FEWS 2023.02 Installation Procedure

Contents

1 Introduction

This document describes the procedure to update the existing client-server and stand-alone systems from the NWS2022.02 FEWS release to the NWS2023.02 FEWS release at all RFCs.

Note: This procedure cannot be used to set up an initial client-server system.

Please verify that the procedures described in each section have been completed successfully before proceeding to the next section. Instructions for verification will be provided.

Any commands to be typed in will be displayed in a monospace font within a block.

```
$ ls -l /awips/chps_share/fews
```

Note: Logs for each script can be found here:

`/awips/chps_share/install/CHPS-24.1.1/installScripts/logs`

2 Unpack the distribution

In this section, the contents of this directory will be copied to the /chps_share directory, and from there parts will be copied to other locations.

1. Log on to `chps9` as user *fews*.

   ```
   user@chps9]$ cd /awips/chps_share/install/CHPS-24.1.1/installScripts
   ```

2. Untar the package :

   ```
   user@chps9]$ sudo –u fews ./fews_extract.sh
   ```

3 Update of the Stand Alone application for testing purposes

Please Note: This is a generic procedure to update a Stand Alone version with the latest Delft-FEWS binaries. Exact paths will depend on the individual installations, only relative paths are given here.

The Stand Alone version is the only version where new binaries may be installed by an ordinary user and not the super user.

Create a test application with the new binaries

At an `LX workstation`

1. Backup the current FEWS binaries.

```
user@lx]$ cd /awips/chps_share/sa/fews
user@lx]$ sudo –u fews mv bin bin.202202 (if any)
```

2. Create a symlink to the latest FEWS binaries in the release package.

```
user@lx]$ sudo –u fews ln -s /awips/chps_share/install/CHPS-
24.1.1/*202302*MC*OC*/delft_fews_binaries/bin bin
```

3. If not available in the `fews` directory, copy a functional `??rfc_sa` application into this directory.

```
user@lx]$ sudo –u fews cp -dR /path/to/??rfc_sa .
```

4. Create a symlink to the latest FEWS patch.jar in the release package.

```
user@lx]$ cd ??rfc_sa
user@lx]$ sudo –u fews rm –rf *patch.jar
user@lx]$ sudo –u fews ln -s /awips/chps_share/install/CHPS-24.1.1/
*202302*MC*OC*/delft_fews_binaries/patch_placeholder/patch.jar .
```

5. Launch the SA.

```
user@lx]$ cd ../
user@lx]$ sudo –u fews ./launch_client.sh ??rfc_sa
```

<u>Open the Stand alone application</u>

Open the Stand Alone application and verify the following:

1. Use the menu **Help → About** and confirm that the build number is **133930** (or higher). This proves the correct build is used.
2. Test functionality as you see fit. Run segments etc.

4 Update Dev-Test systems (chps7|8|9)

4.1 Stop all CHPS services

1. Shutdown your CHPS services on the FSS (chps9) server. Log on to chps9.

```
user@chps9]$ sudo systemctl stop chps.target
user@chps9]$ exit
```

2. Shutdown your CHPS services on the MC (chps7) server. Log on to chps7.

```
user@chps7]$ sudo systemctl stop chps.target
user@chps7]$ exit
```

4.2 Update the Database (DevTest-chps8)

3. Log on to chps8. Verify nightly database backups.

```
user@chps8]$ ls –l /awips/chps_backup/chps_pgdumps/
```

4. Navigate to the install directory.

```
user@chps8]$ cd /awips/chps_share/install/CHPS-24.1.1/installScripts
```

5. Run the script to update Database (follow prompt instructions):

```
user@chps8]$ sudo –u fews ./fews_DB.sh
```

Note: Some Expected Errors.

4.3 Update the MasterController (DevTest-chps7)

1. Log on to chps7.

```
user@chps7]$ cd /awips/chps_share/install/CHPS-24.1.1/installScripts
```

2. Run the script to update MC:

```
user@chps7]$ sudo –u fews ./fews_MC.sh
```

4.4 Start Tomcat service on MasterController (DevTest-chps7)

1. Log on to *chps7* and start chps-tomcat services :.

```
user@chps7]$ sudo systemctl start chps-tomcat
```

2. Check status of services, you should expect to see tomcat.

```
user@chps7]$ sudo systemctl status chps-tomcat
```

3. Webservices will not be started at this point. Only the AI is started. The Webservice needs the FSS to start first before starting it, we will start the Webservice at a later step below.

