nl/display/FEWSDOC/7+The+Delta+res+Open+Archive		
Plugin - Module - Archive	FEWS-21526	UAE Navy	FEWS-19924 Extend/improve harvester and catalogue to provide PI web service requests - part 1	Locations and parameters from the Open Archive's NetCDF-storage available in catalogue	The harvester for the NetCDF-storage is now capable of extracting the locations and parameters which are available in the NetCDF files and store them into the archive catalogue.	https://publicwiki.deltares.nl/display/FEWSDOC/7+The+Delta+res+Open+Archive		
Plugin - Module - Archive	FEWS-21530	UAE Navy	FEWS-19924 Extend/improve harvester and catalogue to provide PI web service requests - part 2	Locations and parameters from the Open Archive's NetCDF-storage available in catalogue	The harvester for the NetCDF-storage is now capable of extracting the locations and parameters which are available in the netcdf files and store them into the archive catalogue.	https://publicwiki.deltares.nl/display/FEWSDOC/7+The+Delta+res+Open+Archive		

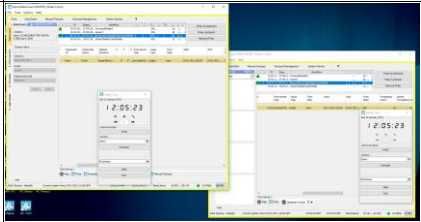
Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
Plugin - Module - Archive	FEWS-20610	RWS	FEWS-22250 Uitbreiding Seamless integration zoekactie t.b.v. Open deel van FEWS Archief voor 2D external forecast data			https://publicwiki.deltare.nl/display/FEWSDOC/The+Deltares+Open+Archive		
Plugin - Module - Archive	FEWS-21374	RWS	Optimize archive exports	Archive Export : <exportTimeSeries> to export (all) time series created by the configured workflow Id (without configuration of TimeSeriesSets)	<p><exportTimeSeries> is able to export all time series created or modified in a configured workflow . The amount of the time series to export can be limited by configuration of time series filters.</p> <p>The example below exports all time series created in the configured workflow :</p> <pre><workflowTimeSeries> <idMapId>IdArchive</idMapId> <areald>MyArea</areald> <workflowId>FluvialForecast</workflowId> </workflowTimeSeries></pre> <p>And this example exports only external forecasts created by module ImportExternalForecast :</p> <pre><workflowTimeSeries> <areald>NL</areald> <idMapId>IdArchive</idMapId> <includeTimeSeriesProperties>false</includeTimeSeriesProperties> <sourceId>KNMI</sourceId> <workflowId>ImportExternal</workflowId> <timeSeries> <moduleInstanceId>ImportExternalForecast</moduleInstanceId> <timeSeriesType>external forecasting</timeSeriesType> </timeSeries> </workflowTimeSeries></pre> <p>If the workflowId is a forecast.</p>	https://publicwiki.deltare.nl/display/FEWSDOC/2.+Export+to+Deltare+Open+Archive	<pre><code>xml <?xml version="1.0" encoding="UTF-8"?> <exportArchiveModule xmlns="http://www.widelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.widelft.nl/fews http://fews.widelft.nl/schemas/version1.0/exportArchiveModule.xsd"> <exportTimeSeries> <general> <archiveFolder>\${ARCHIVE_FOLDER}</archiveFolder> <allowFD>true</allowFD> </general> <workflowTimeSeries> <areald>NL</areald> <idMapId>IdArchive</idMapId> <includeTimeSeriesProperties>false</includeTimeSeriesProperties> <sourceId>KNMI</sourceId> <workflowId>FluvialForecast</workflowId> <timeSeries> <timeSeriesType>simulated forecasting</timeSeriesType> </timeSeries> </workflowTimeSeries> </exportArchiveModule></pre>	
Plugin - Module - Archive	FEWS-22009	Deltare	daily automatic deployment of archive server from teamcity	teamcity deploys the archive server war to the testserver daily	teamcity deploys the archive server war to the testserver daily	https://publicwiki.deltare.nl/display/FEWSDOC/Configure+the+Delft-FEWS+Archive+Server		
