# SR Research Software for Ubuntu

This document covers the instructions for configuring your Ubuntu system to receive packages from our SR Research software repository. From there, you can install and stay up-to with our latest releases including

- **EyeLink Developers Kit**

  - C API (eyelinkcore & eyelinkcoregraphics)

  - C Sample projects with SDL

  - PyLink for Python 2.5 to 3.4, with examples

  - C EDF Access API

  - edf2asc command line utility

  - Visual EDF Converter

- **EyeLink Data Viewer**

If you have any questions about the process, please do not hesitate to contact us on the support forums https://www.sr-support.com or via email at support@sr-research.com

The attached instructions will first help you identify and remove our older now-deprecated software repository and legacy software packages, then to setup and install software packages from our current software repository.

**\*Please note\*** On newer versions of Ubuntu 15 and newer, you may not have Ubuntu Software Center. You may have only Ubuntu's new tool, similarly named **Ubuntu Software**. The new tool **Ubuntu Software** does not display all packages from 3rd party vendors. So, we recommend that you install a different tool like the others we've mentioned above.

# 1 - Setting up our software repository

## 1.1 - Removing our old software repository.

We are migrating all of our Linux software releases to a new repository. Please remove all deprecated repositories.

We are no longer maintaining these repositories:

```
deb http://download.sr-support.com /
deb http://download.sr-support.com/x64 /
```

To remove these repositories from your Ubuntu software sources, please open the Unity search, and type "Software & Updates" open the applet, and go to the "Other Software" select and remove the old repositories (both the main entry, and the "Source Code" entry) and click remove.

## 1.2 - Removing old versions of the EyeLink Developers Kit

Depending on how you installed the previous version of the EyeLink Developers Kit, you may need to follow a few steps for completely removing all of our software.

In Ubuntu Software Center, search for "eyelink" and look for the primary package "eyelink-display-software-1.9".

