

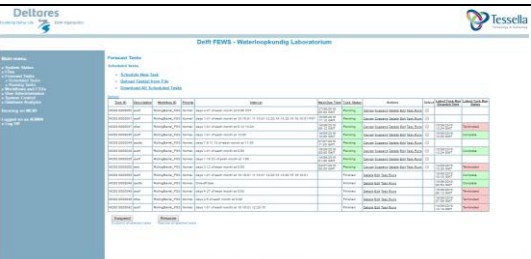
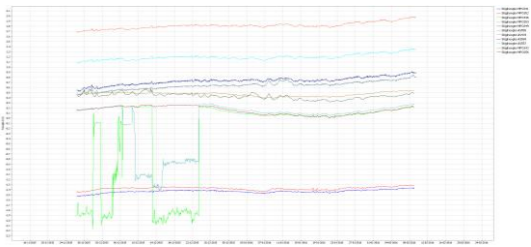
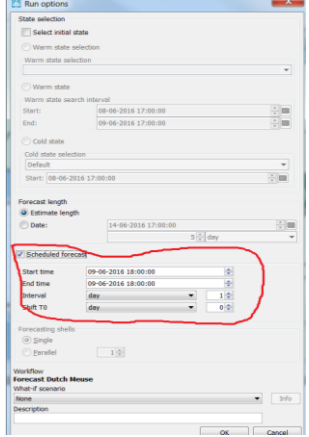
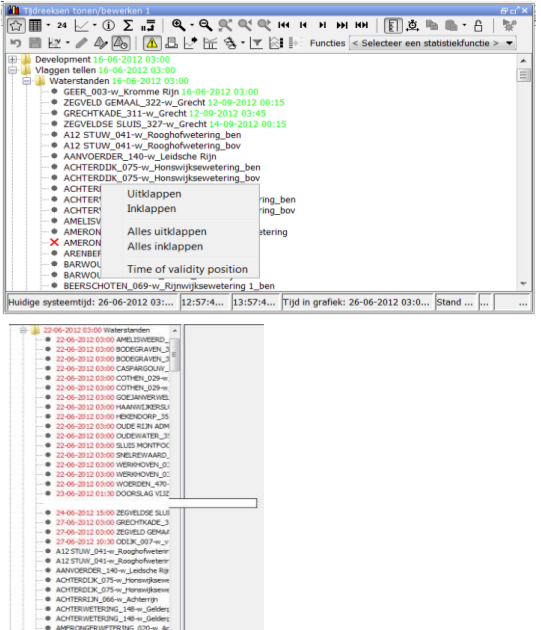
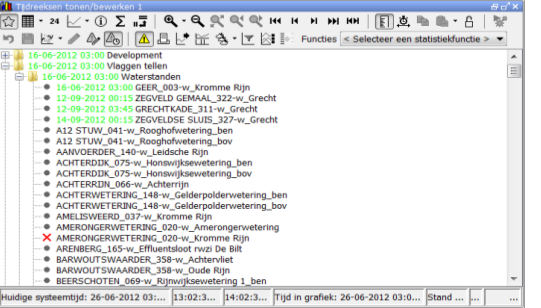
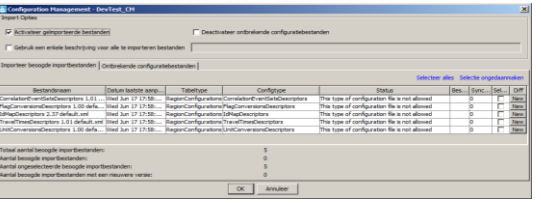
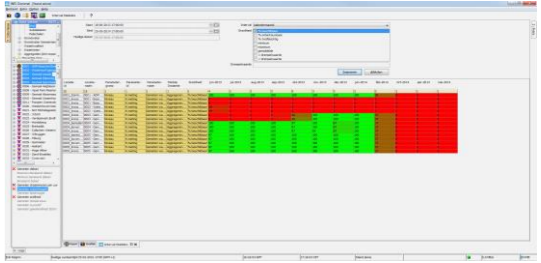


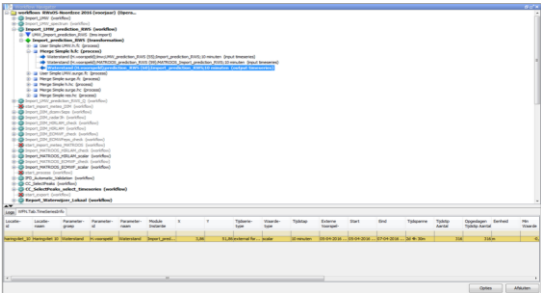
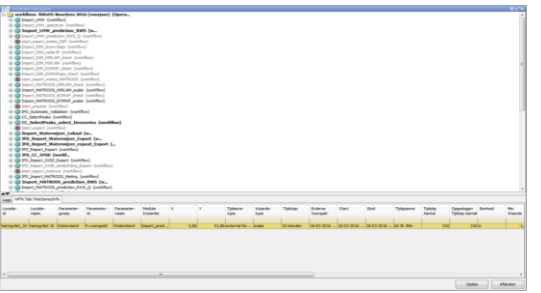
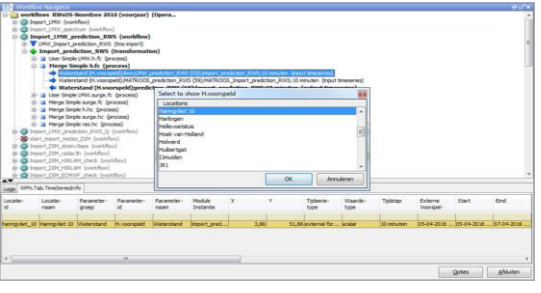
Delft-FEWS 2016.01 - All solved new features								
Issue Type	Key	Component/s	Customer	Summary	Release Note Text	Release Note Text Description	Config Example	Images
Improvement	FEWS-13490	App - Admin Web User Interface	BPA Hermes	Admin Interface: "Overall MC Status" wording misleading				
New Feature as subtask	FEWS-15013	App - Admin Web User Interface	TVA	FEWS-10616 Admin Interface interval option times of day with daylight saving	New repeat mode has been added: "One or more times each day" where one or more times can be configured.	New repeat mode has been added: "One or more times each day" where one or more times can be configured. If this mode is enabled and more than 1 timezone is configured in the fews.master.mc.conf a dropdown list will be displayed where a timezone can be chosen (with GMT as default). This option is also available for repeat mode "One or more days each month".		
New Feature as subtask	FEWS-13513	App - Admin Web User Interface	TVA	FEWS-10616 TVA: Ability to choose fields in the forecasts tasks page of the Admin Interface	The Admin Interface will hide columns if no data is available (What-If Scenario, Tag, Remote MC)	The Admin Interface will hide the following columns if no data is available: What-If Scenario Tag Remote MC		
Improvement as subtask	FEWS-13714	App - Admin Web User Interface	TVA	FEWS-10616 TVA. make scheduling of workflow time zone aware for local daylight saving switches	Timezone can be configured and used in AI for option "one or more days each month" in Schedule New Task form	New repeat mode has been added: "One or more times each day" where one or more times can be configured. If this mode is enabled and more than 1 timezone is configured in the fews.master.mc.conf a dropdown list will be displayed where a timezone can be chosen (with GMT as default). This option is also available for repeat mode "One or more days each month".	select the appropriate timezone options from timeZoneEnumStringType in sharedTypes.xsd, i.e. ACST, ACT, AEST, AET, AGT, AST, AWT, AZT, BET, BST, CAT, CET, CNT, CST, EAT, EET, EST, GMT, HST, IET, IST, JST, MET, MIT, MST, NET, NST, PLT, PNT, PRC, PRT, PST, ROK, SST, VST, WET and add as follows to fews.master.mc.conf (code:xml) <?xml version="1.0" encoding="UTF-8"?> <fews-master-config mcid="MC00"> ... <ai> ... <timezone>GMT</timezone> <timezone>CST</timezone> <timezone>PST</timezone> </ai> ... </fews-master-config> (code)	
Improvement as subtask	FEWS-13510	App - Admin Web User Interface	TVA	FEWS-10616 TVA; Page on AI that includes only the status and dispatch time of the latest task run for each scheduled workflow.	Latest task run dispatch time and status added as columns in admin interface	Latest task run dispatch time and status added as extra columns in admin interface. The status column will contain the status of the last run task and will have the same color as the taskrun.		
Improvement	FEWS-13973	App - Archive, Plugin - Module - Archive	Deltares	Add task to remove orphan records in geonetwork	Archive: Task added to remove orphans in Geonetwork	Archive: Task added to remove orphans in Geonetwork		
Improvement	FEWS-15121	App - Archive	SWITCH-ON / EU Project	SWITCH-ON: In geonetwork harvester retrieve keywords and spatial extent from netcdf				
New Feature	FEWS-14301	App - Configuration Manager Gui	Deltares	ConfigManager: add *.nc file upload in MapLayerFiles	Config manager supports *.nc files for MapLayerFiles	Config manager supports *.nc files in de MapLayerFiles directory.		
Improvement as subtask	FEWS-14923	App - Data Conversion Module	Nelen & Schuurmans	FEWS-9766 NS Aanpassing aan de DCM		Deletion of localdata store is now configurable. Added optional configuration element: clearOnStartup. Defaults to true.	(code) <?xml version="1.0" encoding="UTF-8"?> <dataConversion xmlns="http://www.widelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.widelft.nl/fews file:/dataconversion.xsd"> <clearOnStartup>false</clearOnStartup> <activities> <!-- End test config --> <workflowActivity > <workflowId>ImportExportPi</workflowId> </workflowActivity> </activities> </dataConversion> (code)	
Improvement	FEWS-14365	App - Delft-FEWS	CO FIAG - Colombia (project)	Additional translations for Spanish	For several components Spanish translations have been added.			
New Feature	FEWS-14643	App - Delft-FEWS	Deltares	Remove Vislamo.jar from FEWS code	Unused Vislamo.jar cleaned up from code			