Plugin - Module - Data Export	FEWS-22115	Deltare	FEWS-18050 IMFS: Convert old EAExport module to new timeseriesExport	EA export type to export scalar time series to Environment Agency (EA) xml format	<p>Since 2019.02 <exportTypes>EA</exportTypes> should be used in TimeSeriesExport module instead of configuring EA specific exportRun module.</p> <p>EA specific exportRun module is deprecated and will be removed starting with release 2020.02</p>	https://publicwiki.deltare.nl/display/FEWSDOC/EA+XML		
Plugin - Module - Data Export	FEWS-22660	RWS	FEWS-22250 Include lat / lon in NETCDF_CF_PROFILE_MATROOS	Export type NETCDF_CF_PROFILE and NETCDF_CF_PROFILE_MATROOS - optional including lat,lon coordinates	By default these two export types write only x,y coordinates to the NC file. To write also lat,lon coordinates, configure the following property in TimeSeriesExport module:	https://publicwiki.deltare.nl/display/FEWSDOC/Available+Data+Types		
Plugin - Module - Data Export	FEWS-19436	NRW	FEWS-18387 Add ModuleInstanceId to IdMapping	Module instance in id map.	It is now possible to take the module instance into account while mapping internal ids to external ids a visa versa. For example you can now map the internal module instance id to different external parameter ids while the internal parameter is the same.	https://publicwiki.deltare.nl/display/FEWSDOC/01+Id+Mapping	<pre><code>xml <?xml version="1.0" encoding="UTF-8"?> <idMap xmlns="http://www.widelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.widelft.nl/fews http://fews.widelft.nl/schemas/version1.0/IdMap.xsd" version="1.1"> <!--> <map internalModuleInstance="Model-A" internalParameter="Q.m" internalLocation="H-2001" externalParameter="AA" externalLocation="A"/> <map internalModuleInstance="Import" internalParameter="Q.m" internalLocation="H-2001" externalParameter="BB" externalLocation="A"/> </idMap></pre>	
Plugin - Module - Data Import	FEWS-22664	Covadem	Covadem: add new import for ship tracks	Add new Covadem Track 2 import added.	Add new Covadem Track 2 import added.	https://publicwiki.deltare.nl/display/FEWSDOC/Covadem+Track2		

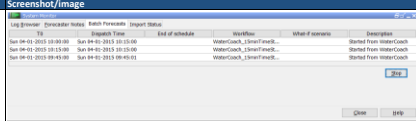
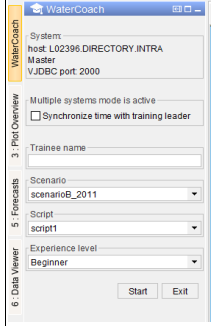
Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
Plugin - Module - Data Import	FEWS-22174	gloffis	to import module, add cumulativeMean option	Implement cumulativeMean in TimeSeriesImport	Similar to cumulativeSum, cumulativeMean is implemented in TimeSeriesImport.	https://publicwiki.deltareis.nl/display/FEWSDOC/importModule+configuration+options#importModuleconfiguration+options-externUnit		
Plugin - Module - Data Import	FEWS-22562	JBA	Extend Grib2 file format with projection (OS British National Grid)	Import type GRIB2_UKV to import JBA UKV grib2 file	UKV grib2 is projected onto a OS British National Grid using a Transverse Mercator projection which is encoded in grib2 using template 12. Since Transverse Mercator is not supported by original NetCDF Grib2 decoder, a patch for this decoder has been included in NetCdf library. The patched Grib2 decoder returns LatLon if the projection is coded in the grib2 using template 12. If needed, the grid definition should be overwritten in Grids.xml. Also, the read grid is automatically reverted along both X and Y axis.	https://publicwiki.deltareis.nl/display/FEWSDOC/Available+data+types		
Plugin - Module - Data Import	FEWS-22806		Import for KNMI radar nowcast hdf5 file	Knmi-Hdf5-Radar-Nowcast import type	Imports gridded time series from KNMI HDF5 file. This file has the following characteristics: - grids for separate events are stored in image elements 'image1/image_data', 'image2/image_data', 'image3/image_data', ... i.e. one image element per event - event time is stored in image attribute 'image_datetime_valid', using format dd-MMM-yyyy:HH:mm:ss.SSS - the file contains grids for only one variable (parameter), so no Id mapping is needed - the file contains Stereographic geo-datum. Stereographic geo-datum is geo-datum with parameters and in this case the overruling geometry is always required in Grids.xml.			