Select this package, and click "Remove"
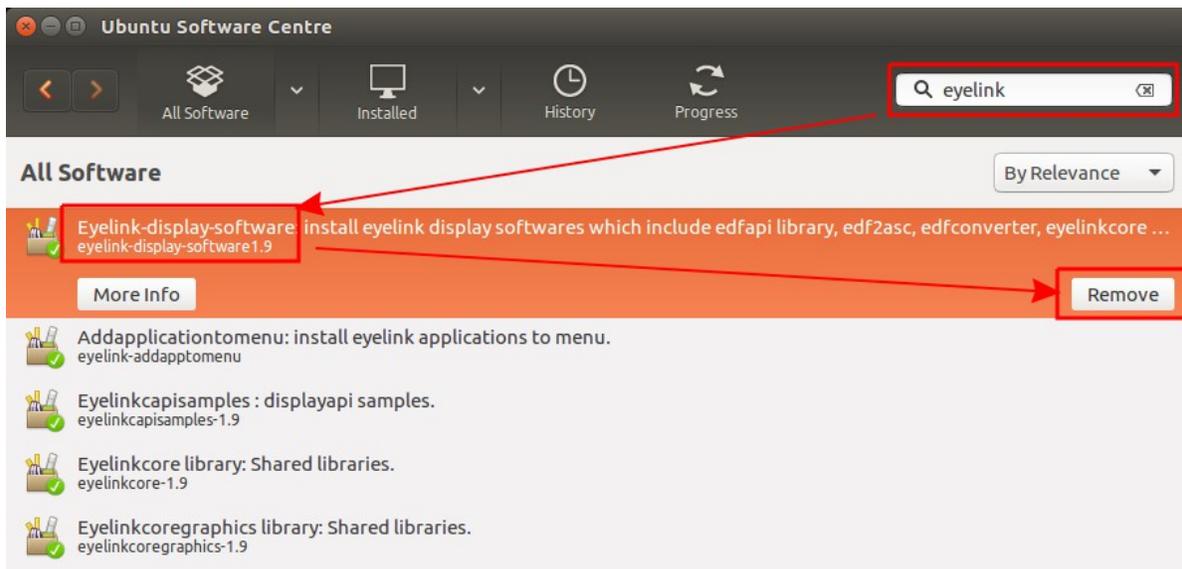


**Ubuntu Software Center must now be closed, and re-opened to refresh the list of installed software.** Depending on how you installed our packages previously, you may or may not have residual dependency packages still installed. So, after restarting Ubuntu Software Center, if you see some other eyelink packages still installed, they will have to be removed manually.
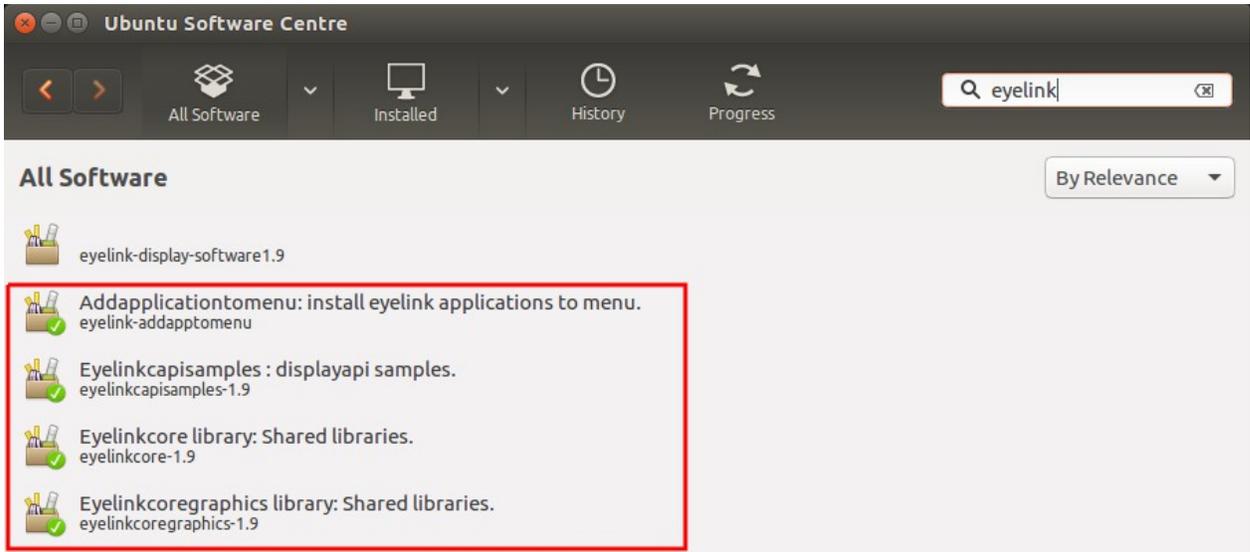
If your screen looks like the above screenshot, and you see that eyelink-display-software1.9 is uninstalled (no green check-mark on the entry), but other eyelink packages are still installed (shown in the red square), then you have to remove each package individually.

One at a time, select each entry and click the "Remove" button for these packages:

```
eyelink-addapptomenu
eyelinkcapisamples-1.9
eyelinkcore-1.9
eyelinkcoregraphics-1.9
```

Next, please check that our data handling packages are uninstalled. Please search for each of these following packages

```
edf2asc-3.1
edfapi-3.1
edfconverter-2.0
```

and make sure they are not installed. If any of these packages are installed, select each one and remove them one at a time.

After you have removed all EyeLink Developers Kit software packages, you are ready to proceed to adding our new software repository, and installing the new version 1.11 of this software.

## 1.3 - Adding our new software signing key, and software repository URL

In line with current software security conventions, we are now signing our software packages with a newer key that uses a stronger and up-to-date algorithm. This can be downloaded from:

http://download.sr-support.com/software/dists/SRResearch/SRResearch_key

Once downloaded to your machine, from the Software & Updates applet > Authentication tab, please click the "Import Key File" button and select the key file you downloaded form the above link. After adding this key, you should see the entry below with the 2016 date:
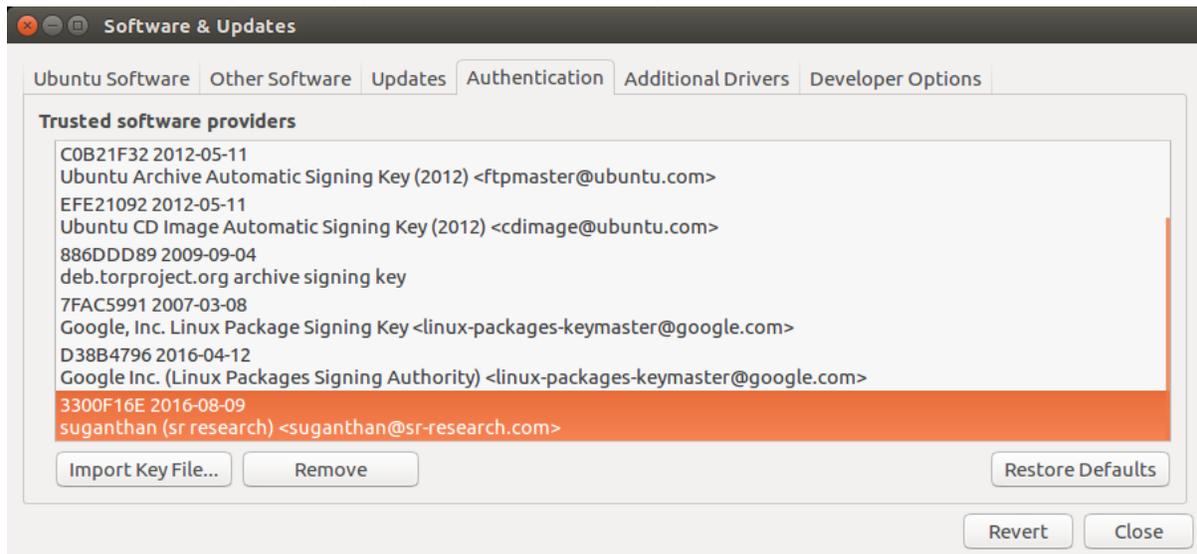


Once the new software signing key is added, you can proceed to adding our new repository link.



Open the "Other Software" and click the "Add" button. In the "APT line" text box, please type the following entry and click "Add Source":

deb http://download.sr-support.com/software SRResearch main



Please enable only the APT line for the main repository, and leave the line entry for the (Source code) entry disabled:

## 1.4 - Installing the latest release of the EyeLink Developers Kit

**Attention Ubuntu 12.04 x86 (aka i386 or 32-bit) users ONLY**
You must first install a few external dependencies that are not available through the main Ubuntu software repositories for release. You **DO NOT** have to do this if you are on an x64 version of 12.04, or any other of our supported versions of Ubuntu.

Please download these two packages:

http://mirrors.kernel.org/ubuntu/pool/universe/s/sdlgfx/libsdl-gfx1.2-4_2.0.23-1_i386.deb
http://mirrors.kernel.org/ubuntu/pool/universe/s/sdlgfx/libsdl-gfx1.2-dev_2.0.23-1_i386.deb

We'd reccomend that you install these packages from the command line using these commands, as the last command assures that all dependencies of these two packages are also resolved and installed.

```
sudo dpkg -i libsdl-gfx1.2-4_2.0.23-1_i386.deb
sudo dpkg -i libsdl-gfx1.2-dev_2.0.23-1_i386.deb
sudo apt-get -f install
```

**Installation process for supported versions of Ubuntu**

Ubuntu Linux changes frequently. We aim to maintain compatibility with the latest LTS release of Ubuntu (currently 18.04). While our software may work on older LTS and older/newer non-LTS releases, we cannot guarantee compatibility. If you experience any problems, please contact us at support@sr-research.com with information about your configuration (Linux distribution, version, and system architecture) and we'll do our best to help.

You may now open up your Ubuntu Software Center, and search for eyelink to see a list of available packages.

Look for the package named eyelink-display-software

You need to install only this one package to set up your computer with the EyeLink Developers Kit. This main package will in turn install the required dependency packages automatically.

The package is named only eyelink-display-software with no version number suffixing the package name. **If you still see the old version eyelink-display-software1.9 package listed in Ubuntu Software Center, please reboot your machine to refresh the current list of available packages.**

Select only the main package **eyelink-display-software**, and click the Install button.