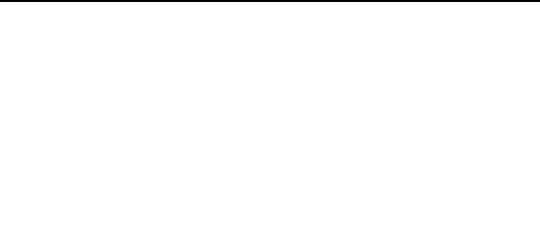
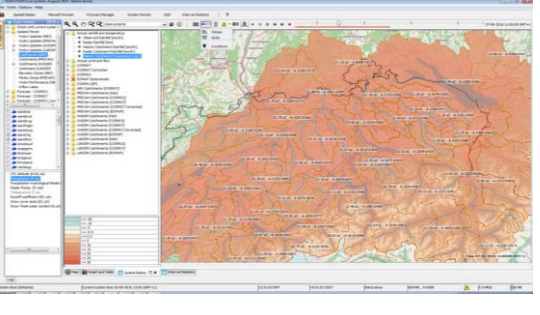

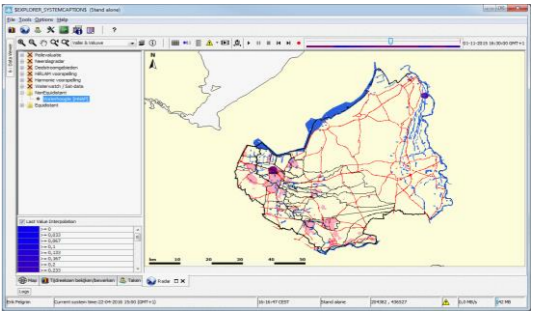
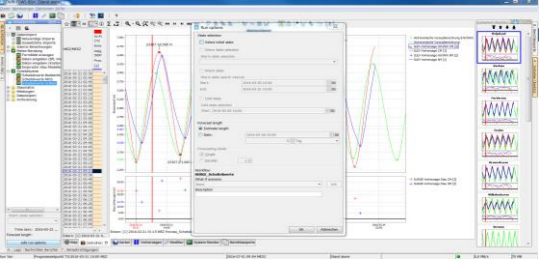
Delft-FEWS 2016.01 - All solved new features							
Improvement	FEWS-14622	App - Delft-FEWS	FEWS-HIC (Belgium)	WaterML2 server proxy settings added as properties	WaterML2 server proxy settings added as properties		<pre>(code:xml) <string key="proxyUrl" value="proxy.vlaanderen.be"/> <int key="proxyPort" value="8080" /> (code)</pre>
New Feature	FEWS-14375	App - Delft-FEWS	Nelen & Schuurmans	New export to write data via APIv2 to DDSC database	DDSC Export for timeseries and DAM live images	DDSC Export can export FEWS timeseries to the DDSC REST API and DAM live images. For documentation, see: https://publicwiki.deltares.nl/display/FEWSDOC/DDSC+Export	<pre>(code) <?xml version="1.0" encoding="UTF-8"?> <timeSeriesExportRun xmlns="http://www.wldelft.nl/feWS" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.wldelft.nl/feWS http://feWS.wldelft.nl/schemas/version1.0/timeSeriesExportRun.xsd"> <export> <general> <exportType>DdscExport</exportType> <serverUrl>https://api.ddsc.nl/api/v2/timeseries/</serverUrl> <user>ddsc_user</user> <password>ddsc_password</password> <unitConversionsId>ImportUnitConversions</unitConversionsId> </general> <properties> <!-- -map parameter,location combinations to unique timeseries uuid's of ddsc --> <string key="Q.observed,28_0" value="f9295f20-de55-40d4-a356- 61f6f142a36f"/> </properties> <timeSeriesSet> <moduleInstanceld>ImportDDSC</moduleInstanceld> <valueType>scalar</valueType> <parameterId>Q.observed</parameterId> <locationId>28_0</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="nonequidistant"/> <relativeViewPeriod unit="day" start="-300" end="0" startOverrutable="true" endOverrutable="false"/> <readWriteMode>add originals</readWriteMode> <synchLevel>1</synchLevel> </timeSeriesSet></pre> 
Improvement	FEWS-14115	App - Forecasting Shell Server	Deltares	Improve MCPProxy config so that ForecastingShell does not write dump files in bin dir and overrides forelast dump file	Frequent crashes in FSS will no longer pollute the bin dir and no longer fill the disks with java heap dump files.	The forecasting shell configuration file <code>feWS.master.mcproxy.conf</code> produced by the configurator now has been improved so that whenever a forecasting shell task crashes frequently the heap dump file will be generated in the region home dir instead of the bin directory. Using the new config the forelast dump file is overwritten instead of a new one being generated on every occurrence. This prevents the disk being written full. Note that as part of the migration to a new Delft-FEWS version, it is recommended to always rerun the configurator and review differences in the output of the configurator output files with existing configurator output files (<code>feWS.master.mc.conf</code> , <code>feWS.master.mcproxy.conf</code> , etc.).	<pre>Windows (code) <jvm path="d:/opt/jre/bin/java"> <arg id="0" value="-Xmx1024M"/> <arg id="1" value="- XX:HeapDumpPath=@ @FSS_REGION_HOME @ @/javaHeapDump.tx t"/> <arg id="2" value="- XX:ErrorFile=@ @FSS_REGION_HOME @ @/%p_javaErrorFile.txt"/> </jvm> Linux (code) <jvm path="/opt/jre/bin/java"> <arg id="0" value="-Xmx1024M"/> <arg id="1" value="-Djava.library.path=@ @FSS_BIN_PATH @ @"/> <arg id="2" value="-Djava.awt.headless=true"/> <arg id="3" value="- XX:HeapDumpPath=@ @FSS_REGION_HOME @ @/javaHeapDump.tx t"/> <arg id="4" value="- XX:ErrorFile=@ @FSS_REGION_HOME @ @/%p_javaErrorFile.txt"/> </jvm></pre>
Improvement	FEWS-10291	App - Forecasting Shell Server	Deltares	Automatically compact cache files on FSS	FSS cache files are automatically compacted	FSS Compact cache files is started automatically when not performed in the last 25 hours. Warn is logged that Compact cache files is not been scheduled properly.	
Improvement	FEWS-13287	App - Forecasting Shell Server	Deltares	Prevent FSS to start up when a config error is detected	FSS does not start when a config error has been detected		
Improvement	FEWS-14841	App - Master Controller Server	Deltares	Remove *.vbs script from collectedlogfiles.zip as the zip will be blocked by almost all mailservers as possible spam	CollectedLogFiles no longer includes files with extensions (sh/bat/cmd/vbs, etc.) that are often blocked by mail servers.		
Improvement as subtask	FEWS-13673	App - Master Controller Server	NWS	FEWS-13262 NWS: FB1856 Remove Global Writeable Permission Bit from FEWS Generated Files	Global writable permission bit removed from Delft-FEWS output files	Linux. The permission "writable for all users" is no longer set for newly created files. Use the linux <code>UMASK</code> command to control the permissions of newly created files instead. If this is not possible the old behavior can be re-enabled with the <code>-DmakeNewlyCreatedFileReadableAndWritableForAllUsers=true</code> in <code>ini/pif/mcproxy</code>	
New Feature as subtask	FEWS-14760	App - Operator Client Gui (Explorer)	BSH	FEWS-14471 New Display Component: Embedded HTML Viewer (p3)	Forecaster Aid HTML documents uses new HTML 5 componen (Web Browser Display)	The Forecaster Aid display will now use the Web Browser Display component that is able to display HTML 5 content. See also: https://publicwiki.deltares.nl/display/FEWSDOC/24.+Web+Browser+Display	No config changes required.


Delft-FEWS 2016.01 - All solved new features							
New Feature	FEWS-13813	App - Operator Client Gui (Explorer)	GO-FEWS (Selection of Dutch Waterboards)	TimeSeriesStatusSnapshot: StatusIcon Information read from (new) binary file			<pre>(code:xml) explorer version="1.1" xmlns="http://www.wdelft.nl/feWS" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.wdelft.nl/feWS http://feWS.wdelft.nl/schemas/version1.0/explorer.xsd"> <systemInformation> <description>WIS database</description> <systemCaption>\${EXPLORER_SYSTEMCAPTION}</systemCaption> </systemInformation> <timeSeriesStatus>remotely updated snapshot</timeSeriesStatus> (code) (code:xml) <workflow version="1.1" xmlns="http://www.wdelft.nl/feWS" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.wdelft.nl/feWS http://feWS.wdelft.nl/schemas/version1.0/workflow.xsd"> <activity> <predefinedActivity>time series status snap shot update</predefinedActivity> </activity> </workflow></pre>
New Feature as subtask	FEWS-13854	App - Operator Client Gui (Explorer)	TVA	FEWS-10616 TVA: make start time or execution time of a run adjustable in the OC in the IFD run options	Extend IFD run options: make start/execution time of a run adjustable		
New Feature as subtask	FEWS-13908	App - Operator Client Gui (Explorer)	TVA	FEWS-10616 TVA: ability to select non-qualifier timeseries in qualifier list box in Filters	Ability to select non-qualifier timeseries in qualifier list box in Filters		
Improvement as subtask	FEWS-13938	App - Operator Client Gui (Explorer), Plugin - GUI - Sample Viewer	Waternet	FEWS-13016 make sample data editable	Sample data is now editable		<pre>(code:xml) <filter id="Hydrobiologie"> <relativeViewPeriod start="-100000" end="0" unit="day"/> <editable>true</editable> <locationConstraints> <idStartsWith prefix=""/> </locationConstraints> <parameterConstraints> <idStartsWith prefix=""/> </parameterConstraints> <qualifierConstraints> <idStartsWith prefix=""/> </qualifierConstraints></pre>
Improvement as subtask	FEWS-13937	App - Operator Client Gui (Explorer)	Waternet	FEWS-13016 option to select 'empty' qualifiers by introducing an automatisch generated 'none of group' Qualifier	Option to select 'empty' qualifier in the qualifiers tree		
Improvement as subtask	FEWS-14202	Configuration	BC Hydro	FEWS-11235 Update historical years in ESP ensemble when running hindcast run	Hindcast run ensemble members will be counted correctly		
Improvement as subtask	FEWS-14155	Configuration	TVA	FEWS-10616 EnsembleMemberId should be available to configure in IdMap schema and be returned in webservices	PI Service extended for returning ensemble memberId		

