

OHD-CORE-CHPS-4.5.a Install Instructions

Release Date: 10/28/16
Release Type: Scheduled
CHPS Build: 5.4.1
OHD-CORE Build: 4.5.a
OHD-CORE Build and Package Date: 10/24/2016
Tested against FEWS: 2015.02 build 63713, patched from 59855

Introduction

These instructions describe the installation procedure to update OHD-CORE. 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 following sections are included to guide one through the installation steps and, if necessary, rolling back an installation.

With this release there is an installation script (*ohd_core_install.sh*) to automate the process of installing OHD-CORE. You will find instruction below to install using this script. Manual installation instructions are still left behind if needed.

Installation Instructions

1. Install the OHD-CORE-CHPS-4.5.a Package
2. Standalone Installation and Testing
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4. FEWS Forecast Shell Installation and Testing for Dev/Test purposes
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6. FEWS Forecast Shell Installation for your Operational systems

Rolling Back an OHD Release

1. Stand Alone (SA)
2. Operator Client (OC)
3. FEWS Forecast Shell (FSS)

The `ohdPlugins` directory (`../OHD-CORE-CHPS-4.5.a/ohd/plugins`) includes a script for executing OHD plugins (e.g. graphics generator) named *fews_ohdPlugins.sh*. This is a modified `fews.sh` script and the contents added by OWP **MUST** be used for starting up FEWS with an OHD plugin. You can either use our script to start FEWS or alternatively you can add the contents in between **# start - added for running ohd-plugins** and **# finish - added for running ohd-plgins** to your default `fews.sh` script.

Commands that have to be entered will be displayed in a fixed width font like this:

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

Assumptions

It is assumed that the RFC is at FEWS 2015.02 build 63713, patched from 59855 and OHD-CORE-CHPS-4.4.a.

New Elements

None

Installation Instructions using the ohd_core_install.sh Script

1. Retrieve and Install the OHD-CORE-CHPS-4.5.a package

- 1.1. Log in to CHPS3 as user *fews*. Navigate to the CHPS- 5.4.1 directory.
 - 1.1.1. `[fews@chps3] cd /awips/chps_share/install/Oct2016/CHPS-5.4.1/`
- 1.2. Run the install script to untar the package (which was included in the CHPS- 5.4.1 tar file 'pushed' by AWIPS):
 - 1.2.1. `[fews@chps3] $./ohd_core_install.sh`
- 1.3. (optional) Edit the `fews_ohdPlugins.sh` script (located in `/awips/chps_share/install/Oct2016/CHPS- 5.4.1/OHD-CORE-CHPS-4.5.a/ohd/plugins`) to incorporate your current `-Xmx` values.
 - 1.3.1. `[fews@chps3] $./ohd_core_install.sh xmx <Xmx value>`
 - 1.3.2. Example: `$./ohd_core_install.sh xmx 2048`
- 1.4. From here on the path `/awips/chps_share/install/Oct2016/CHPS- 5.4.1/OHD-CORE-CHPS-4.5.a` will be referred to as `<4.5.a>`.
- 1.5. Once complete, you may move onto standalone installation and testing.

2. Standalone Installation and Testing

- 2.1. Log in to your Dev/Test system 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. Edit the SA global properties file to point `OHDBINDIR` to the bin.
 - 2.3.1. `$ cd /awips/chps_share/install/Oct2016/CHPS-5.4.1/`
 - 2.3.2. `$./ohd_core_install.sh sa </path/to/your/test/sa/Models/ohd>`
- 2.4. Test to make sure all workflows complete as expected. Raise any issues with CHPS 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 using a Dev/Test system. **Perform these actions using your Dev/Test OC Client.**

- 3.1. Log in to your system as user *fews*.
- 3.2. Verify that your Dev/Test OC client is set up properly for testing. (See the CHPS Support Group VLab article [https://vlab.ncep.noaa.gov/group/chps/wiki/-/wiki/How-Tos/Configure+an+OC+for+DevTest\(789\)+System](https://vlab.ncep.noaa.gov/group/chps/wiki/-/wiki/How-Tos/Configure+an+OC+for+DevTest(789)+System) on how to **Configure an OC for DevTest(789) system**).
- 3.3. Run the install script to make a link to point to the downloaded OHD-CORE software under the OC's Models directory.
 - 3.3.1. `$ cd /awips/chps_share/install/Oct2016/CHPS-5.4.1/`
 - 3.3.2. `$./ohd_core_install.sh dev oc </path/to/your/test/oc/Models/ohd>`
- 3.4. Test to make sure all workflows complete as expected. Raise any issues with CHPS Support Group through Redmine. Install on your Dev/Test FSS once satisfied with Dev/Test OC testing.