Plugin - Module - Data Import	FEWS-19954	EA	FEWS-18050 FFFS: Import of external data from BWQ API	For the FFFS project, a new import (parser) was developed for importing Bathing Water Quality (BWQ) data provided by the UK Environmental Agency.	Imports pollution incident and suspension of monitoring event data from a JSON web service provided by the UK Environmental Agency (EA) to meet UK reporting obligations under the EU Bathing Water Directive.	https://publicwiki.deltareis.nl/x/GaArC		
Plugin - Module - Data Import	FEWS-21982	RWS	3D netCDF importer does not allow additional CONSTIT dimension in netCDF	3D netCDF importer will now allow additional CONSTIT dimension in netCDF	3D netCDF importer will now allow additional CONSTIT dimension in netCDF	https://publicwiki.deltareis.nl/display/FEWSDOC/NETCDF+TIME SERIES		
Plugin - Module - Data Import	FEWS-21905	Deltareis	FEWS-21134 Support for passive mode (FTP) in timeseries import module	Support for passive mode (FTP) in timeseries import module	Support for passive mode (FTP) in timeseries import module	https://publicwiki.deltareis.nl/display/FEWSDOC/importModule+configuration+options#ftpPassiveMode	<pre>(code.xml) <general> <importType>importType</importType> <folder>ftp/external</folder> <ftpPassiveMode>true</useFTPPassiveMode> </general> (code)</pre>	

Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
Plugin - Module - Data Import	FEWS-21126	Entidad Binacional Yacretá	New import for webservice data from INA agency (Argentina)	New import for webservice data from INA agency (Argentina)	<p>Data is imported from https://aleria.ina.gov.ar/pub/mapa. Example query:</p> <p><code>https://aleria.ina.gov.ar/pub/datos/datos&timeStart=2019-06-27&timeEnd=2019-07-03&siteCode=156&varId=2&format=json</code></p> <p>Time start and time end are from the period defined in the configuration file. SiteCode is the (external) location id, varId is the (external) parameter id.</p> <p>From the data set "time start" is used as the timestep, "varId" is the imported value.</p>	https://publicwiki.deltare.nl/display/FEWSDOC/Yacretalimport	<pre>(code:xml) <?xml version="1.0" encoding="UTF-8"?> <timeSeriesImportRun xmlns="http://www.widelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.widelft.nl/fews http://fews.widelft.nl/schemas/version1.0/timeSeriesImportRun.xsd"> <import> <general> <importType>Yacretalimport</importType> <serverUrl>https://aleria.ina.gov.ar/pub/datos/datos</serverUrl> <user>user</user> <password>password</password> <relativeViewPeriod unit="day" start="-5" end="0" startOverrutable="true" endOverrutable="true"/> <idMapId>YacretalimportMapper</idMapId> </general> <timeSeriesSet> <moduleInstanceCellId>Yacretalimport</moduleInstanceCellId> <valueType>scalar</valueType> <parameterId>parameterId</parameterId> <locationId>locationId</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="nonequidistant"/> <readWriteMode>add originals</readWriteMode> </timeSeriesSet> </import> </timeSeriesImportRuns>(code)</pre>	
Plugin - Module - Data Import	FEWS-22243	FEWS-Spain	Import: FEWS-Spain EHDCC API REST	Import: FEWS-Spain EHDCC API REST	<p>Data is imported from EHDCC. Example query:</p> <p><code>https://hdcc.soologic.com/wsOperational/webapi/nrt/2016-05-01T00:00:00/2016-05-04T00:00:00/118/W</code></p> <p>in the query:</p> <p>Initial date: 2016-05-01T00:00:00 Final date: 2016-05-04T00:00:00 Station (EFAS ID) (locationID): 118 Values of water level and discharge</p> <p>In the response:</p> <p>1st column: EFAS ID (locationID) 2nd column: timestamp of the measurement 3rd column: water level (-999 means "no value") 4th column: discharge (-999 means "no value")</p>	https://publicwiki.deltare.nl/display/FEWSDOC/EHDCCimport	<pre>(code:xml) <?xml version="1.0" encoding="UTF-8"?> <timeSeriesImportRun xmlns="http://www.widelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.widelft.nl/fews http://fews.widelft.nl/schemas/version1.0/timeSeriesImportRun.xsd"> <import> <general> <importType>EHDCC</importType> <serverUrl>https://hdcc.soologic.com/wsOperational/webapi/nrt/% TIME_ZER%0%yyyy-MM- ddT%H:mm:ss%/%RELATIVE_TIME_IN_SECONDS/yyyy-MM- ddT%H:mm:ss,432000%</serverUrl> <user>user</user> <password>password</password> <relativeViewPeriod unit="day" start="0" end="15" startOverrutable="true" endOverrutable="true"/> <idMapId>EHDCCimportMapper</idMapId> </general> <timeSeriesSet> <moduleInstanceCellId>EHDCCimport</moduleInstanceCellId> <valueType>scalar</valueType> <parameterId>param1</parameterId> <locationId>LocA</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="nonequidistant"/> <readWriteMode>add originals</readWriteMode> </timeSeriesSet> </import> </timeSeriesSet></pre>	