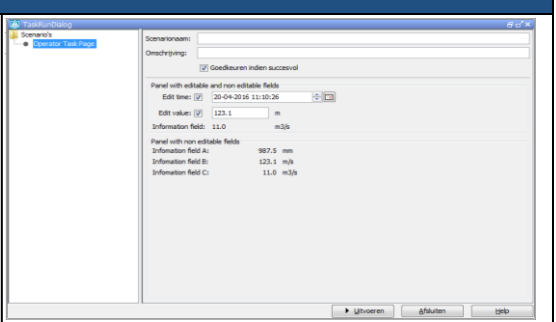
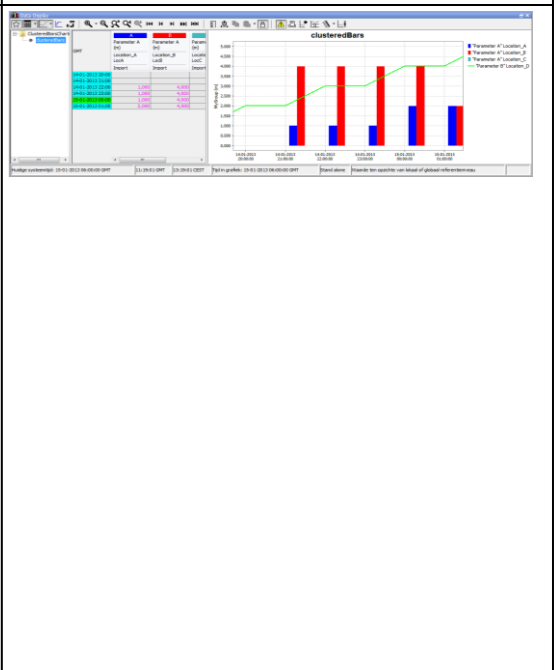
Delft-FEWS 2016.01 - All solved new features							
New Feature as subtask	FEWS-14533	Configuration	TVA	FEWS-10616 optional config to use external/simulated forecasts after T0	Optional configuration to use external/simulated forecasts after T0		
New Feature as subtask	FEWS-14087	Configuration - ValidationStatus	HDSR	FEWS-14084 Extend schema flagSourceColumns to set 'timeOfValidityColumn'	flagSourceColumns schema extended to set 'timeOfValidityColumn'		<pre>(code:xml) <?xml version="1.0" encoding="UTF-8"?> <flagSourceColumns 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/flagSourceColumns.xsd"> <column id="A"> <storageKey>0</storageKey> <editable>true</editable> </column> <column id="DuplicateStorageKey"> <storageKey>0</storageKey> </column> <column id="B"> <storageKey>1</storageKey> <editable>true</editable> </column> <column id="B"> <storageKey>5</storageKey> </column> <timeOfValidity> <columnId>A</columnId> <defaultFlagSource>HX</defaultFlagSource> </timeOfValidity> </flagSourceColumns> (code)</pre>
New Feature as subtask	FEWS-14593	Configuration - ValidationStatus	HDSR	FEWS-14084 Tv text in display node in front of/behind display node text	Time of Validity indicator is shown in front of or behind display node text on request		
New Feature as subtask	FEWS-14589	Configuration - ValidationStatus	HDSR	FEWS-14084 Tv text in display node tree in color	Time of Validity indicator can be shown in configured color (default: black).		

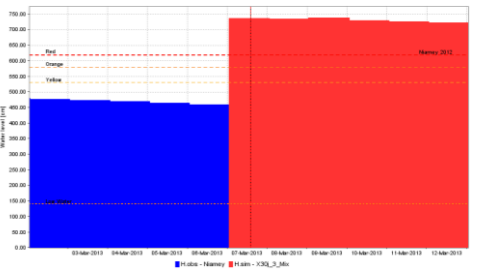
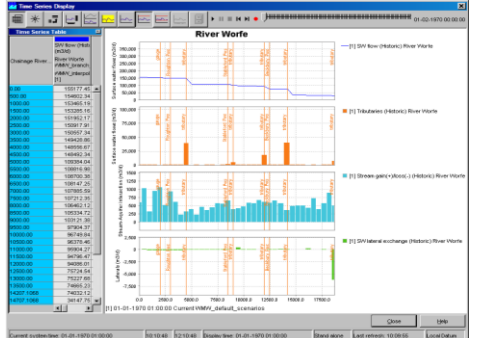

Delft-FEWS 2016.01 - All solved new features								
New Feature as subtask	FEWS-15266	Database	BoM	FEWS-13888 Implement new projection AlbersEqualArea			<pre>(code:xml) <regular locationId="Albers"> <description>albers_conical_equal_area</description> <rows>2050</rows> <columns>2450</columns> <albersEqualArea> <originLatitude>0.0</originLatitude> <originLongitude>132.0</originLongitude> <standardParallel1>-18.0</standardParallel1> <standardParallel2>-36.0</standardParallel2> <equatorRadius>6378137.0</equatorRadius> <poleRadius>6356752.314897855</poleRadius> </albersEqualArea> <gridCorners> <geoDatum>WGS 1984</geoDatum> <upperLeft> <x>111.83004950189446</x> <y>-7.839353023956925</y> <z>0.0</z> </upperLeft> <lowerRight> <x>163.4217934500955</x> <y>-43.72730966375134</y> <z>0.0</z> </pre>	
Improvement	FEWS-14489	Database	Deltares	Remove obsolete descriptor config files for idMap/unitConversion/flagconversion/correlationevent/traveltime	Several *descriptors.xml files are no longer supported	The following *descriptors.xml files are no longer supported. IdMapDescriptors.xml UnitConversionsDescriptors.xml FlagConversionsDescriptors.xml CorrelationEventSetsDescriptors.xml TravelTimesDescriptors.xml	<pre>please remove IdMapDescriptors.xml, UnitConversionsDescriptors.xml, FlagConversionsDescriptors.xml, CorrelationEventSetsDescriptors.xml, TravelTimesDescriptors.xml from the RegionConfig. These configfiles are obsolete from 2016.01 onwards.</pre>	
New Feature	FEWS-10281	Database	Deltares	database maintenance improvement				
New Feature	FEWS-12516	Database	Deltares	Create a database clock mechanism.	Database clock mechanism created for properly synchronising components			
New Feature as subtask	FEWS-14500	Database, System	Deltares	FEWS-14498 replicate function: msaccess and firebird to derby				
New Feature as subtask	FEWS-14525	Database, System	Deltares	FEWS-14498 Derby vs Firebird performance research				
New Feature as subtask	FEWS-13173	Database	GO-FEWS (Selection of Dutch Waterboards)	FEWS-12915 Calculating aggregation periods	Datstore extended to read data in any aggregated interval	See FEWS-13174		
New Feature as subtask	FEWS-14105	Database	HDSR	FEWS-14084 Add column in database lister showing the Tv for each timeseries	Column added in database lister showing the Time of Validity for each timeseries			
Improvement as subtask	FEWS-14988	Database	HKV, HDSR, Deltares	FEWS-14986 Datstore: trim external historical missings when overwriting missings				
Improvement as subtask	FEWS-11064	Debug Tool - Database Viewer	GO-FEWS (Selection of Dutch Waterboards)	FEWS-11062 Additional display that shows a table with selected statistics per interval	Additional display in Database Viewer added for showing results for aggregation intervals		<pre><explorerTask name="Interval Statistics"> <predefinedDisplay>interval statistics</predefinedDisplay> <toolbarTask>true</toolbarTask> <menubarTask>true</menubarTask> <loadAtStartup>true</loadAtStartup> </explorerTask></pre>	
Improvement as subtask	FEWS-14989	Debug Tool - Database Viewer	HKV, HDSR, Deltares	FEWS-14986 Databaseviewer: improve visualisation of 'data time span' of a workflow	Database viewer extended with improved visualisation of 'data time span' written by a workflow			

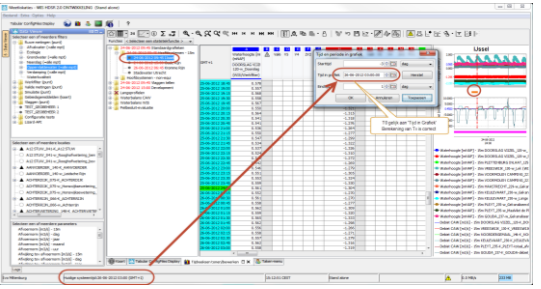
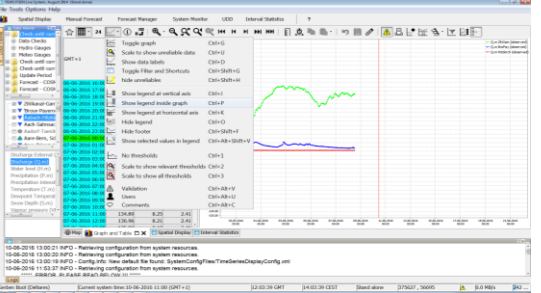
Delft-FEWS 2016.01 - All solved new features							
New Feature as subtask	FEWS-14575	Debug Tool - Workflow Navigator	GO-FEWS (Selection of Dutch Waterboards)	FEWS-13005 Highlighting in WFN van de in de TSD geselecteerde tijdserie	Selecting time series in TSD and highlighting them in WFN	<p>If the WFN is not open yet, open it first. If you have configured WFN as Explorer task , open it from Tool bar or Menu bar, or with Explorer F12 -> K Open Workflow Navigator .</p> <p>In TSD select one or more time series and choose an option "Highlight in Workflow Navigator" (Ctrl+W) from the popup menu of the time series table.</p> <p>All WFN nodes which contain the selected time series are highlighted (bold), all nodes where the time series location(s) is also present are shown in normal (black) font and all places where the house nor the location appear are greyed out.</p> <p>WFN also shows a "Time Series Info" panel in which the information of the selected time series is displayed. This Time Series Info panel is similar to the panel that appears in TSD after selection of the 'i' button (Time series lister)</p>	
New Feature as subtask	FEWS-14576	Debug Tool - Workflow Navigator	GO-FEWS (Selection of Dutch Waterboards)	FEWS-13005 Het selecteren en navigeren in de WFN	<p>Navigating between highlighted nodes in WFN</p> <p>The user can switch between the highlighted nodes with the key combination Ctrl + Arrow.</p> <p>Use Ctrl + Arrow Down to move to the next highlighted node, and Ctrl + Arrow Up to move to the previous highlighted node</p> <p>----- NL ----- De gebruiker kan tussen de gehyghlighte nodes met toetsencombinatie Ctrl+pijltes switchen. Gebruik Ctrl+Down om naar de volgende gehyghlighte node te gaan, en Ctrl+Up om naar de voorgaande gehyghlighte node te gaan</p>		
New Feature as subtask	FEWS-14577	Debug Tool - Workflow Navigator	GO-FEWS (Selection of Dutch Waterboards)	FEWS-13005 Het openen van 'gerelateerde' tijdseries in TSD	<p>Adding time series selected in WFN to the plots in TSD</p> <p>To show time series in TSD, select first one or more input and/or output time series nodes in WFN.</p> <p>Then use the right mouse button to open the pop-up menu and choose the option 'Add time series to Plots'. Or use a shortcut Ctrl + Shift + 7. A popup window will appear, where the locations can be selected. De selected parameters are shown in the window title. Also a module list may appear if the selected time series contain multiple modules.</p> <p>If any selected time series nodes are highlighted (bold), then the associated locations will be automatically preselected in the popup window.</p> <p>To show time series in TSD, we can also select a module node or workflow node in WFN. This is convenient if we want to see all timeseries for a particular location that has been used in a workflow or module. For example all input and output time series used in a transformation module.</p> <p>Note that menu option 'Add time series to Plots' adds time series to all unlocked plots. To avoid this, use button "Lock selection" in the TSD.</p> <p>We can also display selected time series in a separate TSD, using option 'Filter a show time series' (Ctrl + 7). In this case, a separate undocked TSD will be opened.</p>		
New Feature as subtask	FEWS-10735	Module Adapter - All	RWS (NL)	FEWS-10734 Adapter HydraZoet database			