4. FEWS Forecast Shell Installation and Testing for **Dev/Test** purposes

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

- 4.1. Log in to your Dev/Test system's FSS machine (usually chps9) as user fews.
- 4.2. Make sure the FSS global properties file is pointing OHDBINDIR to the bin. The FSS global properties file can be found at /awips/chps_local/fss/xxrfc/FSSxx/FewsShell/xxrfc.
- 4.3. Run the install script with the following command to install.
 - 4.3.1. `$ cd /awips/chps_share/install/Oct2016/CHPS-5.4.1/`
 - 4.3.2. `$./ohd_core_install.sh fss`
- 4.4. Test to make sure all workflows complete as expected. Raise any issues with CHPS Support Group through Redmine.

5. Operator Client Installation for your **Operational systems**

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

- 5.1. Log in to an LX workstation as user fews.
- 5.2. Run the install script with the following command to install.
 - 5.2.1. `$ cd /awips/chps_share/install/Oct2016/CHPS-5.4.1/`
 - 5.2.2. `$./ohd_core_install.sh oc`
- 5.3. Create a link for the OHD FEWS plugins at the same level as the FEWS bin and jre.
 - 5.3.1. `$ cd /awips/chps_share/oc/<user>`
 - 5.3.2. `$ ln -s /awips/chps_share/ohd/plugins ohdPlugins`
- 5.4. Test to make sure all workflows complete as expected. Raise any issues with CHPS Support Group through Redmine. Install software on your FSS once satisfied with OC testing.

6. FEWS Forecast Shell Installation for your **Operational systems**

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 your **Secondary Operational system's FSS machine** (usually chps6) as user fews.
- 6.2. Run the install script with the following command to install.
 - 6.2.1. `$ cd /awips/chps_share/install/Oct2016/CHPS-5.4.1/`
 - 6.2.2. `$./ohd_core_install.sh fss`
- 6.3. Test to make sure all workflows complete as expected. Raise any issues with CHPS Support Group through Redmine.
- 6.4. Repeat steps 6.1 through 6.3, this time logging into your **Primary Operational system's FSS machine** (usually chps3)

Manual Installation Instructions

1. Retrieve and Install the OHD-CORE-CHPS-4.5.a package

- 1.1. Log in to CHPS3 as user *fews*. Navigate to the CHPS- 5.4.1 directory.
 - 1.1.1. `[fews@chps3] cd /awips/chps_share/install/Oct2016/CHPS-5.4.1/`
- 1.2. Untar the package (which was included in the CHPS- 5.4.1 tar file 'pushed' by AWIPS):
 - 1.2.1. `[fews@chps3] $ tar -xvpf OHD-CORE-CHPS-4.5.a.20161024.tar.gz -C .`
- 1.3. (optional) Edit the `fews_ohdPlugins.sh` script (located in `/awips/chps_share/install/Oct2016/CHPS- 5.4.1/OHD-CORE-CHPS-4.5.a/ohd/plugins`) to incorporate your current `-Xmx` values.
- 1.4. Check the OHD-CORE version on some of the models. Make sure it's at 4.5.a. Stop installation and contact CHPS Support Group if version differs. Note: This step must be done on `chps3`.
 - 1.4.1. `$ cd OHD-CORE-CHPS-4.5.a/ohd/bin`
 - 1.4.2. `$./resj -V`
- 1.5. From here on the path `/awips/chps_share/install/Oct2016/CHPS- 5.4.1/OHD-CORE-CHPS-4.5.a` will be referred to as `<4.5.a>`.
- 1.6. Once complete, you may move onto standalone installation and testing.