4.5 Upload base build and patch.jar through Admin Interface

1. On a LX workstation where a Firefox browser is open, navigate to: $YOURSERVERNAME$:8443/fewsadmin_xxxmc02.

2. Log in to the new Admin Interface and upload the base build zip file. Admin Interface ->Software Management -> Upload Basebuild

```
/awips/chps_share/install/CHPS-24.1.1/*202302_MC*OC*/basebuild/fews-stable-202302*bin.zip
```

3. Under Admin Interface ->Software Management -> Upload Config Management patch upload the patch.jar.

```
/awips/chps_share/install/CHPS-
24.1.1/*202302_MC*OC*/delft_fews_binaries/patch_placeholder/patch.jar
```

4.6 Start CHPS MasterController services on MasterController (DevTest-chps7)

1. Start chps-mastercontroller services :

```
user@chps7]$ sudo systemctl start chps.target
```

2. Check status of services, you should expect to see tomcat and mastercontroller.

```
user@chps7]$ sudo systemctl status chps\*
```

4.7 Update RootConfig files through ConfigManager

1. On a LX workstation navigate to a Configuration Manager home directory.

2. Update bin link to point to latest FEWS bin.

```
user@lx]$ cd /path/to/CM/
user@lx]$ sudo –u fews rm –rf bin
user@lx]$ sudo –u fews ln -s /awips/chps_share/install/CHPS-
24.1.1/*202302*MC*OC*/delft_fews_binaries/bin bin
```

3. Launch CM and upload the configuration.

```
user@lx]$ sudo –u fews ./<mc-id>_launch_CM.sh ??rfc_cm
```

4.8 Update the Forecast Shell Servers (DevTest-chps9)

4. Log on to *chps9*.

```
user@chps9]$ cd /awips/chps_share/install/CHPS-24.1.1/installScripts
```

5. Run the script to update FSS:

```
user@chps9]$ sudo –u fews ./fews_FSS.sh
```

4.9 Start CHPS services on Forecast shell servers (DevTest-chps9)

6. Log on to *chps9*. Start chps FSS services:

```
user@chps9]$ sudo systemctl start chps-fsslauncher
```

7. Check status of services, you should expect to see FSS launcher :

```
user@chps9]$ sudo systemctl status chps\*
```

4.10 Update the Operator Client for testing purposes

Update binaries

1. On an LX workstation.

```
anyuser@lx]$ cd /awips/chps_share/oc/
```

2. Change directory to user directory for the testing user. We using user *fews* as an example.

```
fews@lx]$ cd fews
```

3. If `bin` is a directory, remove it so the test user can use the new binaries.

```
fews@lx]$ rm -rf bin
fews@lx]$ ln -s /awips/chps_share/install/CHPS-24.1.1/*202302*MC*OC*/delft_fews_binaries/bin
bin
```

4. Launch the OC:

```
fews@lx]$ cd ../
fews@lx]$ ./launch_client.sh ??rfc_oc
```

Note: Update the OC global properties file to point to the Beta OHD-CORE-23.

Open the Operator Client test application and conduct some testing

Open the Operator Client application and verify the following:

1. Login to the Master controller and confirm that the synchronization to the OC works fine. Note: if a single Master Controller is configured, the OC will automatically login.

2. Use the menu "Help" → "About" and confirm that the build number is **133930** (or higher). This proves the correct build and patch is being used.

3. Open a web-browser and login at the Admin Interface.

4. Create a Manual Forecast to test the OC → FSS communications. Submit the forecast.

5. Once completed, confirm that it properly executed and returned the results to your OC.

4.11 Start Tomcat Webservices

1. Log on to chps7. Deploy the Webservice XML File.

```
user@chps7]$ sudo -u fews cp /awips/chps_local/tomcat/fews/fewswebservice*xml
/awips/chps_local/tomcat/conf/Catalina/localhost/
```