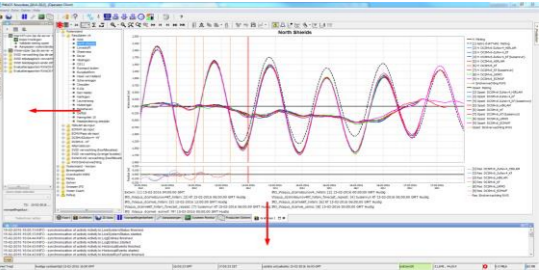
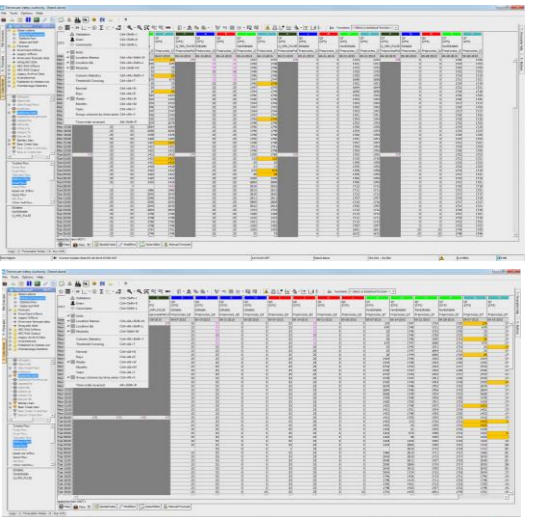
Delft-FEWS 2016.01 - All solved new features							
Improvement as subtask	FEWS-14646	Module Adapter - DFlow-FM	Deltares (research)	FEWS-15231 Improvement for multiple state file handling	FEWS D-Flow FM adapter now supports models with domain decomposition	DFlowFMPreAdapter: Added new property model_id, so that the adapter can search for the relevant restart files in the list of inputStateFiles in the netcdf run file. This is needed for domain decomposition and when running multiple adapters for multiple modules/models with the same netcdf run file. Property mdu_file is now deprecated (gives warning when used). See documentation on wiki page https://publicwiki.deltares.nl/display/FEWSDOC/D-Flow+FM+adapter	
New Feature as subtask	FEWS-14664	Plugin - Gui - Grid Display	BC Hydro	FEWS-11235 Ability to show location names in Spatial Display	Added dropdown to label button in grid display. Drop down items give the possibility to show value and/or location in the labels		
Improvement as subtask	FEWS-14775	Plugin - Gui - Grid Display	BPA Streamflow	FEWS-12430 remove unit from spatial display label	In grid display added new option to switch the units in the labels on/off.	In grid display added new option "Units" to the drop down menu of the label button. This can be used to switch the units in the labels on/off. Note that the units can only be shown if the values in the labels are also shown. If the values in the labels are switched off, then the option "Units" will be invisible.	
Improvement as subtask	FEWS-14881	Plugin - Gui - Grid Display	Deltares (research)	FEWS-15231 Improve performance of UGRID visualisation in spatial display	Memory reduction achieved (96.5%) for UGRID visualisation		
Improvement	FEWS-14439	Plugin - Gui - Grid Display	Waterboard Vallei & Veluwe	WS Vallei en Veluwe: Spatial Display should support nonequidistant scalar values (Show last non-equi value before or at slider time)	Option added to Grid Display to extend the last value of a non-equidistant timeseries		
New Feature as subtask	FEWS-13022	Plugin - GUI - IFD - Dataviewer	Waternet	FEWS-13016 Filter-buttons to optionally show locations/parameters/qualifiers	Context menu options for showing locations/parameters/qualifiers added to Filters		
New Feature as subtask	FEWS-15390	Plugin - GUI - IFD - Forecasts	BSH	FEWS-14471 Disable: Edit run options			
New Feature as subtask	FEWS-14640	Plugin - GUI - IFD - Forecasts	TVA	FEWS-10616 Open wiki pages (html links) from nodes using right-mouse option	Web Browser Display shows HTML content configured with URLs in the Topology.xml	The new Web Browser Display component shows HTML content configured with urls in the Topology.xml. For documentation, see: https://publicwiki.deltares.nl/display/FEWSDOC/24.+Web+Browser+Display	


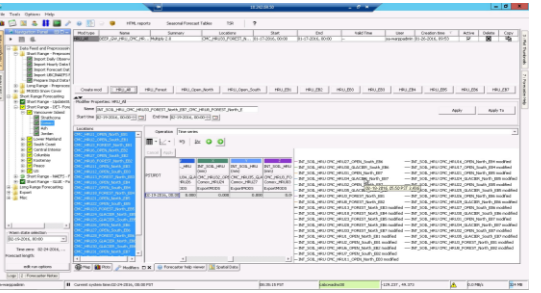
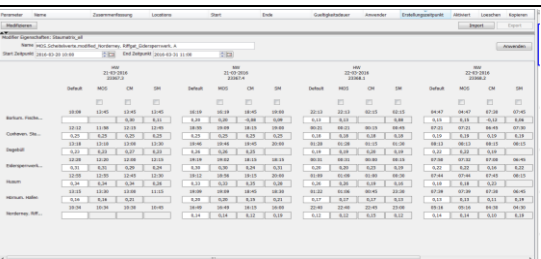
New Feature as subtask	FEWS-13585	Plugin - Gui - Longitudinal Profiles	TVA	FEWS-10616 TVA: Add "miles" as a valid display unit for river chainage for longitudinal profile plots	Added 'Miles' as valid unit for longitudinal profile & chainage parameter	<p>To specify the chainage unit, configure element chainageParameterId in Parameter.xml. By means of this chainageParameterId we refer to the chainage parameter from certain parameter group. The unit of this group is then the chainage unit. Configure displayUnit to convert to any other unit. The name of the chainage parameter and (display)unit are shown in longitudinal profile plots in the title of the chainage axis.</p> <p>The element chainageUnit in TimeSeriesDisplay.xml is deprecated and should be removed from TimeSeriesDisplay.xml</p>	<p>Example from Parameters.xml :</p> <pre>{code:xml} <chainageParameterId>Chainage</chainageParameterId> <parameterGroup id="ProfileChainage"> <parameterType>instantaneous</parameterType> <unit>m</unit> <displayUnit>km</displayUnit> <parameter id="Chainage" name="Chainage"> <shortName>Chainage</shortName> </parameter> </parameterGroup> {code}</pre>	
Improvement as subtask	FEWS-13978	Plugin - Gui - Schematic Status Display	TVA	FEWS-10616 improve SSD with Sankey features	Schematic Status Display support for linkPropertiesToData width and anchor="center"	<p>Implemented linkPropertiesToData for width as well. Anchor points are supported for "left", "right" and "center". The linkPropertiesToData height anchor point now supports "center as well".</p> <p>For documentation see: https://publicwiki.deltares.nl/pages/viewpage.action?pageId=8684020#id-15SchematicStatusDisplay(formerlyScadaDisplay)-LinkPropertiesToDataConfigurationOptions</p>	<pre>{code} <shapeComponentBehaviourDefinition> <svgObjectId>outflow_boone</svgObjectId> <linkPropertiesToData> <width> <variableId>QI</variableId> </variable> <locationId>BOOT1</locationId> </variable> <dataLowerLimit>0</dataLowerLimit> <dataUpperLimit>2000</dataUpperLimit> <widthLowerLimit>0</widthLowerLimit> <widthUpperLimit>40</widthUpperLimit> <anchorPoint>center</anchorPoint> </width> </linkPropertiesToData> </shapeComponentBehaviourDefinition> {code}</pre>	
Improvement	FEWS-15209	Plugin - Gui - System Monitor	Deltares	workflow column is missing in log tab of system monitor				
Improvement	FEWS-13944	Plugin - Gui - System Monitor, Plugin - Module - Reports	Office of Public Works, Ireland	Report function LOGENTRY – add additional fields to be included in html report	Report function LOGENTRY extensions	<p>Function LOGENTRY provides by default a message from the most recent manual logging entry with the specified event code.</p> <p>To get an another field from the logging entry, a second argument can be used that specified the required field. For example LOGENTRY(Dam.info;userId) returns userId stored in logging entry with event code Dam.info. If the configured field is a date/time field, then date/time format should be used as the third argument. For example LOGENTRY(Dam.info;logCreationTime;dateFormat1) All supported field names are listed in the config example.</p>	<pre>{code:xml} <!DOCTYPE html> <html> <body> Default : \$LOGENTRY(Dam.info)\$
 logEntryId: \$LOGENTRY(Dam.info;logEntryId)\$
 taskRunId: \$LOGENTRY(Dam.info;taskRunId)\$
 moduleInstanceId: \$LOGENTRY(Dam.info;moduleInstanceId)\$
 logType: \$LOGENTRY(Dam.info;logType)\$
 logCreationTime: \$LOGENTRY(Dam.info;logCreationTime;dateFormat1)\$
 logLevel: \$LOGENTRY(Dam.info;logLevel)\$
 eventCode: \$LOGENTRY(Dam.info;eventCode)\$
 eventAcknowledged: \$LOGENTRY(Dam.info;eventAcknowledged)\$</pre>	