2. Standalone Installation and Testing

- 2.1. Log in to your Dev/Test system as user *fews*.
- 2.2. Create an up-to-date Standalone client for testing.
- 2.3. Make a link to point to the downloaded software inside the SA's Models directory. Edit the SA global properties file to point `OHDBINDIR` to the bin.
 - 2.3.1. `$ cd /awips/chps_share/sa/<user>/<new standalone>/Models/ohd`
 - 2.3.2. `$ rm bin`
 - 2.3.3. `$ ln -s <4.5.a>/ohd/bin bin`
- 2.4. Create a link for the OHD FEWS plugins at the same level as the FEWS bin and `jre`.
 - 2.4.1. `$ cd /awips/chps_share/sa/<user>/`
 - 2.4.2. `$ rm ohdPlugins`
 - 2.4.3. `$ ln -s <4.5.a>/ohd/plugins ohdPlugins`
- 2.5. Create a link for the EVS application at the same level as the FEWS bin and `jre`.
 - 2.5.1. `$ cd /awips/chps_share/sa/<user>/`
 - 2.5.2. `$ rm evs`
 - 2.5.3. `$ ln -s <4.5.a>/ohd/evs evs`
- 2.6. Test to make sure all workflows complete as expected. Raise any issues with CHPS 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 using a Dev/Test system. **Perform these actions using your Dev/Test OC Client.**

- 3.1. Log in to your system as user *fews*.
- 3.2. Verify that your Dev/Test OC client is set up properly for testing. (See the CHPS Support Group VLab article [https://vlab.ncep.noaa.gov/group/chps/wiki/-/wiki/How-Tos/Configure+an+OC+for+DevTest\(789\)+System](https://vlab.ncep.noaa.gov/group/chps/wiki/-/wiki/How-Tos/Configure+an+OC+for+DevTest(789)+System) on how to **Configure an OC for DevTest(789) system**).
- 3.3. Make a link to point to the downloaded OHD-CORE software under the OC's Models directory.

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- 3.3.1. `$ cd /awips/chps_share/oc/<user>/<DevTest operator client>/Models/ohd`
- 3.3.2. `$ rm bin`
- 3.3.3. `$ ln -s <4.5.a>/ohd/bin bin`
- 3.4. Make a link for the OHD FEWS plugins at the same level as the FEWS bin and jre.
 - 3.4.1. `$ cd /awips/chps_share/oc/<user>/`
 - 3.4.2. `$ rm ohdPlugins`
 - 3.4.3. `$ ln -s <4.5.a>/ohd/plugins ohdPlugins`
- 3.5. (optional) Make a link for the EVS application at the same level as the FEWS bin and jre.
 - 3.5.1. `$ cd /awips/chps_share/oc/<user>/`
 - 3.5.2. `$ rm -f evs`
 - 3.5.3. `$ ln -s <4.5.a>/ohd/evs evs`
- 3.6. Test to make sure all workflows complete as expected. Raise any issues with CHPS Support Group through Redmine. Install on your Dev/Test FSS once satisfied with Dev/Test OC testing.

4. FEWS Forecast Shell Installation and Testing for *Dev/Test* purposes

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

- 4.1. Log in to your Dev/Test system's FSS machine (usually chps9) as user fews.
- 4.2. Stop the FSSs.
 - 4.2.1. `$ cd /awips/chps_local/fss/??rfc/FSS00/mcproxy`
(?? is replaced with the 2 letter RFC acronym, e.g., ne)
 - 4.2.2. `$./mcproxy.sh stop`
- 4.3. Repeat step 4.2 for each FSS instance (FSS01, etc).
- 4.4. Check the current OHD version. If up-to-date, the version should be 4.4.a. Note: This step must be done on chps9 or on an LX workstation.
 - 4.4.1. `$ cd /awips/chps_local/ohd/`
 - 4.4.2. `$./bin/resj -V`
- 4.5. From `../chps_local/ohd/` make a backup of the current OHD files and install the new bin. Make sure the FSS global properties file is pointing OHDBINDIR to the bin. The FSS global properties file can be found at `/awips/chps_local/fss/xxrfc/FSSxx/FewsShell/xxrfc`.
 - 4.5.1. `$ mv bin bin_4.4.a`
 - 4.5.2. `$ cp -dR <4.5.a>/ohd/bin .`
- 4.6. From `../chps_local/ohd/` make a backup of the current OHD FEWS plugins (if it exists) and install the new plugins. Use the version number identified in step 4.4.2 above.
 - 4.6.1. `$ mv plugins plugins_4.4.a`
 - 4.6.2. `$ cp -dR <4.5.a>/ohd/plugins .`
- 4.7. From `../chps_local/ohd/` make a backup of the current OHD scripts (if it exists) and install the new scripts. Use the version number identified in step 4.4.2 above.
 - 4.7.1. `$ mv scripts scripts_4.4.a`
 - 4.7.2. `$ cp -dR <4.5.a>/ohd/scripts .`
- 4.8. (optional) From `../chps_local/ohd/` make a backup of the current EVS application (if it exists) and install the new EVS application. Use the version number identified in step 4.4.2 above.
 - 4.8.1. `$ mv evs evs_4.4.a`
 - 4.8.2. `$ cp -dR <4.5.a>/ohd/evs .`
- 4.9. Start the FSSs.
 - 4.9.1. `$ cd /awips/chps_local/fss/??rfc/FSS00/mcproxy`