Plugin - Module - Data Import	FEWS-22105	FEWS-Uruguay	FEWS-22108 FEWS-UY Salto Grande Web Service Import	UY Salto Grande Web Service Import	<p>Imports data form Web service of Salto Grande: https://www.saltogrande.org/ws.php?wsdl.</p> <p>Available since 2018.02.</p>	https://publicwiki.deltare.nl/display/FEWSDOC/UYsaltoimport	<pre>(code:xml) <?xml version="1.0" encoding="UTF-8"?> <!-- edited with XMLSpy v2006 rel. 3 sp1 (http://www.altova.com) by Computer Services (WL Delt Hydralics) --> <timeSeriesImportRun xmlns="http://www.widelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.widelft.nl/fews http://fews.widelft.nl/schemas/version1.0/timeSeriesImportRun.xsd"> <import> <general> <importType>UYsalto</importType> <serverUrl>https://www.saltogrande.org/ws.php</serverUrl> <!-- this field is not used, but it is necessary to be able to configure connection timeout--> <backupServerUrl>https://www.saltogrande.org/ws.php</backupServerUrl> <!-- if this field is not configured, it will be set at 2000 automatically --> <connectionTimeOutMillis>10000</connectionTimeOutMillis> <user>user</user> <password>password</password> <relativeViewPeriod unit="day" start="-3" end="0" startOverrutable="true" endOverrutable="true"/> <idMapId>UYsaltoMap</idMapId> </general> <timeSeriesSet> <moduleInstanceCellId>UYsalto</moduleInstanceCellId> <valueType>scalar</valueType> <parameterId>paramA</parameterId></pre>	

Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
Plugin - Module - Data Import	FEWS-22103	FEWS-Uruguay	FEWS-22108 FEWS-UY ANA Web Service Import	FEWS-UY ANA Web Service Import	Available since 2020.01. Present parser allows to download and import meteorological observations from http://telemetriaws1.ana.gov.br/ServiceANA.asmx . Example url request: http://telemetriaws1.ana.gov.br/ServiceANA.asmx/DadosHidrometeorologicos?codEstacao=76750000&dataInicio=01/12/2019&dataFim=15/12/2019 In which: CodEstacao - location ID dataInicio - start time dataFim - end time When configuring view period, please note that start and end times in the url increase/decrease by day, so the view period should also be at least a day long.	https://publicwiki.deltare.nl/display/FEWSDOC/UY-ANA+import	<pre><?xml version="1.0" encoding="UTF-8"?> <timeSeriesImportRun xmlns="http://www.wildelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.wildelft.nl/fews http://fews.wildelft.nl/schemas/version1.0/timeSeriesImportRun.xs d"> <import> <general> <importType>UyAna</importType> <serverUrl>http://telemetriaws1.ana.gov.br/ServiceANA.asmx/Dad osHidrometeorologicos?codEstacao=<serverUrl> <user>user</user> <password>password</password> <relativeViewPeriod unit="day" start="-5" end="0" startOverrutable="true" endOverrutable="true"/> <idMapId>UyAnaIdMap</idMapId> </general> <timeSeriesSet> <moduleInstanceId>UyAna</moduleInstanceId> <valueType>scalar</valueType> <parameterId>rain</parameterId> <locationId>LoCB</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="nonequidstart"/> <readWriteMode>add originals</readWriteMode> </timeSeriesSet> </timeSeriesSet> <moduleInstanceId>UyAna</moduleInstanceId> <valueType>scalar</valueType></pre>	
Plugin - Module - Data Import	FEWS-22104	FEWS-Uruguay	FEWS-22108 FEWS-UY DINAGUA Web Service Import	Import data from Dinagua service	Imports data from https://app.mvotma.gub.uy/dinaguaws/dinaguaws/?wsdl . When configuring the import for the first time, the certificate of the service needs to be added to the FEWS truststore. To add it to the truststore, use F12, convert, convert certificate file to clientConfig.keystore, like shown on the image. This has to be done only one time. The Dinagua service has different sources, including: DINAGUA, CTM, UTE. Different locations belong to different services. If data is required from different services, a separate import should be configured for each source, as show below. Please note, names of parameters may also vary per source.	https://publicwiki.deltare.nl/display/FEWSDOC/UY-Dinagua+import	<pre><?xml version="1.0" encoding="UTF-8"?> <timeSeriesImportRun xmlns="http://www.wildelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.wildelft.nl/fews http://fews.wildelft.nl/schemas/version1.0/timeSeriesImportRun.xs d"> <import> <general> <importType>UyDinagua</importType> <serverUrl>https://app.mvotma.gub.uy/dinaguaws/dinaguaws.dna guaweh/Soap11Endpoint/<serverUrl> <!-- this field is not used, but it is necessary to be able to configure connection timeout--> <backupServerUrl>url</backupServerUrl> <!-- if this field is not configured, it will be set at 2000 automatically --> <connectionTimeOut>10000</connectionTimeOut> <user>USERNAME</user> <password>PASSWORD</password> <relativeViewPeriod unit="day" start="-3" end="0" startOverrutable="true" endOverrutable="true"/> <idMapId>UyDinaguaMap</idMapId> </general> <properties> <string key="Source" value="DINAGUA"></string> </properties> <timeSeriesSet> <moduleInstanceId>UyDinagua</moduleInstanceId> <valueType>scalar</valueType> <parameterId>parameter1</parameterId></pre>	