**\*Please Note**\* If you using a recent 64-bit version of Linux, you might see a few packages including those intended for 32-bit distributions. Please do not install these packages that are suffixed with :i386
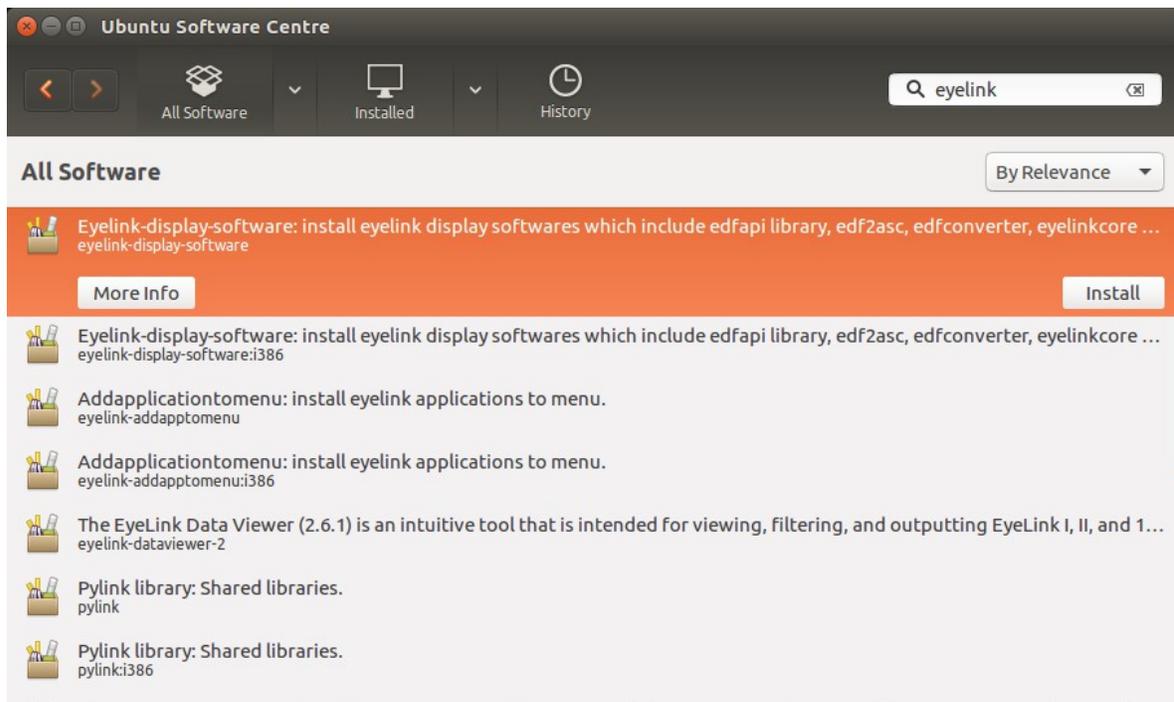
The EyeLink Developers Kit files that are useful to the end-user are installed to:
```
/usr/share/EyeLink
```

With HTML documentation of our API found in:
```
/usr/share/Eyelinkcore
```

EDF API files are located in:
```
/usr/share/edfapi
```

Pylink libraries are installed automatically as a part of the EyeLink Developers Kit in:
```
/usr/share/EyeLink/pylink
```

Pylink support should be installed and set-up automatically for most versions of Python from 2.3 to 3.4 that are already installed in native system paths at the time of installing the EyeLink Developers Kit. Our pylink installation script should detect these Python installations and automatically make pylink symlinks in the site-packages folder for all detected versions of Python to the pylink libraries, for example:

```
/usr/local/lib/pythonX.X/site-packages/pylink ->
/usr/share/EyeLink/pylink/pylinkX.X
```

or

```
/usr/lib/pythonX.X/site-packages/pylink ->
/usr/share/EyeLink/pylink/pylinkX.X
```

Pylink example codes can be found in
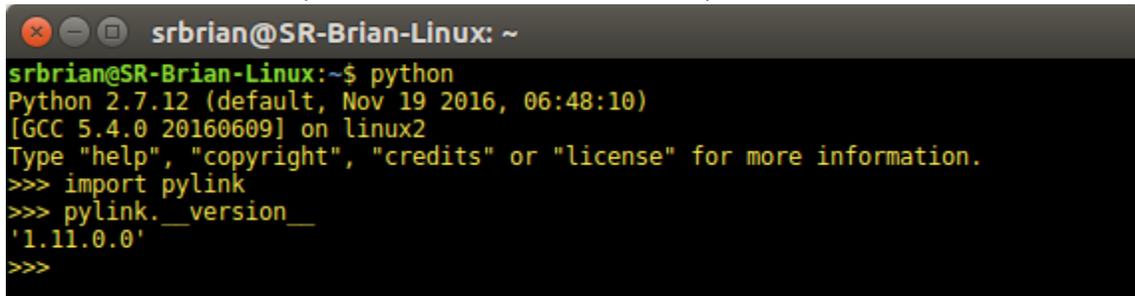
```
/usr/share/EyeLink/pylink/examples
```

To test the pylink installation, open the python command line editor and type

`import pylink`

and then

`pylink.__version__`

You should see no errors, and a version number 1.11.0.0, like this:



**\*\*Please note\*\*** Do not attempt to install pylink using the tool **pip**. This will incorrectly install an unrelated general network communications stack also named pylink, which is from another package maintainer and otherwise has nothing to do with SR Research or EyeLink eye trackers. If you see the version number print as 0.3.2, you have the wrong pylink package installed, and you must remove it from your Python libraries.