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(?? is replaced with the 2 letter RFC acronym, e.g., ne)

4.9.2. `$./mcproxy.sh start`

4.10. Repeat step 4.9 for each FSS instance (FSS01, etc).

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

5. *Operator Client Installation for your **Operational systems***

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

5.1. Log in to an LX workstation as user `fews`.

5.2. Check the current version of the OHD software. If up-to-date, the version should be 4.4.a. Note: This step must be done on an LX workstation.

5.2.1. `$ cd /awips/chps_share/ohd/`

5.2.2. `$ bin/resj -V`

5.3. Make a backup of the current OHD files and install the new bin. Use the version number identified in step.

5.3.1. `$ mv bin bin_4.4.a`

5.3.2. `$ cp -dR <4.5.a>/ohd/bin .`

5.4. Make a backup of the current OHD FEWS plugins and install the new plugins. Use the version number identified in step 5.2.2.

5.4.1. `$ mv plugins plugins_4.4.a`

5.4.2. `$ cp -dR <4.5.a>/ohd/plugins .`

5.5. Make a backup of the current OHD scripts (if it exists) and install the new scripts. Use the version number identified in step 5.2.2.

5.5.1. `$ mv scripts scripts_4.4.a`

5.5.2. `$ cp -dR <4.5.a>/ohd/scripts .`

5.6. Make a backup of the current EVS application and install the new EVS application. Use the version number identified in step 5.2.2.

5.6.1. `$ mv evs evs_4.4.a`

5.6.2. `$ cp -dR <4.5.a>/ohd/evs .`

5.7. Create a link for the OHD FEWS plugins at the same level as the FEWS bin and jre.

5.7.1. `$ cd /awips/chps_share/oc/<user>`

5.7.2. `$ ln -s /awips/chps_share/ohd/plugins ohdPlugins`

5.8. Test to make sure all workflows complete as expected. Raise any issues with CHPS Support Group through Redmine. Install software on your FSS once satisfied with OC testing.

6. *FEWS Forecast Shell Installation for your **Operational systems***

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 your **Secondary Operational system's FSS machine** (usually `chps6`) as user `fews`.

6.2. Stop the FSSs.

6.2.1. `$ cd /awips/chps_local/fss/??rfc/FSS00/mcproxy`

(?? is replaced with the 2 letter RFC acronym, e.g., ne)