New Feature as subtask	FEWS-14729	Plugin - Gui - TaskRunDialog	RWS (NL)	FEWS-9556 RWSOS-Meren: Dynamische informatie in Taskrundialog	TaskRunDialog: non editable fields in OperatorTask to display additional information	<p>In addition to the elements 'timeEdit ' and 'valueEdit' also an element 'valueNonEditable' can be configured to show a value in a non editable field. The first time series value from the configured defaultTimeSeriesSet is shown.</p> <p>TaskRunDialogWithNonEditableFields.xml and png files show an example.</p>		
Improvement as subtask	FEWS-14606	Plugin - Gui - Time Series	BC Hydro	FEWS-11235 SWE-elevation display needs to be able to show monthly values only	Monthly timestep possible in elevation graphs			
New Feature as subtask	FEWS-11236	Plugin - Gui - Time Series	BC Hydro	FEWS-11235 BCHydro: bars in graph at same time next to each other instead of on top	TimeSeriesDisplay - Clustered bars chart		<p>Example from DisplayGroups.xml</p> <pre> ===== <code>xml </code> <display name="clusteredBars"> <subplot> <clusteredBars axis="left"> <bar> <color>blue</color> <visibleInLegend>false</visibleInLegend> <timeSeriesSet> <moduleInstanceld>Import</moduleInstanceld> <valueType>scalar</valueType> <parameterId>Q.m</parameterId> <locationId>LocA</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="hour"/> <relativeViewPeriod unit="hour" start="-12" end="12"/> <readWriteMode>read only</readWriteMode> </timeSeriesSet> </bar> <bar> <color>red</color> <label>Rated Discharge</label> <timeSeriesSet> <moduleInstanceld>Import</moduleInstanceld> <valueType>scalar</valueType> <parameterId>Q.rated</parameterId> <locationId>LocA</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="hour"/> <relativeViewPeriod unit="hour" start="-12" end="12"/> </timeSeriesSet> </bar> </clusteredBars> </subplot> </display> ===== </pre>	
Improvement as subtask	FEWS-14204	Plugin - Gui - Time Series	BC Hydro	FEWS-11235 option to show nr of recent forecasts in plot, with limitation on nr of forecasts per interval				
Improvement as subtask	FEWS-13308	Plugin - Gui - Time Series	BPA Hermes	FEWS-10053 horizontal gridlines should meet scaleUnit and precision				

Delft-FEWS 2016.01 - All solved new features								
Improvement	FEWS-13929	Plugin - Gui - Time Series, Plugin - Module - Reports	FEWS Niger	margin of bar chart should be configurable	TimeSeriesDisplay chart - configurable bar margin	Use option 'barMarginPercentage' to create space between the bars in the charts. 'barMarginPercentage' is a percentage of the bar width by which the bar width should be reduced.	Example from TimeSeriesDisplayConfig.xml : {code:xml} <generalDisplayConfig> <barMarginPercentage>50</barMarginPercentage> </generalDisplayConfig>	 
New Feature as subtask	FEWS-14784	Plugin - Gui - Time Series	FOEN	FEWS-9563 Function for selected time series in graph	Option to show a new statistical timeseries of the available timeseries in a plot	This option add a new timeseries to a plot which is the result of a statistical operation based the available timeseries in that plot. It will be filtered per parameter. E.g. if you have 4 waterlevel timeseries of 4 different gauges and you select the MAX statisticType, a new timeseries with the maximum value (per timestep) of those 4 gauges will be plotted.	TimeSeriesdisplayConfig.xml: {code:xml} <statisticalFunctions> <combinedTimeSeriesStatisticalFunction> <statisticType>MAX</statisticType> </combinedTimeSeriesStatisticalFunction> <combinedTimeSeriesStatisticalFunction> <statisticType>WEIGHTED_AVERAGE</statisticType> <weightAttributeId>AREA</weightAttributeId> </combinedTimeSeriesStatisticalFunction> <combinedTimeSeriesStatisticalFunction> <statisticType>SUM</statisticType> </combinedTimeSeriesStatisticalFunction> </statisticFunctionGroups> {code}	
New Feature as subtask	FEWS-14099	Plugin - Gui - Time Series	HDSR	FEWS-14084 Add Tv to time series display as a vertical line	Time of validity marker is displayed if configured in timeSeriesDisplayConfig	time of validity marker is displayed if configured in timeSeriesDisplayConfig. If the timeOfValidity button has been activated, the marker is shown.		
New Feature as subtask	FEWS-14095	Plugin - Gui - Time Series	HDSR	FEWS-14084 Extend TimeseriesDisplayConfig schema with 'timeOfValidityDefaultViewPeriod' element	The viewer uses timeOfValidityDefaultViewPeriod referenced to Tv	The viewer uses timeOfValidityDefaultViewPeriod referenced to Tv.		

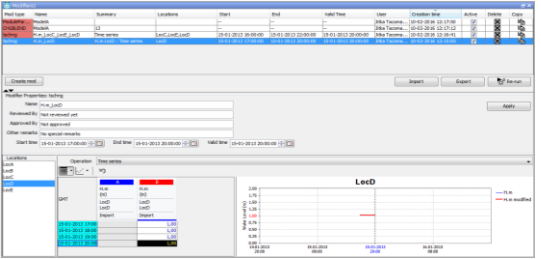
Delft-FEWS 2016.01 - All solved new features							
New Feature as subtask	FEWS-14090	Plugin - Gui - Time Series	HDSR	FEWS-14084 Calculate (combined) Time of Validity for all timeseries in a displaynode			
New Feature as subtask	FEWS-14093	Plugin - Gui - Time Series	HDSR	FEWS-14084 Dynamically order the display nodes based on Tv	nodes are sorted by validity date	nodes are sorted by validity date. TV is displayed before the node name.	<ul style="list-style-type: none"> Alle meetpunten 14-09-2015 13:00 <ul style="list-style-type: none"> Gebied 1 14-09-2015 13:00 <ul style="list-style-type: none"> Meetpunt B 14-09-2015 13:00 Meetpunt A 15-09-2015 14:00 Gebied 2 16-09-2015 13:00 <ul style="list-style-type: none"> Meetpunt D 16-09-2015 13:00 Meetpunt C 17-09-2015 14:00 Meetpunt E 17-09-2015 15:00
New Feature as subtask	FEWS-14092	Plugin - Gui - Time Series	HDSR	FEWS-14084 Show Tv in display node tree	time of validity is displayed.	time of validity is displayed.	<ul style="list-style-type: none"> Meetpunt D 16-09-2015 13:00 Meetpunt C 17-09-2015 14:00 Meetpunt E 17-09-2015 15:00
New Feature as subtask	FEWS-14091	Plugin - Gui - Time Series	HDSR	FEWS-14084 Extend TimeseriesDisplayConfig schema with 'timeOfValiditySearchPeriod' element			
New Feature as subtask	FEWS-14096	Plugin - Gui - Time Series	HDSR	FEWS-14084 When Tv button is selected the TSD should be in 'edit mode'	pressing tv button will activate edit mode as well.	pressing tv button will activate edit mode as well.	
New Feature as subtask	FEWS-14104	Plugin - Gui - Time Series	HDSR	FEWS-14084 Update flagSourceColumn related to Tv for all timesteps up to the cursor with quickkey	short key can be used to fill time of validity	short key can be used to fill time of validity. Dutch translations added.	
New Feature as subtask	FEWS-14102	Plugin - Gui - Time Series	HDSR	FEWS-14084 Cursor to last timestep of view period when Tv button is selected	Cursor is set to last time step of zoom period if time of validity is enabled.	Cursor is set to last time step of zoom period if time of validity is enabled.	
New Feature as subtask	FEWS-14602	Plugin - Gui - Time Series	RWS (NL)	FEWS-14599 Changes to time series display: change layout of legends	Legend placing options added for Timeseries Display		<pre>TimeSeriesDisplayConfig.xml: {code} <legend> <placement>rightInside</placement> </legend> <showValueInLegend>true</showValueInLegend> <hideFooter>true</hideFooter> {code}</pre> 

Delft-FEWS 2016.01 - All solved new features								
Improvement as subtask	FEWS-14601	Plugin - Gui - Time Series	RWS (NL)	FEWS-14599 Changes to time series display: collapse tabs	Hide all open tool windows for display groups button	Hide all open tool windows for display groups button. Documentation: https://publicwiki.deltares.nl/display/FEWSDOC/02+Time+Series+Display+Configuration#id-02TimeSeriesDisplayConfiguration-DisplayGrouphidealltoolwindows	<pre>(code) <showDisplayGroupsHideAllToolWindows /> </timeSeriesDisplay> (code)</pre>	
Improvement as subtask	FEWS-14776	Plugin - Gui - Time Series	TVA	FEWS-10616 zooming in TSD not working correctly after using default, last zoom, and display time buttons				
New Feature as subtask	FEWS-14242	Plugin - Gui - Time Series	TVA	FEWS-10616 replacing selected cells in data editor with one value	Pasting the same values in a selection of cells now possible			
Improvement as subtask	FEWS-13883	Plugin - Gui - Time Series	TVA	FEWS-10616 columns in 24-n table layout organised by day, then parameter		Add "group by time series" option for 24-N display in table dropdown menu with shortcut "ctrl alt X". This option is read from and saved to user settings.		
Improvement as subtask	FEWS-13586	Plugin - Gui - Time Series	TVA	FEWS-10616 Plot Overview "zoom to thresholds"				
New Feature as subtask	FEWS-13039	Plugin - Gui - Time Series	TVA	FEWS-10616 TVA: let historical analysis statistical function find data in archive to display in OC				