Plugin - Module - Data Import	FEWS-21561	WS Vallei & Veluwe	Web service (import/connection) with Multiflexmeter API	Import Multiflexmeter API	Import and documentation are complete. Still waiting for client to test.	https://publicwiki.deltare.nl/display/FEWSDOC/Multiflex+Meter		
Plugin - Module - Data Import	FEWS-20301	MDBA	FEWS-14730 Connect to MQTT protocol for receiving data (R_301)	Azure IOT Hub Import for messages in the PI XML Format	Azure IOT Hub Import for messages in the PI XML Format.	https://publicwiki.deltare.nl/display/FEWSDOC/AzureIoT+Hub		
Plugin - Module - General Adapter	FEWS-21934	Land-OOE	FEWS-11611 FEWS extend ZIPActivity in General Adapter Module	The General adapter Zip activity has been extended to allow selection of files to be zipped using wildcards.	In addition to zipping complete directories, the General adapter zip activity can now also be used to zip only selected files using a search pattern that supports wildcards.	https://publicwiki.deltare.nl/display/FEWSDOC/D5+Genera+l+Adapter+Module#id-05GeneralAdapterModule+zipActivity		
Plugin - Module - General Adapter	FEWS-21069	WarningUp	FEWS-21063 warningUP: GA export location attributes in csv	Exports location attributes to csv format. Supports empty location sets, <locationIdColumn> optional	Exports location attributes to csv format. Supports empty location sets, <locationIdColumn> optional	https://publicwiki.deltare.nl/display/FEWSDOC/D5+Genera+l+Adapter+Module#id-05GeneralAdapterModule+exportLocationAttributesCsvActivity		
Plugin - Module - General Adapter	FEWS-22589	HNHK	Support of NetCDF4 in General Adapter	Support of NetCDF4 in General Adapter	Optional formatId <netcdfFormat>netcdf4</netcdfFormat> was added to the configuration. Default value is netcdf3.	https://publicwiki.deltare.nl/display/FEWSDOC/D5+Genera+l+Adapter+Module#id-05GeneralAdapterModule+netcdfFormat	<pre><?xml> <exportNetcdfActivity> <exportFile>timeseries.nc</exportFile> <netcdfFormat>netcdf4</netcdfFormat> <timeSeriesSets> <timeSeriesSet> <moduleInstanceId>GeneralAdapterRun</moduleInstanceId> <valueType>scalar</valueType> <parameterId>WaterLevel</parameterId> <locationId>H-2001</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="minute" divide="1" multiplier="15"/> <relativeViewPeriod unit="hour" start="0" end="12"/> <readWriteModes>read only</readWriteModes> <ensembleId>prognose</ensembleId> </timeSeriesSet> </timeSeriesSets> </exportNetcdfActivity></code></pre>	

Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
Plugin - Module - General Adapter	FEWS-21460	Yacyneta	FEWS-21231 Add option to general adapter execute activity to still run after previous execute activity fails	ExecuteActivity has an attribute called "executeOnPreviousError", when true it will be executed even though previous activity has failed	ExecuteActivity has an attribute called "executeOnPreviousError", when true it will be executed even though previous activity has failed	https://publicwiki.deltare.nl/display/FEWSDOC/05+GeneralAdapter+Module#id-05GeneralAdapterModule.executeOnPreviousError	<pre>(code:xml) <executeActivities> <executeActivity> <command> <className>nl.wideft.fews.system.plugin.generaladapter.TestFailingModuleRunnable</className> </command> <timeOut>10000</timeOut> <ignoreDiagnostics>true</ignoreDiagnostics> </executeActivity> <executeActivity executeOnPreviousError="true"> <command> <className>nl.wideft.fews.system.plugin.generaladapter.TestModuleAdapterRunnable</className> </command> <arguments> <argument>output/TestExecuteOnPreviousError.log</argument> </arguments> <timeOut>10000</timeOut> <ignoreDiagnostics>true</ignoreDiagnostics> </executeActivity> </code></pre>	
Plugin - Module - Reports	FEWS-19423	NRW	FEWS-18387 Export reports only when all separate forecasts have finished	ManualForecast option "F12 Select modules to include in next run Ctrl+R" is applicable also in client-server system.	Since the reference to the workflow modules is stored in TaskProperties.xml, element moduleInstanceIndices, the workflow can be run for the selected modules also on FSS. If the element moduleInstanceIndices is omitted, all module instances of the workflow are included	https://publicwiki.deltare.nl/display/FEWSDOC/06+ManualForecast+Display		