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- 6.2.2. `$./mcproxy.sh stop`
- 6.3. Repeat step 6.2 for each FSS instance (FSS01, etc).
- 6.4. Check the current version of the OHD software. If up-to-date, the version should be 4.4.a. Note: This step must be done on chps6 or on an LX workstation.
 - 6.4.1. `$ cd /awips/chps_local/ohd/`
 - 6.4.2. `$ bin/resj -V`
- 6.5. From `../chps_local/ohd/` make a backup of the current OHD files and install the new bin. Make sure the FSS global properties file is pointing OHDBINDIR to the bin. The FSS global properties file can be found at `/awips/chps_local/fss/xxrfc/FSSxx/FewsShell/xxrfc`.
 - 6.5.1. `$ mv bin bin_4.4.a`
 - 6.5.2. `$ cp -dR <4.5.a>/ohd/bin .`
- 6.6. From `../chps_local/ohd/` make a backup of the current OHD FEWS plugins and install the new plugins. Use the version number identified in step 6.4.2.
 - 6.6.1. `$ mv plugins plugins_4.4.a`
 - 6.6.2. `$ cp -dR <4.5.a>/ohd/plugins .`
- 6.7. From `../chps_local/ohd/` make a backup of the current OHD scripts (if it exists) and install the new scripts. Use the version number identified in step 6.4.2.
 - 6.7.1. `$ mv scripts scripts_4.4.a`
 - 6.7.2. `$ cp -dR <4.5.a>/ohd/scripts .`
- 6.8. From `../chps_local/ohd/` make a backup of the current EVS application and install the new EVS application. Use the version number identified in step 6.4.2.
 - 6.8.1. `$ mv evs evs_4.4.a`
 - 6.8.2. `$ cp -dR <4.5.a>/ohd/evs .`
- 6.9. Start the FSSs.
 - 6.9.1. `$ cd /awips/chps_local/fss/??rfc/FSS00/mcproxy`
(?? is replaced with the 2 letter RFC acronym, e.g., ne)
 - 6.9.2. `$./mcproxy.sh start`
- 6.10. Repeat step 6.9 for each FSS instance (FSS01, etc).
- 6.11. Test to make sure all workflows complete as expected. Raise any issues with CHPS Support Group through Redmine.
- 6.12. Repeat steps 6.1 through 6.10, this time logging into your **Primary Operational system's FSS machine** (usually chps3)

Rolling Back an OHD Release using the ohd_core_install.sh Script

In the case where the OHD release needs to be rolled back to a previous version:

1. For an SA, delete the new bin and plugin links, and restore the old links and references in your SA global properties to the previous release (i.e. bin_4.4.a). Run the script with the following command.
 - 1.1. `cd /awips/chps_share/install/Oct2016/CHPS-5.4.1/`
 - 1.2. `$./ohd_core_install.sh rollback sa </path/to/your/test/sa/Models/ohd>`
2. For an OC, delete the new bin and plugins directories, restore the old bin and plugins. Run the script with the following command.
 - 2.1. `cd /awips/chps_share/install/Oct2016/CHPS-5.4.1/`
 - 2.2. `$./ohd_core_install.sh rollback oc`
3. For your FSS, stop the shell servers, delete the new bin and plugins directories, restore the old bin and plugins. Finally, restart the shell servers. Run the script with the following command.
 - 3.1. `cd /awips/chps_share/install/Oct2016/CHPS-5.4.1/`
 - 3.2. `$./ohd_core_install.sh rollback fss`

Manually Rolling Back an OHD Release

In the case where the OHD release needs to be rolled back to a previous version:

4. For an SA, delete the new bin and plugin links, and restore the old links and references in your SA global properties to the previous release (i.e. bin_4.4.a).
 - 4.1. `$ cd /awips/chps_share/sa/<user>/<new standalone>/Models/ohd`
 - 4.2. `$ rm bin`
 - 4.3. `$ ln -s <4.4.a>/ohd/bin bin`
 - 4.4. `$ cd /awips/chps_share/sa/<user>/`
 - 4.5. `$ rm plugins`
 - 4.6. `$ ln -s <4.4.a>/ohd/plugins ohdPlugins`
5. For an OC, delete the new bin and plugins directories, restore the old bin and plugins.
 - 5.1. `$ cd /awips/chps_share/ohd/`
 - 5.2. `$ rm -r bin plugins`
 - 5.3. `$ mv bin_4.4.a bin`
 - 5.4. `$ mv plugins_4.4.a plugins`
 - 5.5. `$ mv scripts_4.4.a scripts`
 - 5.6. `$ mv evs_4.4.a evs`
6. For your FSS, stop the shell servers, delete the new bin and plugins directories, restore the old bin and plugins. Finally, restart the shell servers.
 - 6.1. Follow steps in 4.2 above to shut down the FSS. Do this for each FSS instance.
 - 6.2. `$ cd /awips/chps_local/ohd/`
 - 6.3. `$ rm -r bin plugins`
 - 6.4. `$ mv bin_4.4.a bin`
 - 6.5. `$ mv plugins_4.4.a plugins`

6.6. `$ mv scripts_4.4.a scripts`

6.7. `$ mv evs_4.4.a evs`

6.8. Follow steps in 4.9 above to restart the FSS. Do this for each FSS instance.