HEC-RAS-6.0.0_6.0.0.35 Install Instructions

Release Date: 9/28/2023
Release Type: Scheduled
HEC-RAS Model Engine: 6.0.0
HEC-RAS FEWS Adapter: 6.0.0_6.0.0.35
CHPS Build 23.1.1
Build and Package Date: 9/27/2023
Tested against FEWS Binary: 2022.02 build 125180, patched from 125158

Introduction

These instructions describe the installation procedure to update HEC-RAS. It is assumed that the RFC will be updated to FEWS 2022.02 build 125180, patched from 125158 and currently has HEC-RAS-6.0.0_6.0.0.23. If you have any questions during the installation, please contact the CHPS Support Group (part of the Field Support and Infrastructure team in the Office of Central Processing). The install instructions will guide you through the following steps:

1. Extract the HEC-RAS package
2. Standalone installation and testing
3. OC installation and testing on a Dev/Test system
4. FSS installation and testing on a Dev/Test system
5. FSS installation and testing on an Operational system
6. Roll out update to all Operator Client

Note: the instructions for installing on a Dev/Test and Operational system are essentially the same except for the machines you are installing on.

Commands that have to be entered will be displayed in a fixed width font like this:
```
$ ls –l /awips/chps_share/
```

Note: Logs for each script can be found here:
```
/awips/chps_share/install/CHPS-23.1.1/installScripts/logs
```

Installation Instructions Using the hecras_install.sh Script

1. Extract the HEC-RAS-6.0.0_6.0.0.35 package

   1.1. Log in to an LX workstation as user *fews*. Navigate to the CHPS- 23.1.1 directory.
```
$ cd /awips/chps_share/install/CHPS-23.1.1/installScripts/
```
   1.2. Run the install script to extract the package.
```
$ sudo –u fews ./hecras_install.sh
```
   1.3. Once complete, you may move onto standalone installation and testing.

2. *Standalone Installation and Testing*

2.1. Log in to an LX workstation as user *fews*.

2.2. Create an up to date Standalone client for testing.

2.3. Run the install script to make a link to point to the downloaded software inside the SA's Models directory.
```
$ cd /awips/chps_share/install/CHPS-23.1.1/installScripts/
$ sudo -u fews ./hecras_install.sh sa
</path/to/your/test/sa/Models/hec/hecras>
```

2.4. Verify the SA global properties file points HECRASBINDIR to the Hec-Ras bin in the step above.

2.5. Test to make sure all workflows complete as expected. Raise any issues with the Support Group through Redmine. You may move onto the next step once satisfied with Standalone testing.

3. *Operator Client Installation and Testing for Dev/Test purposes*

NOTE: These instructions will walk you through installation and testing on both a Dev/Test system. Perform these actions on your Dev/Test system first.

3.1. Log in to an LX workstation as user *fews*.

3.2. Run the install script to make a link to point to the downloaded HEC-RAS software under the OC's Models directory.
```
$ cd /awips/chps_share/install/CHPS-23.1.1/installScripts/
$ sudo -u fews ./hecras_install.sh dev oc
</path/to/your/test/oc/Models/hec/hecras>
```

3.3. Test to make sure all workflows complete as expected. Raise any issues with the Support Group through Redmine.

4. *FEWS Shell Installation and Testing for Dev/Test purposes (chps9)*

NOTE: These instructions will walk you through installation and testing on a Dev/Test system. Perform these actions on your Dev/Test system first.

4.1. Log in to chps9 as user *fews*.

4.2. Check the Admin Interface if any tasks are running at the FSSs. If no tasks are running, run the install script with the following command.
```
$ cd /awips/chps_share/install/CHPS-23.1.1/installScripts/
$ sudo -u fews ./chps_setEnvironment.sh
$ sudo -u fews ./hecras_install.sh fss
```

4.3. Test to make sure all workflows complete as expected. Raise any issues with the Support Group through Redmine.

5. *FEWS Shell Installation and Testing for your Operational systems (OpsBackup-chps6 / OpsPrimary-chps3)*

NOTE: These instructions will walk you through installation and testing on your Operational System. **These actions will affect your Primary and Secondary (backup) Operational systems.**

5.1. Log in to your FSS machine (chps3) as user *fews*.

5.2. Check the Admin Interface if any tasks are running at the FSSs. If no tasks are running, run the install script with the following command.
```
$ cd /awips/chps_share/install/CHPS-23.1.1/installScripts/
$ sudo -u fews ./chps_setEnvironment.sh
$ sudo -u fews ./hecras_install.sh fss
```
5.3. Test to make sure all workflows complete as expected. Raise any issues with the Support Group through Redmine.

5.4. Repeat steps 5.1 through 5.3, this time logging into your **Secondary (backup) Operational system's FSS machine** (usually chps6).

6. Roll out update to all Operator Client

Once the tests with the Operator Client are satisfying, the HEC-RAS binaries can be rolled out to all OCs.

NOTE: These instructions will walk you through installation on your Operational systems. **These actions will affect your Primary and Secondary (backup) Operational systems.**

6.1. Log in to an LX workstation as user *fews*.

6.2. Run the install script to make a link to point to the downloaded HEC-RAS software under the OC's Models directory.
```
$ cd /awips/chps_share/install/CHPS-23.1.1/installScripts/
$ sudo -u fews ./hecras_install.sh oc
```
6.3. Test to make sure all workflows complete as expected. Raise any issues with the Support Group through Redmine.

Rolling Back an HEC-RAS Release

In the case where the HEC-RAS release needs to be rolled back to a previous version:

Log in to an LX workstation as user *fews*.

1. For an SA, restore links and references in your SA global properties to the previous release (i.e. bin_4.1.0_1.0.8). Run the script with the following command
```
$ cd /awips/chps_share/install/CHPS-23.1.1/installScripts/
$ sudo -u fews ./hecras_install.sh rollback sa
```
2. For an OC, Run the script with the following command
```
$ cd /awips/chps_share/install/CHPS-23.1.1/installScripts/
$ sudo -u fews ./hecras_install.sh rollback oc
```
3. For your FSS. Log in to an LX workstation as user *fews*. Run the script with the following command
```
$ cd /awips/chps_share/install/CHPS-23.1.1/installScripts/
$ sudo -u fews ./hecras_install.sh rollback fss
```