

2012-12-11

Objective

This document describes the steps to successfully install and configure the IRIS 3D View application on a Red Hat Enterprise Linux version 6 system. You need to log in as a root user to perform this installation.

Prerequisite

It is not necessary for the IRIS software to be installed on the system. If you chose to have the IRIS software on the same system, it is recommended that you install the IRIS software first, before installing IRIS 3D View.

Obtain the following RPMs and install in your system before you can install IRIS 3D View.

- libogg-devel-1.1.4-2.1.el6.i686.rpm
- libtheora-devel-1.1.0-2.el6.i686.rpm
- qtwebkit-2.1.1-1.el6.i686.rpm
- qt-mobility-1.1.3-2.el6.i686.rpm
- gl2ps-1.3.5-1.el6.i686.rpm
- gl2ps-devel-1.3.5-1.el6.i686.rpm
- compat-expat1-1.95.8-8.el6.i686.rpm
- expat-2.0.1-9.1.el6.i686.rpm
- expat-devel-2.0.1-9.1.el6.i686.rpm
- xorg-x11-apps-7.4-10.el6.i686
- xorg-x11-server-common-1.7.7-29.el6.i686.rpm
- xorg-x11-server-Xvfb-1.7.7-29.el6.i686.rpm
- vtk-5.8.0-6.el6.i686.rpm
- vtk-devel-5.8.0-6.el6.i686.rpm
- vtk-java-5.8.0-6.el6.i686.rpm
- vtk-python-5.8.0-6.el6.i686.rpm
- vtk-qt-5.8.0-6.el6.i686.rpm
- vtk-tcl-5.8.0-6.el6.i686.rpm
- acreoad-9.4.0-1.el6.i686.rpm
- acreoad-plugin-9.4.0-1.el6.i686.rpm

Install the above RPMs in the following order.

```
#rpm -Uvh libogg-devel-1.1.4-2.1.el6.i686.rpm
#rpm -Uvh libtheora-devel-1.1.0-2.el6.i686.rpm
#rpm -Uvh qtwebkit-2.1.1-1.el6.i686.rpm
#rpm -Uvh qt-mobility-1.1.3-2.el6.i686.rpm
#rpm -Uvh gl2ps-1.3*
#rpm -Uvh compat-expat1-1.95.8-8.el6.i686.rpm
#rpm -Uvh expat-2*
#rpm -Uvh xorg-x11*
#rpm -Uvh vtk*
#rpm -Uvh acreoad-9*
```

IRIS 3D VIEW INSTALLATION INSTRUCTIONS

2012-12-11

Installing IRIS 3D View

The IRIS 3D View application is delivered in an rpm package called `iris3dview-1.0.2-1.i686.rpm`. You will need to install it using the rpm installation tool. You must be logged in as a root user in order to run the rpm installation tool.

```
# rpm -Uvh iris3dview-1.0.2-1.i686.rpm
```

NOTE: It is recommended that you do not run the IRIS 3D View application while you are logged in as a root user. If you have the IRIS software installed on your system, log in as radarop user. If the IRIS software is not installed, you will need to create a user on your system.

To create a new user, use the GUI tool from **System>Administration>Users and Groups** and follow the online steps.

Post Installation

- 1) Log in as normal user and check `.config/Vaisala` directory for the following files:

```
IRIS3D.conf
IRIS3DColors.conf
IRIS3DLandmarks.conf
IRIS3DVisStyles.conf
```

If `.config/Vaisala` directory does not exist, you will need to create it and copy the files from `/etc/xdg/Vaisala`.

- 2) Do one of the following:

- If you have the IRIS software installed, create the following directories:

```
/usr/iris_data/data/geo           # for geo data
/usr/iris_data/data/2d            # for 2d data
/usr/iris_data/data/3d            # for 3d data
/usr/iris_data/data/background_output # for background images
processing results
```

The permissions and ownership for these directories are:

```
drwxrwsr-x. 2 operator users 4096 Dec 11 13:14 2d
drwxrwsr-x. 2 operator users 4096 Dec 11 13:15 3d
drwxrwsrwx. 2 operator users 4096 Dec 11 13:15 background_output
drwxrwsr-x. 2 operator users 4096 Dec 11 13:14 geo
```

- If you do not have the IRIS software installed, you can put your data directory anywhere you want, but make sure that you set the directories' permissions to read/write access.