Delft-FEWS 2016.01 - All solved new features									
New Feature as subtask	FEWS-11195	Plugin - Gui - Time Series	Waterboard De Dommel	FEWS-11062 Add statistical functional 'show as normalized flow' in TSD	Statistical function normalizedFlow added to timeSeries Dialog	Normalized flow, a new statistical function in the TimeSeries Dialog, can now be selected. The function shows up when configured in the timeSeriesDisplayConfig.xml. Two elements are mandatory being: The area function over which the flow should be normalized and the parameter whose unit will be used for display. see https://publicwiki.deltares.nl/display/FEWSDOC/Statistical+functions#Statisticalfunctions-NormalizedFlow	<pre><timeSeriesDisplay> <statisticalFunctions> <statisticalFunction function="normalizedFlow" ignoreMissings="true"> <areaFunction>@AFVOEREND_OPPERVLAK_HA@*2</areaFunction> <parameterId>P.tekort</parameterId> <allowedInputParameterId>Q.meting.akoestisch</allowedInputParameterId> </statisticalFunction> </statisticalFunctions> </timeSeriesDisplay></pre>		
New Feature as subtask	FEWS-13025	Plugin - Gui - Time Series	Waternet	FEWS-13016 'wildcard' for qualifiers for definition and aggregation of timeseries(groups) in timeseriesset			<pre>Existing config: <code>xml </code> <timeSeriesSet> <moduleInstanceId>Import_ECO_CSV</moduleInstanceId> <valueType>sample</valueType> <parameterId>VSA_n</parameterId>vis aantal <qualifierId>AC_8</qualifierId> analyse code <qualifierId>AP_21</qualifierId> analyse protocol <qualifierId>CO5</qualifierId> Opp.Water <qualifierId>GH_1</qualifierId> groothed <qualifierId>LK_10</qualifierId> lengteklasse5 <qualifierId>TWN_1767</qualifierId> Snoek <qualifierId>WM_1</qualifierId> gemeten <locationId>PKH381</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="nonequidistant"/> </timeSeriesSet> </code> New improved config only include quallds that need to be distinguished (excluded from the aggregation) and define aggregation type <qualifierAggregation>: <code>xml </code> <timeSeriesSet> <moduleInstanceId>Import_ECO_CSV</moduleInstanceId> <valueType>sample</valueType> <parameterId>VSA_n</parameterId> <qualifierId>CO5</qualifierId> <qualifierId>WM_1</qualifierId> <locationSetId>Meetnet</locationSetId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="nonequidistant"/> <qualifierAggregation>sum</qualifierAggregation> </timeSeriesSet> </code></pre>	<pre><timeSeriesSet> <moduleInstanceId>Import_ECO_CSV</moduleInstanceId> <valueType>sample</valueType> <parameterId>VSA_n</parameterId>vis aantal <qualifierId>AC_8</qualifierId> analyse code <qualifierId>AP_21</qualifierId> analyse protocol <qualifierId>CO5</qualifierId> Opp.Water <qualifierId>GH_1</qualifierId> groothed <qualifierId>LK_10</qualifierId> lengteklasse5 <qualifierId>TWN_1767</qualifierId> Snoek <qualifierId>WM_1</qualifierId> gemeten <locationId>PKH381</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="nonequidistant"/> </timeSeriesSet> </code></pre>	
New Feature as subtask	FEWS-14663	Plugin - Gui - Time Series Modifier	BC Hydro	FEWS-11235 Ability to hide legend and/or graph in modifierDisplay.	Added config option to define default visibility of the chart and chart legend in the timeSeriesModifierPanel		<pre><modifierDisplay> <timeSeriesModifiersDisplayConfig> <showChartPanel>true</showChartPanel> <showChartLegend>false</showChartLegend> </timeSeriesModifiersDisplayConfig> </modifierDisplay></pre>		
New Feature as subtask	FEWS-14443	Plugin - Gui - Time Series Modifier	BC Hydro	FEWS-14471 Add modifier for "Staumatrix fullen" (p2)					
Improvement as subtask	FEWS-15156	Plugin - Gui - Time Series Modifier	BPA Hermes	FEWS-10053 Importing mods should not always use current system time as creation time, but optionally use the original creation time.					
Sub-task	FEWS-15339	Plugin - Gui - Time Series Modifier	BSH	FEWS-14471 Sort locations by ID in Modifier					
Improvement as subtask	FEWS-15001	Plugin - Gui - Time Series Modifier	MDBA	FEWS-14730 MDBA: Development: Search functionality for location list on modifiers tab					
New Feature	FEWS-15058	Plugin - Gui - Time Series Modifier	Office of Public Works, Ireland	Export of full list of location attributes to CSV file					
New Feature as subtask	FEWS-14086	Plugin - GUI - TimeSeriesButtonsPanel	HDSR	FEWS-14084 Introduction Tv (Time of Validity) button	activating time of validity shows progress bar and reorders topology tree	Activating time of validity shows progress bar and reorders topology tree on completion.			
Improvement	FEWS-13569	Plugin - Module - Amalgamate	Deltares	Make old Amalgamate Module redundant (remove)					

Delft-FEWS 2016.01 - All solved new features							
Improvement	FEWS-14386	Plugin - Module - Archive	Deltares	Simplify configuration of archive server			
New Feature	FEWS-15315	Plugin - Module - Archive	SWITCH-ON / EU Project	SWITCH-ON: Add harvesting of events files to Geonetwork Harvester			
Improvement as subtask	FEWS-14147	Plugin - Module - Archive, System - PI Service	TVA	FEWS-10616 archive webservice: Clipboard functionality in website GUI is not working			
Improvement as subtask	FEWS-14148	Plugin - Module - Archive, Plugin - Module - Data Export	TVA	FEWS-10616 archive webservice: Configuration to only export simulated states based on a relative view period or filter			
Improvement as subtask	FEWS-14141	Plugin - Module - Archive, System - PI Service	TVA	FEWS-10616 archive webservice: Ability to query for all forecasts in a given search period			
Improvement as subtask	FEWS-14530	Plugin - Module - Archive, System - PI Service	TVA	FEWS-10616 archive webservice: Add a webservice method for specifying moduleinstandId			
Improvement	FEWS-14491	Plugin - Module - Archive	VMM (Belgium)	VMM: Archive Export folder is not known			<pre>{code} <?xml version="1.0" encoding="UTF-8"?> <exportArchiveModule xmlns="http://www.wldelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.wldelft.nl/fews http://fews.wldelft.nl/schemas/version1.0/exportArchiveModule.xsd"> <exportSimulated> <general> <archiveFolder>\${ARCHIVE_FOLDER}</archiveFolder> <areald>Maarkebeek</areald> <idMapId>IdArchive</idMapId> <useTaskRunInOutputPath>true</useTaskRunInOutputPath> </general> <activities> <netcdfExportActivities> <netcdfExportActivity> <fileName>IFramework.nc</fileName> <sourceId>VMM-FEWS</sourceId> <timeSeriesSet> <moduleInstanceSetId>IFramework_GA_Historical</moduleInstanceSetId> <valueType>scalar</valueType> <parameterId>Q.sim</parameterId> <locationSetId>iframeworklocations</locationSetId> <timeSeriesType>simulated forecasting</timeSeriesType> <timeStep unit="hour" multiplier="1" /> <relativeViewPeriod unit="hour" startOverrutable="true" endOverrutable="true" end="0" start="-24"/> <readWriteMode>add originals</readWriteMode> </timeSeriesSet> </netcdfExportActivity> </netcdfExportActivities> </pre>
Improvement	FEWS-14770	Plugin - Module - Data Export	CEMIG	ensemble id by csv Export		csvensemble export type. Identical to csv export but with an extra header line containing the ensemble member id	<pre><exportTypeStandard>csvensemble</exportTypeStandard></pre>
New Feature as subtask	FEWS-15066	Plugin - Module - Data Export	FOEN	FEWS-9563 FOEN: Export to LILA format	LILA Export	The LILA export is a simple ASCII format that is used by LARSIM and some German lander. For documentation see: https://publicwiki.deltares.nl/display/FEWSDOC/LILA	<pre>{code} <?xml version="1.0" encoding="UTF-8"?> <timeSeriesExportRun xmlns="http://www.wldelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.wldelft.nl/fews http://fews.wldelft.nl/schemas/version1.0/timeSeriesExportRun.xsd"> <export> <general> <exportType>LILA</exportType> <folder>\${EXPORT_FOLDER}/LILA</folder> <exportFileName> <name>lila</name> </exportFileName> </general> <metadata> <comment>MODEL TEST COMMENT</comment> </metadata> <timeSeriesSet> <moduleInstanceSetId>ImportLILA</moduleInstanceSetId> <valueType>scalar</valueType> <parameterId>Q</parameterId> <locationId>73</locationId> <timeSeriesType>external historical</timeSeriesType> <timeStep unit="minute" multiplier="15"/> <readWriteMode>read complete forecast</readWriteMode> <synchLevel>1</synchLevel> <ensembleId>main</ensembleId> <ensembleMemberIndex>0</ensembleMemberIndex> </timeSeriesSet> </export> </timeSeriesExportRun> </pre>
Improvement	FEWS-15120	Plugin - Module - Data Export	SWITCH-ON / EU Project	SWITCH-ON: Add Netcdf-CF spatial and temporal extent to netcdf scalar timeseries serializer			
Improvement as subtask	FEWS-14913	Plugin - Module - Data Export	TVA	FEWS-10616 export SHEF in daylight saving time step			
Improvement as subtask	FEWS-15006	Plugin - Module - Data Export, Plugin - Module - Data Import	TVA	FEWS-10616 general csv importers and exporters to use any delimiter			<pre>{code} <columnSeparator> </columnSeparator> <decimalSeparator>.</decimalSeparator> </pre>