Plugin - Module - Spatial Modifiers	FEWS-21541	EA	FEWS-18050 Add statistics to spatial profile modifier panel	Add time length and moving accumulation max statistics, add statistics to spatial profile editor	Two new descriptive statistical functions have been added: "timeLength" and "movingAccumulationMax". The "timeLength" statistic states the length of the time series, for example "1 day 3 hours". The "movingAccumulationMax" statistic can be given several time spans for which the maximum of the moving accumulation is reported. A statistics panel has been added to the spatial profile modifier editor. The descriptive statistics included in this statistics panel can be configured through the ModifierTypes.xml (and differ from the descriptive functions configured in the TimeSeriesDisplayConfig.xml).	https://publicwiki.deltare.nl/display/FEWSDOC/25+ModifierTypes#id-25ModifierTypes.SpatialProfileModifier	<pre>(code:xml) <spatialProfileModifier id="SpatialProfileBE" name="Spatial Profile"> <copyTime unit="day" multiplier="2"/> <userDefinedDescriptionField id="Comment" descriptionField="Comment"/> <timeSeries> <moduleInstanceId=Import_NWP_Mediumrange</moduleInstanceId> <qualifierId=BE</qualifierId> </timeSeries> <descriptiveFunctionGroups> <descriptiveFunctionGroup name="Basic statistics"> <descriptiveFunction function="startTime" ignoreMissings="true"/> <descriptiveFunction function="endTime" ignoreMissings="true"/> <descriptiveFunction function="timeLength" ignoreMissings="true"/> </descriptiveFunctionGroups> <descriptiveFunctionGroup name="Accumulation"> <descriptiveFunction function="movingAccumulationMax" ignoreMissings="true"> <timeSpan unit="hour" multiplier="1"/> <timeSpan unit="hour" multiplier="2"/> <timeSpan unit="hour" multiplier="3"/> <timeSpan unit="hour" multiplier="4"/> <timeSpan unit="hour" multiplier="6"/> <timeSpan unit="hour" multiplier="12"/> <timeSpan unit="hour" multiplier="24"/> </descriptiveFunctionGroup> </descriptiveFunctionGroups></pre>	
Plugin - Module - Transformation	FEWS-21274	HDSR	FEWS-21187 Loop over time dependent location relations used in transformation	The usage of time dependent location relations and time dependent location set constraints is supported in the transformation module from 2020.01 onwards, this was not the case in 2019.02 and before.	The usage of time dependent location relations and time dependent location set constraints is supported in the transformation module from 2020.01 onwards, this was not the case in 2019.02 and before.	https://publicwiki.deltare.nl/display/FEWSDOC/21+TimeDependent+Locations#id-21TimeDependentLocations.Transformations		
Plugin - Module - Transformation	FEWS-21273	HDSR	FEWS-21187 Loop over time dependent location relations in time series set	The usage of time dependent location relations and time dependent location set constraints is supported in the transformation module from 2020.01 onwards, this was not the case in 2019.02 and before.	The usage of time dependent location relations and time dependent location set constraints is supported in the transformation module from 2020.01 onwards, this was not the case in 2019.02 and before.	https://publicwiki.deltare.nl/display/FEWSDOC/21+TimeDependent+Locations#id-21TimeDependentLocations.Transformations		
Plugin - Module - Transformation	FEWS-21272	HDSR	FEWS-21187 Loop over time dependent changes in location sets	The usage of time dependent location relations and time dependent location set constraints is supported in the transformation module from 2020.01 onwards, this was not the case in 2019.02 and before.	The usage of time dependent location relations and time dependent location set constraints is supported in the transformation module from 2020.01 onwards, this was not the case in 2019.02 and before.	https://publicwiki.deltare.nl/display/FEWSDOC/21+TimeDependent+Locations#id-21TimeDependentLocations.Transformations		
Plugin - Module - Transformation	FEWS-18368	Deltare	FEWS-21187 Add check in transformation module whether input is time dependent and if the transformation function supports this	There will be a warning for transformations that do not support time dependent location set constraint changes or time dependent location relation changes within their run period.	There will be a warning for transformations that do not support time dependent location set constraint changes or time dependent location relation changes within their run period, this will mainly be transformations that have multiple time input and or output (like aggregation and accumulation), because the individual transformation can not handle a change in within their input or output period.	https://publicwiki.deltare.nl/display/FEWSDOC/21+TimeDependent+Locations#id-21TimeDependentLocations.Transformations		
Plugin - Module - Transformation	FEWS-14329	EA	FEWS-18050 Improvements to Transformation functions for Coastal Forecasting	This transformation can be used to determine the threshold level for a certain location by using location attributes.	This transformation can be used to determine the threshold level for a certain location by using location attributes. The location attributes define for each output location which time series should be used to determine the threshold level. Also the range for each threshold can be defined here. More information can be found here.	https://publicwiki.deltare.nl/display/FEWSDOC/MultiVariable+threshold+transformation		