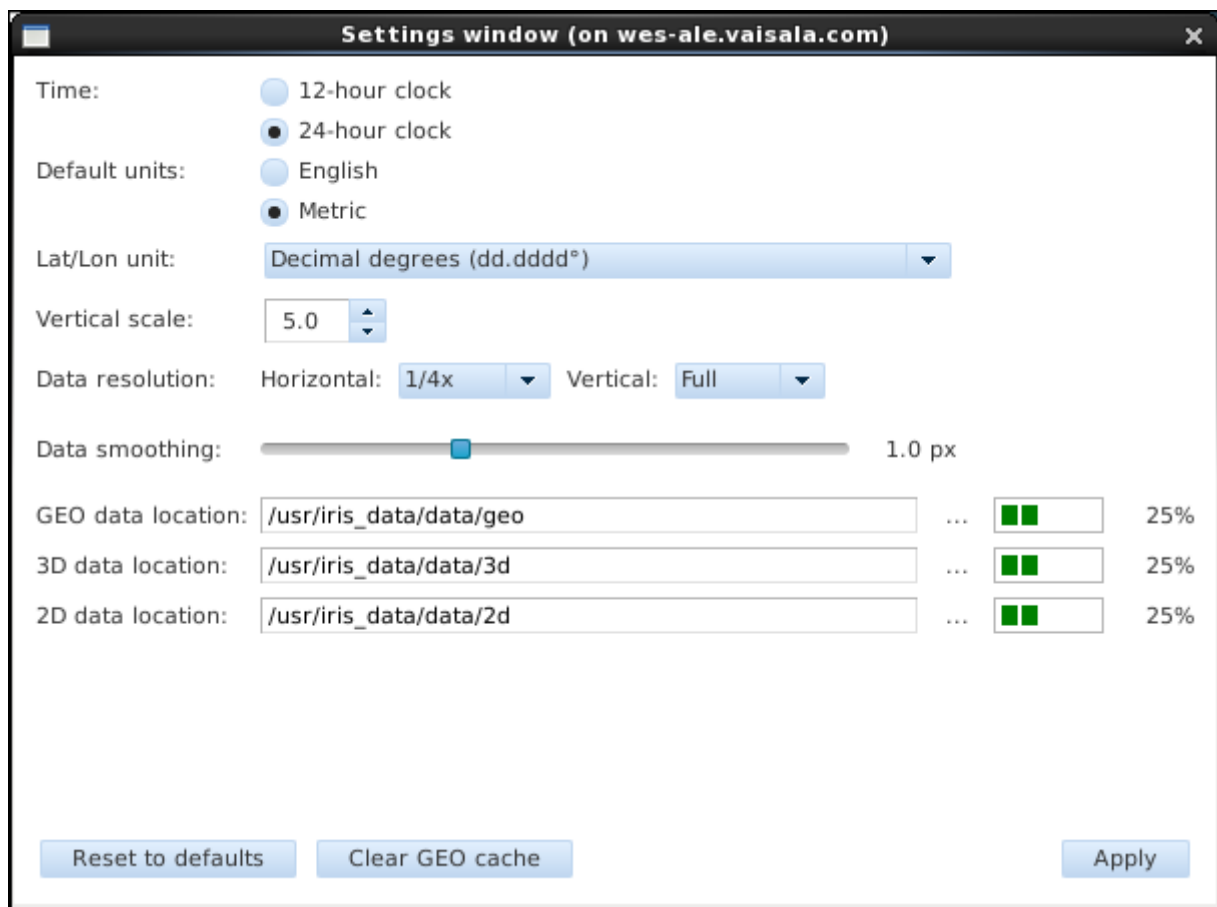
2012-12-11

3) Run IRIS 3D View visualization by typing:

```
/usr/bin/iris3dview &
```

The first time you start IRIS 3D View, it will ask you for a license key. Enter your license key and follow the online steps.

Once the IRIS 3D View window opens, click on the setup icon in the upper right hand corner to open the settings window. Here you will configure your data directory to point to the directories that you created in step 1, accordingly to your data type.



4) Configure the background processing. Background processing is run by the iris3d user; however, the user who runs the iris3d visualization needs to copy the configuration files to the .config directory of the iris3d user.

- To make it easy, you should set permissions for everybody to be able to read and write by running:

```
#chmod -R 777 /home/iris3d/ as root user.
```

- From the visualization window, click on **File-> Export tool**.

IRIS 3D VIEW INSTALLATION INSTRUCTIONS

2012-12-11

- c. From the export window, click on the **Background output** tab, and follow the online instructions to finish the setup.

Export window (on wes-ale.vaisala.com)

Snapshot

Background output

This tab is for controlling the background image generation process. When active, the background process automatically generates visualizations from incoming data into its output directory.

First define presets for display state and view angle in the main window, as well as product rendering settings using the product information tool. Then copy your settings to background process using the button below.

Copy settings to background

After you have copied settings to background, you can select active presets and set image parameters below. Note that preset lists come from background settings. Image generation starts when the check box is checked and the dialog accepted. If you do not have privileges to change background settings these fields are inactive.

☐ Activate background image generation.

Directory: ... ☐ 25%

Image: Format: Size: px

Display state:

View angle:

2D products: Reflectivity Radial velocity

Spectrum width Rainfall rate

Default settings

Cancel

Ok

2012-12-11

Checking Daemon

After installing the IRIS 3D View, the background processing daemon automatically starts. You can check the daemon by running the `ps -ef` command. For example:

`ps -ef | grep iris` , and you should get the printout similar to below:

```
iris3d      3432      1  0 13:24 ?                00:00:00 dbus-launch --
autolaunch 841d3b9bca80c846219d29fc00000022 --binary-syntax --close-
stderr
iris3d      3433      1  0 13:24 ?                00:00:00 /bin/dbus-daemon --fork
--print-pid 5 --print-address 7 --session
iris3d      3435      1  0 13:24 ?                00:00:00 /usr/bin/iris3dviewd --
loglevel=2 --daemon
```

If you need to restart the daemon, change to the root user by typing:

```
su root
```

You will be prompted for the password.

The stop and start the daemon by typing the following:

```
#!/sbin/service iris3dviewd stop
#!/sbin/service iris3dviewd start
```

Testing Background Processing

1. Make sure the background processing daemon is running.
2. Copy 3d data to the 3d directory that you configured.
3. Wait for a second and check the output file in output directory that you configured.

Modifying the Logging Level

You can set logging level to more details, like level 6, by editing the `/etc/sysconfig/iris3dviewd` and changing the `loglevel=2` to `OPTIONS="--loglevel=6 --daemon"`. After modifying the logging level, you need to restart daemon.

To check the logging, go to `/home/iris3d/` and open the `iris3dviewd.log` file. To view real-time logging messages while you are running background processing, run `tail -f iris3dviewd.log`.