OHD-CORE 23.1.1 Release Notes

Build and Package Date: 11/05/2024. Tested against: FEWS: 2023.02 build 135114, patched from 130690.
Part of CHPS Build: 24.1.1 Release Date: November, 2024

Overview

This release contains 2 Enhancements and 1 Bug fix which are new since the release of OHD-CORE-23.1.1

Known Issues and Limitations

None at this time.

Scripts / Documentation

Scripts

- *Modified:* ***run_SSHPCHPS_data_transfer*** *and* ***run_SSHPCHPS_transfer_send***
- *Removed:* **run_SSHPCHPS_data_extract**
- *New:* ***replaceFROSTINDEXtoFROSTAMOUNT.sh*** and ***migrateGGSSHPToRest.sh***

Documentation

The following pieces of documentation have been modified since the last release and can be found in the directory at the root of the package. All the CHPS documentation may be found online at *https://vlab.noaa.gov/group/chps/wiki/-/wiki/OWP+Documentation/FrontPage*

- *Modified:* ***SSHP Data Transfer and Sacramento with Heat Transfer***
- *New:* None
- *Removed:*

Fixes

Redmine ID	Reported By	Title
126188	MBRFC	Sac-HT model computes FGIX values with units of degrees C, it should be total amount of frozen water and assigned a new variable FRAMT

Enhancements

Redmine ID	Requested By	Title
73104	OWP	Migrate SSHP Data transfer off of Embedded PI Service.
101287	MBRFC	OHD Models to be seamlessly integrated in Delft-FEWS without a general model adapter

Detailed Description of Software Changes and Enhancements

Fixes:

Redmine	**126188** – Sac-HT model computes FGIX values with wrong units
Description	The current CHPS Sac-HT model computes a timeseries of FGIX values with units of degrees C. This is not accurate. FGIX is not a frost index in degrees C. Rather, it is the total amount of frozen water in the physical soil layers that correspond to the Sac upper and lower zones as programmed into the SAC-HT software.
Cause	A timeseries of FGIX values with units of degrees C is not accurate.
Fix	Replaced the FGIX variable with a new variable, FRAMT with the proper units (MM).

Notes	- Some documents written by Mike Smith, Research Hydrologist, Interdisciplinary Science and Engineering Division have been added to Sacramento_with_Heat_Transfer.doc - OWP provides replaceFROSTINDEXtoFROSTAMOUNT.sh script to update CHPS configuration with new FRAMT variable. You will copy the *replaceFROSTINDEXtoFROSTAMOUNT.sh* script parallel to your SA and run it. *Example:* ***./replaceFROSTINDEXtoFROSTAMOUNT.sh mbrfc_sa***

Enhancements:

Redmine	**73104 -** Migrate SSHP Data transfer off of Embedded PI Service.
Description	Deltares would like all of their clients to migrate off of the Embedded PI Service (FewsPiService.jar) and use the tomcat Delft-FEWS PI webservice & a Java interface that they developed in FEWS-2022.02.
Cause	***The FEWS PI SOAP service is no longer functional in FEWS-2023.02 and OHD-CORE-23.1.1.***
Fix	Changed run_SSHPCHPS* scripting and java codes to operate on FEWS PI REST Web Service.
Notes	- The SSHP run scripts have changed and been removed as below. ● ***changed: run_SSHPCHPS_data_transfer*** *and* ***run_SSHPCHPS_transfer_send*** ● **removed: run_SSHPCHPS_data_extract** - OWP provides migrateGGSSHPToRest.sh script to migrate SSHP, GraphGen and HEFS to FEWS REST WebService. You will copy the migrateGGSSHPToRest.sh script parallel to your SA and run it. Example: ***./migrateGGSSHPToRest.sh mbrfc_sa*** - Updating the SSHP cron entry is required. ● REST FewsWebService (on chps1)

	/awips/hydroapps/whfs/bin/run_SSHPCHPS_transfer_send Tomcat-portNumber ***example:*** 30 18 * * * fews /awips/hydroapps/whfs/bin/run_SSHPCHPS_transfer_send ***8443*** > /home/public/bin/obslog_sshpchps

Redmine	**101287** - OHD Models to be seamlessly integrated in Delft-FEWS without a general model adapter
Description	To improve performance for the many different types of forecast the OHD models could be directly integrated into Delft-FEWS without a general model adapter. The general model adapter requires many read/writes (input/output) to the physical drives for every forecast run, significantly reducing the system performance.
Cause	N/A
Fix	Updated OHDFewsAdapter codes to read/write files in Memory or on Disk.
Notes	- OWP provides insertInMemoryFileTransfer.sh script to add a line ***<inMemoryFileTransfer>$INMEMORY$</inMemoryFileTransfer>*** to the $REGIONHOME/Config ModuleConfigFiles and it will also add "***INMEMORY=false***" property to the global.properties file. - You will copy the insertInMemoryFileTransfer.sh script parallel to your SA and run it. **./insertInMemroyFileTransfer.sh** *xxrfc_sa* - Change the global.properties file. Test read/write to **Disk** (INMEMORY=**false**) Test read/write to **Memory** (INMEMORY**=true**)