Plugin - Module - Transformation	FEWS-21125	Taolinku Reservoir	merge->selectDataSource only works for scalar time series, but not for grid time series	An issue with the Merge transformation SelectDataSource has been fixed so it works correctly with both gridded and scalar data sources.	An issue with the Merge transformation SelectDataSource has been fixed so it works correctly with both gridded and scalar data sources.	https://publicwiki.deltare.nl/v/f4n8Q		

Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
System	FEWS-22169	WarmingUp	FEWS-21063 Accommodate client-type CF (Computational Framework)	New Client Type: Computational Framework	New Client Type: Computational Framework The CF (Computational Framework) client type is intended for desk studies with strong emphasis on scenario analysis, scenario management and comparison. Client type CF works as a stand-alone desktop application with access to the archive. ClientType CF is introduced to protect the live system functionality from Computational Framework functionality which may use displays that do not work in client-server systems or may use features (e.g. not configured files on the file system) that do not work in a client-server environment. Most of the times, the CF client type has similar behaviour to an SA.	https://publicwiki.deltares.nl/display/FEWSDOC/1+Roots+Configuration+Files+for+Operator+Client	<code><?xml version="1.0" encoding="UTF-8"?> <clientConfiguration xmlns="http://www.widelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.widelft.nl/fews http://fevs.widelft.nl/schemas/version1.0/clientConfig.xsd"> <clientType>Computational Framework</clientType> </clientConfiguration> (code)</code>	
System	FEWS-21989	FEWS-Vietnam	FEWS-21636 update FEWS translation EN - VN	update FEWS translation EN - VN	update FEWS translation EN - VN	https://publicwiki.deltares.nl/display/FEWSDOC/Home		
System - PI Service	FEWS-20765	HDSR	Add info on time dependency to getLocations call of PIwebService	Added new optional request parameter to PI web service getLocations call: includeTimeDependency	Added new optional request parameter to PI web service getLocations call: includeTimeDependency. Default value is true. For XML format response this option is available from version 1.26 or greater. If the option is set to true, the response will include: - start end time of the location, if location is time dependent. - if showAttributes is true, and if an attribute is time dependent, for each value it can take it will be listed along with the start and end time and value. - if include RelationLocations is true, and the location relation is time dependent, the end and start time of the relation will be listed. Example response: (code) { "locationId": "locB", "shortName": "B", "lat": "7.0", "lon": "7.0", "x": "7.0", "y": "7.0", "z": "7.0", "attributes": [{ "name": "TEST_ATTRIBUTE", "type": "text",	https://publicwiki.deltares.nl/display/FEWSDOC/FEWS+PI+REST+Web+Service#FEWSPIRESTWebService-GETlocations		
System - PI Service	FEWS-21781	RWS	FEWS-20398 Enhance PI service timeseries endpoint to support filtering on time series type	filtering on timeseries type supported in pi rest service	filtering on timeseries type supported in pi rest service	https://publicwiki.deltares.nl/display/FEWSDOC/FEWS+PI+REST+Web+Service#FEWSPIRESTWebService-GETtimeseries		
System - PI Service	FEWS-19939	UAE Navy	FEWS-19924 PI Service: retrieve data for a certain X,Y coordinate and datalayer	Get timeseries from grid cell	the PI REST service can now get the timeseries for a grid cell by specifying a x and y position.	https://publicwiki.deltares.nl/display/FEWSDOC/FEWS+PI+REST+Web+Service#FEWSPIRESTWebService-GETtimeseries(ridj+2018.02)		
System - PI Service	FEWS-19926	UAE Navy	FEWS-19924 PI Service: get locations from archive request	archive locations can be requested through the pi rest service	archive locations can be requested through the pi rest service	https://publicwiki.deltares.nl/display/FEWSDOC/FEWS+PI+REST+Web+Service#FEWSPIRESTWebService-GETarchive/locations(2020.01)		
System - PI Service	FEWS-19925	UAE Navy	FEWS-19924 PI Service: get parameters from archive request	archive parameters can be requested through the pi REST service	archive parameters can be requested through the pi REST service	https://publicwiki.deltares.nl/display/FEWSDOC/FEWS+PI+REST+Web+Service#FEWSPIRESTWebService-GETarchive/parameters(2020.01)		
System - PI Service	FEWS-22279	Deltares	FEWS-21828 PI service GeoJSON obsolete	removed deprecated geojson service	Removed deprecated geojson service. This was an undocumented and now unused API.	https://publicwiki.deltares.nl/display/FEWSDOC/FEWS+Web+Services		