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Improvement as subtask	FEWS-14668	Plugin - Module - Data Export	Waterboard De Dommel	FEWS-11062 Extend Dino-TUF export with option to not export the filter column			{code} <export> <general> ... </general> <properties> <bool key="FILTERS_COLUMN" value="false"/> </properties> {code}
Improvement as subtask	FEWS-13939	Plugin - Module - Data Export	Waternet	FEWS-13016 enable the export of parameter- and location-attributes to generalCSV export similar to export of qualifier attributes			
New Feature as subtask	FEWS-14868	Plugin - Module - Data Export	Waternet	FEWS-13016 Add <limitSymbolColumn> to export (generalCSV) as "interactive export format" in the explorer.xml			
New Feature	FEWS-14862	Plugin - Module - Data Import	Deltares (research)	Import IOC Sealevel observations	IOC Sealevel monitoring import can filter on sensors and use a relative view period.	IOC Sealevel monitoring import can filter on sensors and use a relative view period. For documentation see: https://publicwiki.deltares.nl/display/FEWSDOC/IOCSealevelMonitoring	{code} <?xml version="1.0" encoding="UTF-8"?> <timeSeriesImportRun xmlns="http://www.wldelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.wldelft.nl/fews http://fews.wldelft.nl/schemas/version1.0/timeSeriesImportRun.xsd"> <import> <general> <importType>IOCSealevelMonitoring</importType> <serverUrl>http://www.ioc-sealevelmonitoring.org/service.php</serverUrl> <connectionTimeOutMillis>20000</connectionTimeOutMillis>
New Feature	FEWS-14570	Plugin - Module - Data Import	Deltares (research)	Waterkwaliteit JSON Service import		Water quality app importer. See: https://publicwiki.deltares.nl/display/FEWSDOC/WaterqualityApp	
New Feature as subtask	FEWS-15269	Plugin - Module - Data Import	FOEN	FEWS-9563 Change import HVZ-LILA to LILA	ImportType name HVZ-LILA changed into LILA	ImportType name HVZ-LILA has been changed into LILA. For 2016.01 both names will be available for backwards compatibility. In 2016.02 the HVZ-LILA name will be removed. See also: https://publicwiki.deltares.nl/display/FEWSDOC/HVZ-LILA	
Improvement	FEWS-14925	Plugin - Module - Data Import	FOEN	Improve SHD import			
New Feature	FEWS-15295	Plugin - Module - Data Import	Sava	WaterML2: Update WaterMIServer parser to import from Savahis.org			
Improvement as subtask	FEWS-13949	Plugin - Module - Data Import	Waternet	FEWS-13016 automatic import of limitsymbols (>, <) when in separate column from valueColumn			{code:xml} <table> <dateTimeColumn name="DATE_SMP" pattern="dd-MM-yy HH:mm"/> <locationColumn name="LOC_CODE"/> <unitColumn name="Eenheid"/> <parameterColumn name="PARAMETER_ID"/> <qualifierColumn name="PAR_REF" prefix="PAR_REF_"/> <qualifierColumn name="PROD_CODE" prefix="PROD_CODE_"/> <sampleIdColumn name="SMP_CODE"/> <propertyColumn name="COST_CODE" key="COST_CODE"/> <limitSymbolColumn name="IND_MEAS"/> <valueColumn name="Waarde"/> </table> {code}
Improvement as subtask	FEWS-14605	Plugin - Module - General Adapter	BC Hydro	FEWS-11235 Create model state every first day of the month			
Improvement as subtask	FEWS-14903	Plugin - Module - General Adapter	Deltares	FEWS-14498 General Adapter allow forking java proces			

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New Feature	FEWS-14882	Plugin - Module - Lookup	SEQWater	Extension of the lookup table functionality with Cubic Spline Interpolation	Transformation function <lookup> <simple> : interpolation type cubicSpline added	<p>Next to the 'linear' and 'class' interpolations, also 'cubicSpline' can be used. 'cubicSpline' interpolates using org.apache.commons.math3.analysis.interpolation.SplineInterpolator</p> <p>Some other remarks : Only extrapolation options "extrapolate" and "notAllowed" are supported , and not "maxmin". This is the case for all interpolation types that can be configured in <lookup> <simple> function</p>	<pre>Example from TransformationModule.xml {code:xml} <transformation id="simpleTableLookup"> <lookup> <simple> <input> <variableId>H1</variableId> </input> <coefficientSet> <interpolationType>cubicSpline</interpolationType> <extrapolationType>extrapolate</extrapolationType> <lookupTable> <lookupTableRow input="1.8" output="4"/> <lookupTableRow input="2.0" output="6"/> <lookupTableRow input="3.0" output="16"/> <lookupTableRow input="3.2" output="18"/> <lookupTableRow input="3.4" output="20"/> <lookupTableRow input="3.6" output="22"/> </lookupTable> </coefficientSet> <output> <variableId>H2</variableId> </output> </simple> </lookup> </transformation> {code}</pre>	
Improvement as subtask	FEWS-15159	Plugin - Module - Modifiers (TimeSeries)	BSH	FEWS-14471 Astronomical number: allow high-water interval configured in ModifierTypes with 'Attributes'				
New Feature as subtask	FEWS-13514	Plugin - Module - Modifiers (TimeSeries), Plugin - Module - Reports	TVA	FEWS-10616 TVA: export workflow or report with modifiers that are in effect over a given timespan	Reports – modifierSummariesTable extensions	<p>The modifierSummariesTable creates a short table by default, with columns Location, Modifier Type Id and Modifier Summary.</p> <p>Configure options "writeFullModifierDescription" and "dateFormatId" to create an extended table. This table shows complete modifier description, similar to the ModifiersDisplay.</p> <p>The report table first shows all modifiers associated with locations and then the model parameter modifiers. Locations are sorted alphabetically.</p>	<pre>Example from Reports.xml {code:xml} <declarations> <defineGlobal id="global1">Global Value 1</defineGlobal> <modifierSummariesTableFormat id="modifierSummariesTableFormat"> <tableStyle>tableStyle3</tableStyle> <scrollableTable>false</scrollableTable> <dateFormatId>dateFormat1</dateFormatId> <writeFullModifierDescription/> </modifierSummariesTableFormat> <dateFormat id="dateFormat1"> <pattern>dd-MM-yyyy HH:mm</pattern> </dateFormat> <numberFormat id="numberFormat1">{0,number,###0.00}</numberFormat> <units>system</units> <templateDir>\$REPORT_TEMPLATE_DIR</templateDir> <reportsRootDir>\$REPORT_ROOT_DIR</reportsRootDir> <reportsRootSubDir>reports</reportsRootSubDir> <sendToLocalFileSystem>true</sendToLocalFileSystem> </declarations> <report> <modifierSummariesTable formatId="modifierSummariesTableFormat" id="table"/> <template>reportTemplate.html</template> {code}</pre>	
New Feature as subtask	FEWS-13760	Plugin - Module - Reports	BPA Streamflow	FEWS-12430 Develop ability to use the season concept when using Html tables (htmlTableFormat)	Reports & Html table : new options in htmlTableFormat	<p>Option "season"</p> <p>Use this option to specify seasonal table view period for a specific Html table. The season overrules the relative view period configured with TimeSeriesSet's.</p> <p>Option "trimViewPeriodToLastNonMissingAfterTime0"</p> <p>Use this option when the configured view period should be dynamically amended to the time of the last non missing value after time zero (after current system time)</p> <p>If the season is configured and the last non missing value is before or at time zero, then the view period is trimmed up to the whole day after time zero. If the last non missing value is after time zero, then the view period is trimmed up to the whole day after last non missing.</p> <p>Table "table_seasonMarch-June.html" shows the table without this trim option, table "table_seasonMarch-June_trimViewPeriodToLastNonMissingAfterTime0.html" shows a table with the trim option.</p>	<pre>Example from Reports.xml {code:xml} <htmlTableFormat id="htmlTableFormat" tableStyle="tableStyle3"> <column>location</column> <row>time</row> <season> <startMonthDay>--03-01</startMonthDay> <endMonthDay>--06-30</endMonthDay> </season> <trimViewPeriodToLastNonMissingAfterTime0>true</trimViewPeriodToLastNonMissingAfterTime0> <topLeftText>date/time</topLeftText> <cellFormat>{0,number,0.00}</cellFormat> <topFormat>{1} {2} [{3}]</topFormat> <leftFormat>{0,time, dd-MM-yyyy HH:mm}</leftFormat> <missingValueText></missingValueText> </htmlTableFormat> {code}</pre>	

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New Feature as subtask	FEWS-15049	Plugin - Module - Reports	BSH	FEWS-14471 Meteo-Beratung Table	Report "rowPerEventTimeHtmlTable"	<p>rowPerEventTimeHtmlTable is a html table that shows one row for each time series event. The columns are configurable.</p> <p>This table is suitable to create a html table for single location. If multiple locations are configured, then the table has for each event multiple rows, for each location one row.</p> <p>Example rowPerEventTimeHtmlTable_exampleSingleLocation.zip shows general usage of this html table. Example "Meteo_Beratung_Table_example.zip" shows the usage of rowPerEventTimeHtmlTable to create Meteo Beratung tables.</p> <p>Some remarks concerning the configuration of "Meteo Beratung table":</p> <p>Function ASTRONOMICAL_PEAKS_AND_LOWS is used to print HW/NW labels. An example: ASTRONOMICAL_PEAKS_AND_LOWS(LABEL;MHWI;0;H measured) If the astronomical number should be printed, just use NUMBER instead of LABEL. The second parameter (MHWI in the example) is a Id of the location attribute that holds time correction for computation of the astronomical numbers.</p> <p>Column function PERIOD is used to print 'Zeitraum'. The fourth parameter of this function represents time span (timeSpan1) in seconds for the begin of the period. The fifth parameter of this function represents time span (timeSpan2)</p>	
New Feature	FEWS-14660	Plugin - Module - Reports	Deltares (research)	Report Module: add functionality for keywords	Allow using TIMEZERO in report subdirectory and TIMESTEP in snapshots https://publicwiki.deltares.nl/display/FEWSDOC/09+Report+Module	<p>When generating reports, TIMEZERO can be used in report subdirectory and TIMESTEP in snapshot</p> <pre><reports 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/reports.xsd" version="1.0"> <declarations> <dateFormat id="df1"> <pattern>yyyyMMdd</pattern> </dateFormat> <dateFormat id="df2"> <pattern>HH</pattern> </dateFormat> <templateDir>\${REPORT_TEMPLATE_DIR}</templateDir> <reportsRootDir>\${REPORT_ROOT_DIR}</reportsRootDir> <reportsRootSubDir>EAM.Flow_%TIMEZERO(df1)%</reportsRootSubDir> <sendToLocalFileSystem>true</sendToLocalFileSystem> <timeZone> <timeZoneName>GMT+0:00</timeZoneName> </timeZone> </declarations> <report> <spatialPlotSnapshots> .. <snapshot id="Waterlevel_0"> <relativeTime unit="hour" value="0"/> <fileName>SNAPSHOT_%TIMESTEP(df1)%_%TIMESTEP(df2)%</file Name> </snapshot></pre>	
Improvement as subtask	FEWS-14546	Plugin - Module - Reports	TVA	FEWS-10616 ability to configure font for axis titles and legends in report charts	Charts in Reports and ChartLayer: configurable font for axis titles and legend	<p>Font for left and right vertical axis, horizontal axis and legend can be configured in chartFormat.</p> <pre>{code:xml} <chartFormat id="ChartFormat"> <leftAxis> <caption>Water Level</caption> <titleFont name="SansSerif" size="14" style="bold"/> </leftAxis> <rightAxis> <caption>Discharge</caption> <titleFont name="SansSerif" size="12" style="bold"/> </rightAxis> <legend> <placement>right</placement> </pre>	
Improvement as subtask	FEWS-14992	Plugin - Module - Transformation	BSH	FEWS-14471 Add "astronomical number" to export			
New Feature as subtask	FEWS-14441	Plugin - Module - Transformation	BSH	FEWS-14471 Add "astronomical number" as attribute to high and low water in FEWS (p2)			