## 1.5 - Installing the latest release of EyeLink DataViewer

### 1.5.1 - Installing DataViewer:
The most recent release of DataViewer can be installed with the package named:

```
eyelink-dataviewer
```

With the release of DataViewer 4.1.1 only x64 releases are available, there is no longer a dependency on a system installation of Java, and the HASP license driver package (aksusbd) is also installed automatically from our repository.

Depending which package management software is being used, it is possible that you might see both the latest release and legacy packages listed for x64 and x86 (i386).

For example:
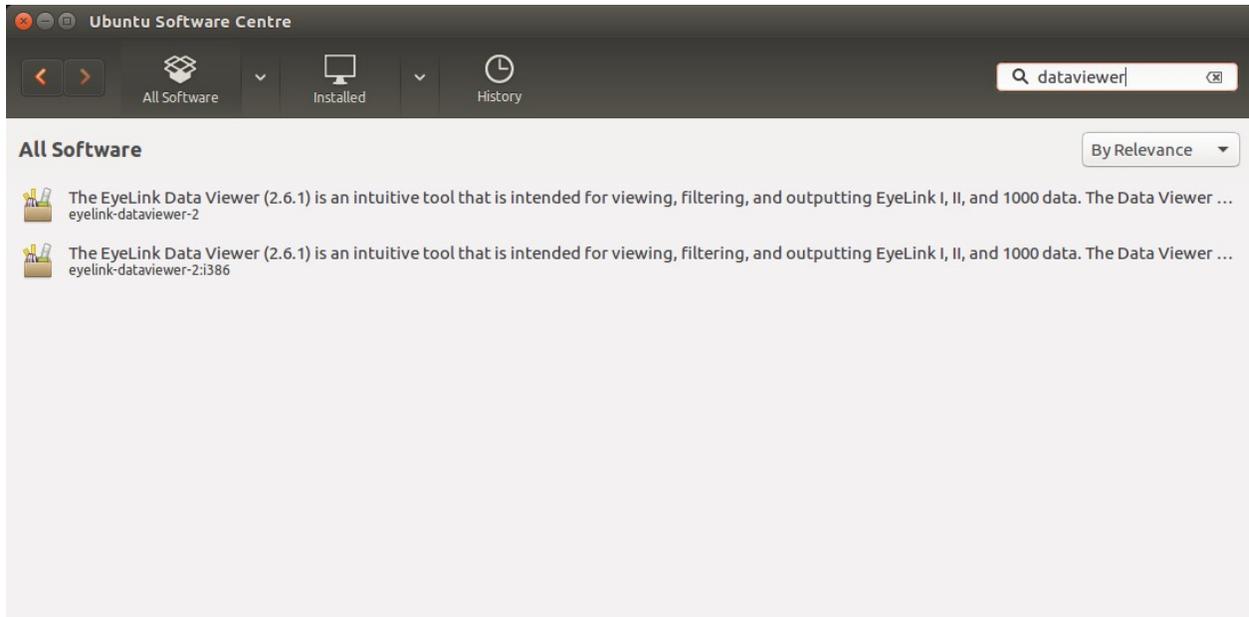


Please be sure to pick the correct package that matches your system architecture.

After Data Viewer is installed, it should update automatically as we release new versions along with your other packages, or by running:

```
sudo apt-get update
sudo apt-get dist-upgrade
```

**1.5.2 - Legacy versions of DataViewer:**
Users who require DataViewer as an x86 package will require the final 3.x series release of DataViewer 3.2.48. Accessing our repository and `eyelink-dataviewer` package from an Ubuntu x86 environment will install this legacy package.

DataViewer 3.2.48 x86 requires additionally that you install Oracle Java 8. Please consult the documentation related to your specific version of Ubuntu for instructions about this process. Oracle's new terms of licensing (April 2019) now stipulate the requirement of an Oracle account for downloading their Java installation files.

For users who wish to use the final 2.x series release of DataViewer 2.6.1, this version can be installed using the package:

```
eyelink-dataviewer-2
```

Data Viewer 2.6.1 requires the installation of Oracle Java 7 that can be requested by contacting Oracle directly. It is also required that you manually install the HASP license driver package `aksusbd`