System - PI Service	FEWS-22278	Deltares	FEWS-21828 Digitale Delta API V1 obsolete	Digitale Delta API V1 has been removed from code	Digitale Delta API V1 has been removed from code	https://digitaledeltaorg.github.io/dd-apis.html		
System - PI Service	FEWS-18927	Deltares	FEWS-19646 Thinning support in REST service	Thinning support for timeseries in pi service	Thinning is used to retrieve the visually interesting time steps of timeSeries. It tries to keep the peaks and gaps and minimizes the number of time steps that have to be retrieved. It is typically used for visualizations. The value to be specified should be equal to the view period in milliseconds of the timeSeries that is visualized divided by the number of pixels that are available for display. For example: visualizing a view period of 5 years (157784760000 milliseconds) on a display of 1024 pixels, the thinning parameter should be set to 157784760000/1024 = 15408668. (Since 2019.02)	https://publicwiki.deltares.nl/display/FEWSDOC/FEWS+PI+REST+Web+Service#FEWSPIRESTWebService-GETtimeseries		
Water Coach	FEWS-21055	RWS	FEWS-21093 WaterCoach: Export (and import?) results with the right timesteps	WaterCoach – exporting and importing time series with the times that correspond with the time delay configured in the WaterCoach script	Presently the time series with delayed times are exported resp. imported in : - Reports. - TimeSeriesDialog using table popup menu - Save As... - Interactive exporter using menu File -> Export timeseries. Only available if <interactiveExportFormats> are configured in Explorer.xml. - Time series export module - Time series Import module Time delay can be positive or negative (color:#000000)Please note:(color) (color:#000000)GeneralAdapter does not support timeDelay . (color)	https://publicwiki.deltares.nl/display/FEWSDOC/Water+Coach		

Component/s	Key	Customer name	Summary	Release Note Text	Release Note Text Description	Link to Documentation	Config Example	Screenshot/image
Water Coach	FEWS-21053	RWS	FEWS-21093 WaterCoach: Automatically import new forecasts exported from other WC systems	WaterCoach – automatically running workflows configured in the script	<p>(color:#000000)Instead of 'stories' it is possible to configure a list with workflows. These workflows will be launched periodically from the script.(color)</p> <p>(color:#000000)The start of scheduling and scheduling interval can be configured with 'schedulingStart' and 'schedulingInterval'. The interval must be larger than 1 second.(color)[(color:#000000)If we speed up WaterCoach time, the scheduling interval will be speeded up too. (color)</p> <p>(color:#000000)The workflows waiting for the execution are listed in the SystemMonitor, tab Batch Forecasts. Here you can also to cancel the workflows, using the button Stop. See picture SystemMonitorBatchRuns.png(color)</p> <p>(color:#000000) (color)</p>	https://publicwiki.deltares.nl/display/FEWSDOC/Water+Coach	<pre>(code:xml) <title>WaterCoach test script</title> <timeZone> <name>GMT</name> </timeZone> <dataStart date="2019-01-15" time="11:00:00"> <dataStop date="2019-01-15" time="13:00:00"> <displayStart date="2019-01-15" time="11:00:00"> </displayStart> </dataStart> <workflowId>Import</workflowId> <workflowId>Forecast</workflowId> <workflowId>Forecast</workflowId> <workflowId>Forecast</workflowId> </workflow> </workflow> </workflow> </workflow> </workflow> </code></pre>	
Water Coach	FEWS-21052	RWS	FEWS-21093 WaterCoach: Master Water Coach instance writes time file for participants from different systems	WaterCoach Multiple Systems - sharing system time	<p>Multiple systems are WaterCoach instances with different configurations, for example FewesMeren, FewesRivieren and so on. These instances are members of the multiple systems.</p> <p>All members share the same water coach system time. The system time is written by the 'leader' member to a NetCdf file on a shared drive and other members read the time from this file to synchronize their exercises.</p> <p>This shared file can be configured with an element 'multipleSystems' in WaterCoachDisplay.xml</p> <pre>(code:xml) <multipleSystems enabled="true"> <systemTimeFile>n:\WaterCoachTemp\systemTimeFile.nc</systemTimeFile> </multipleSystems> </code></pre> <p>When multipleSystems is enabled, a check box 'Synchronize time with training leader' appears in the WaterCoach display, where the WaterCoach instance can be marked as follower of the training leader (see attached WaterCoach.png) Only one member of the multiple systems can be a training leader</p>	https://publicwiki.deltares.nl/display/EAT7/Application+configuration		
Xml Schemas for Configuration	FEWS-22707	Deltares	Schema checks for 2020.01	XML schemas (XSD) for Delft-FEWS 2020.01 have been validated and reviewed	XML schemas (XSD) for Delft-FEWS 2020.01 have been validated and reviewed			