New Feature as subtask	FEWS-13682	Plugin - Module - Transformation	Idaho Power	FEWS-14466 Performance Indicators on gridded forecasts in Transformation Module	Added new transformations PerformanceIndicatorsLeadTimeAccuracyBias and PerformanceIndicatorsLeadTimeAccuracyRootMeanSquareError	Added new transformations PerformanceIndicatorsLeadTimeAccuracyBias and PerformanceIndicatorsLeadTimeAccuracyRootMeanSquareError. These new transformations are the same as the old leadTimeAccuracy bias and rmse indicators in the old PerformanceIndicatorSets module. However the new transformations work for scalar as well as grid time series, whereas the old PerformanceIndicatorSets only work for scalar time series. For grid time series the indicators are determined for each grid cell separately.	<pre>(code:xml) <transformation id="test"> <performanceIndicatorsLeadTimeAccuracy> <rootMeanSquareError> <observedVariable> <variableId>observed</variableId> </observedVariable> <forecastVariable> <variableId>forecast</variableId> </forecastVariable> <forecastSearchPeriod unit="day" start="-30" end="0"/> <leadTime unit="day" value="4"/> <ignoreMissing>false</ignoreMissing> <outputVariable> <variableId>output</variableId> </outputVariable> </rootMeanSquareError> </performanceIndicatorsLeadTimeAccuracy> </transformation> (code)</pre>	
Improvement as subtask	FEWS-14003	Plugin - Module - Transformation	RWS (NL)	FEWS-12363 On the fly transformation from u and v in Spatial Display to direction timeseries graph	Wind direction can be displayed in the time series dialog using the uvDirectionParameterId configuration	Wind direction can be displayed in the time series dialog using the uvDirectionParameterId configuration. For documentation see: https://publicwiki.deltares.nl/display/FEWSDOC/01+Grid+Display	<pre>See the following example of a datalayer definition in a gridPlot (code) <dataLayer> <arrowColor>white</arrowColor> <arrowSymbol>wind</arrowSymbol> <uTimeSeriesSet> <moduleInstanceld>hirlam72</moduleInstanceld> <valueType>grid</valueType> <parameterId>Wind.u</parameterId> <locationId>KNMI-HIRLAM-V72</locationId> <timeSeriesType>external forecasting</timeSeriesType> <timeStep unit="hour" multiplier="1"/> <relativeViewPeriod unit="day" start="-1" end="2"/> <readWriteMode>read only</readWriteMode> </uTimeSeriesSet> <vTimeSeriesSet> <moduleInstanceld>hirlam72</moduleInstanceld> <valueType>grid</valueType> <parameterId>Wind.v</parameterId> <locationId>KNMI-HIRLAM-V72</locationId> <timeSeriesType>external forecasting</timeSeriesType> <timeStep unit="hour" multiplier="1"/> <relativeViewPeriod unit="day" start="-1" end="2"/> <readWriteMode>read only</readWriteMode> </vTimeSeriesSet> <uvAmplitudeParameterId>Wind.amplitude</uvAmplitudeParameterId> <uvDirectionParameterId>Wind.dir</uvDirectionParameterId> </dataLayer> (code)</pre>	
New Feature as subtask	FEWS-14569	System	Deltares	FEWS-14498 Windows 64 bits support - Firebird database	Support for Firebird 64 bit and 32 bit on windows	Support for both Firebird 64 bit and 32 on windows is available. Depending on the JRE that is used the correct firebird dll's will be used.		
Improvement	FEWS-14205	System	Deltares	Make default temp dir %REGION_HOME%/temp				
New Feature as subtask	FEWS-14501	System	Deltares	FEWS-14498 Linux 64 bits support - OC	Linux OC is running only on 64 bit	Linux OC is running only on 64 bit.		
Improvement	FEWS-14347	System	Deltares	New display config and root config is only applied at startup and not while DDA OC is running				
New Feature as subtask	FEWS-14499	System	Deltares	FEWS-14498 Wldelft native to JNA	All native libraries migrated to JNA	- All libraries that access dll's or shared objects have been migrated to use JNA. - chm help files are no longer supported, use pdf help file instead		
Improvement as subtask	FEWS-15113	System	Deltares	FEWS-14821 Admin Interface: sorting on columns Latest Task Run Dispatch Time & Latest Task Run Status does not work	Admin Interface tasks overview now displays tasks in a single list, making sorting easier.	Previously, there were two lists shown as one list. Pending and finished tasks. This was confusing for sorting the columns. Now there is only one list shown.		

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Improvement	FEWS-11840	System	Deltares	Validate bin dir on start up			
New Feature as subtask	FEWS-14521	System	Deltares	FEWS-14498 Derby local datastore as default	MsAccess will be obsolete in 2016.02		
Improvement as subtask	FEWS-14904	System	Deltares	FEWS-14498 Cleanup script	Cleanup script cleanup_bin scripts (bat/sh) have additional 32 / 64 bits clean up options under windows.		
Sub-task	FEWS-13722	System	RWS (NL)	FEWS-13718 BIR: ActiveMQ https compatible maken			<pre> <code> <!-- Location of specific AI war file. (Can be a symlink) --> <Context docBase="{catalina.home}/fews/fewsadmin.war"> <!-- Data source to connect to the central database --> <Resource name="jdbc/fews/eamimc01" scope="Shareable" auth="Container" type="javax.sql.DataSource" factory="org.apache.commons.dbcp.BasicDataSourceFactory" driverClassName="oracle.jdbc.OracleDriver" url="jdbc:oracle:thin:@pl-or001.xtr.deltares.nl:1521:EAMI01" username="fews" password="pass01word" validationQuery="SELECT entryId FROM Sequences" maxActive="20" maxIdle="10" maxWait="5000" removeAbandoned="true" removeAbandonedTimeout="2700"/> <!-- Location of MC configuration file. Use forward slashes for systems running on windows, e.g. D:/opt/mc/fewsmc --> <Parameter name="NFFS_HOME" value="/opt/fews/mc/mcs/nffs/mimc01" override="false"/> <Parameter name="mc_configuration_file" value="fews.master.mc.conf" override="false"/> <Parameter name="keystore_file" value="/opt/fews/mc/mcs/nffs/mimc01/client.keystore" override="false"/> <Parameter name="truststore_file" value="/opt/fews/mc/mcs/nffs/mimc01/client.truststore" override="false"/> </Context> </code> </pre>
Improvement	FEWS-14707	System - Logging	Office of Public Works, Ireland	Allow LogBrowser / BulletinBoardPlus records to be saved as CSV (in addition to saving as TXT)	LogBrouwer, BulletinBoard and ForecasterNotes: saving messages in CSV format	Messages selected in LogBrouwer, BulletinBoard and ForecasterNotes can be saved also in CSV format Example of the saved forecaster notes csv file: (code:xml) Log level,Creation time,Event Code,Event time,User,Template,Segment,Log Message WARN,18-03-2016 11:06:29,Manual.Error,2013-01-15 20:00:00.0,Jitka Tacoma - Nejedla,Phone call,,support officer informed INFO,18-03-2016 11:05:22,Dam.info,2013-01-15 20:00:00.0,Jitka Tacoma - Nejedla,,info concerning the dam (code)	
Improvement	FEWS-14333	System - Logging	RWS (NL)	RWSOS NZ: aanmaken melding			
Improvement	FEWS-13830	System - PI Service	Deltares	Log memory usage in pi-webservice			
New Feature	FEWS-15139	System - PI Service	Idaho power	Idaho Power:Create a command line FewsPiService client for running workflows			
Improvement as subtask	FEWS-14531	System - PI Service	TVA	FEWS-10616 archive webservice: add a webservice query method for qualifierId			
New Feature	FEWS-14429	System - PI Service	VMM (Belgium)	VMM: FewsPiService - add option to run tasks with overruling cold state selection			



New Feature as subtask	FEWS-13027	System - PI Service	Waternet	FEWS-13016 Support Sample (meta)data exchange in PI-Webservice	PI Service supports Samples	The PI Service supports Samples by using the getSamplesAsStream soap method.	
Improvement	FEWS-14324	Utility - Configurator	Deltares	Generate encrypted passwords in configurator	Configurator now creates encrypted passwords in dda_clientConfig.xml.		

Deltares
Enabling Delta Life Delft Hydraulics

Delft-FEWS PI Service

[Please try out the new test page developments](#)

Service name: FewsPIService (2016.01)
 WSDL: <http://localhost:8080/FewsPIService/fews-service?wsdl>
 Region: d/fews/Waternet_PI/
 MC ID: XXXXXXXXXX
[Refresh](#)

Select Method: getSamplesAsStream

Filter ID:

Sample ID (sampleId1;sampleId2;...sampleIdn):

Location ID (locId1;locId2;...locIdn): MBP012

Parameter ID (parId1;parId2;...parIdn):

Qualifier ID (qualId1;qualId2;...qualIdn):

Request start time (yyyy-MM-dd HH:mm): 1990-02-02 12:00

Request end time (yyyy-MM-dd HH:mm): 2000-02-02 12:00

Creation start time (yyyy-MM-dd HH:mm):

Creation end time (yyyy-MM-dd HH:mm):

Skip missing values: yes

Only headers: no

Version: 1.21