

LogIT SensorLab™ Installation on Linux

SCC Research

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Overview

SensorLab has been tested on a number of popular Linux distributions, but due to the many variants available we can not guarantee operation on all of them. Also it has not been practical to test every new release of SensorLab on each previously documented Linux distribution. It is therefore possible that the latests release of SensorLab will not work as described in this document.

Below are general instructions for SensorLab installation, activation, configuration and removal. Following these general instructions there are specific instructions for some Linux distributions.

It is highly recommended that you read the general instructions even if this document contains specific instructions for the Linux distribution you are using.

You should ensure your Linux installation has all the latest updates applied before installing SensorLab.

Manager Mode

If SensorLab's setting "Manager mode" is not selected, some features are hidden from the user. This includes some of the features described below, such as access to the Administrator's Settings and Software Activation. To access these features when Manager mode is disabled, press the key combination Shift/Ctrl/Alt/T and enable Manager mode.

General Installation Instructions

SensorLab is supplied in an archive file (.tgz). The SensorLab files will need to be extracted from this archive before installation can begin. This can usually be done by locating the SensorLab tgz file (eg. "SensorLab 1.0.0 for Linux.tgz") and clicking on it. Select Extract and locate a suitable temporary location, such as your Documents folder. After extraction, the selected folder will contain all the files, folders and documentation for SensorLab.

The folder "Program" contains all the program files and usually allows SensorLab to be run, without installation, by clicking on the SensorLab icon. At this point it is unlikely the program will be able to communicate with a data logger, due to restrictions on Serial and USB ports. This is described below. The files in this folder also allow manual installation, should it be required.

The folder "Installer" contains installation packages. SensorLab is supplied as packages in both DEB and RPM formats.

The folder "Resources" contains extra bits and pieces, such as example data files.

The software can be installed with or without the data logging hardware connected.

SensorLab consists of three packages:

- sccresearch-sensorlab
- sccresearch-serialrules
- sccresearch-usbrules

The main program is called SensorLab, while the other two packages contain rules which control access to Serial and USB devices. The main program will run without the Rules being installed, but it may not have access to the Serial and USB ports and will therefore fail to find a data logger or sensors. In some cases the rules are not required, but do no harm if installed.

The packages (DEB or RPM) can usually just be installed in the normal way, by clicking on them. However, some systems do cause a few problems, as detailed below:

You may require an internet connection for system updates.

You may require an up to date Linux installation, not just one installed from the distribution disk. It is highly recommended that your Linux system has all the latest updates applied before installing SensorLab.

Some systems require the DEB or RPM files to be copied to the local hard disk before running them. If run from USB Flash or from CD they may report errors.

Some systems require the DEB or RPM files to be executed from the command line. If run by clicking on the files they may report errors.

After installing the SensorLab program it may be necessary to restart the computer before the main Applications menu is fully updated.

After installing the Rules packages it may be necessary to restart the computer before SensorLab can access the Serial and USB ports. In the case of USB, it may only be necessary to disconnect and reconnect the USB device in order for the rules to be applied.

Some systems have special 'easy to use' desktops. Some of these restrict features and have special mechanisms for adding program icons. To run SensorLab on some of these systems it may not be practical to add the SensorLab program icon to the system, in which case it will be necessary to locate and start the SensorLab program using the system's file manager.

General Activation Instructions

Version 1.0 of SensorLab runs in Evaluation mode until activated. Evaluation mode has restrictions such as logging being limited to just a few minutes and printouts being defaced.

Version 1.1 of SensorLab, which adds support for uLog USB sensors, comes pre-activated for uLog with a single user licence, so activation will only be required if you have other loggers or a site licence. When other loggers are connected SensorLab operates in evaluation mode until activated.

The printed SensorLab licence document, which is supplied with the SensorLab CD, provides details about your activation code.

SensorLab is activated by entering the activation code when SensorLab offers the option or by selecting SensorLab's menu item: File, Administrator, Software Activation.

After the Licence terms have been accepted, the software presents a form to enter your name, organisation and post/zip code. Once these are filled in you can enter the activation code and select Apply.

More than one activation code can be entered in this way. For example, if you have a single user code and also a site licence upgrade code, you will need to enter one and then the other.

Activation codes are stored in a licence file. This is normally only accessible to the user who creates

it. To make this available to all users of the computer it needs to be copied to a central location, where it can be shared by all users. These two files are:

- Private licence file = /home/<username>/.SensorLab/Licence.txt
- Shared licence file = /etc/SensorLab/Licence.txt

To copy this file you typically need to type these commands using the system's Terminal program:

```
su
mkdir /etc/SensorLab
cp /home/<username>/.SensorLab/Licence.txt /etc/SensorLab
```

You will be prompted for the root/administrator password when you enter the 'su' command.

If the setting “Manager mode” is not selected, some features are hidden from the user. This includes access to Software Activation. To access these settings when Manager mode is disabled, press the key combination Shift/Ctrl/Alt/T and enable Manager mode.

General Configuration Instructions

The Administrator's Settings dialogue enables default settings to be saved. This dialogue is available from the File, Administrator menu.

Settings are stored in a text file. This is normally only accessible to the user who creates it. To make this available to all users of the computer, and thus provide default settings for all users, it needs to be copied to a central location, where it can be shared by all users. These two files are:

- Private settings file = /home/<username>/.SensorLab/Settings.txt
- Shared settings file = /etc/SensorLab/Settings.txt

To copy this file you typically need to type these commands using the system's Terminal program:

```
su
mkdir /etc/SensorLab
cp /home/<username>/.SensorLab/Settings.txt /etc/SensorLab
```

You will be prompted for the root/administrator password when you enter the 'su' command.

If the settings option “Allow users to save options” is selected, users can save their own preferences using the Options dialogue, available from the Tools menu. If this option is not set, users can only change their options for the current session. These options are saved in the file:

- Private options file = /home/<username>/.SensorLab/Options.txt

If the setting “Manager mode” is not selected, some features are hidden from the user. This includes access to the Administrator's Settings. To access these settings when Manager mode is disabled, press the key combination Shift/Ctrl/Alt/T and enable Manager mode.

General Removal Instructions

SensorLab can generally be removed by using the software or package management tools which are included as part of most Linux distributions. These are often called “Add/Remove Software” or something like “Package Manager”.

Start the software management tool and search for applications which include “sccresearch” in the name. You could just search for “sensorlab” but this will only find the SensorLab program and not the Rules files which control USB and Serial port access.

Deselect (un-tick) the packages you want to remove, typically:

- sccresearch-sensorlab
- sccresearch-serialrules
- sccresearch-usbrules

Then click on the OK/Accept/Remove button.

After removing the SensorLab program it may be necessary to restart the computer before the main Applications menu is fully updated.

Desktop Themes

Most Linux distributions offer a range of desktop themes or appearance styles. Some of these cause visual problems in SensorLab, such as:

- unavailable toolbar icons are difficult to see clearly
- toolbars and sidebars have visible frames around them
- toolbar and sidebar icons and labels can be clipped

The default themes are usually among the best available and usually work well with SensorLab. The more exotic variants tend to cause the problems. Sticking with the defaults is recommended.

Compatibility Summary

The following table indicates compatibility with all Linux distributions we have tested. The version of SensorLab tested is shown in brackets. It has not been practical to test all versions of SensorLab with all distributions of Linux or even to retest all releases of SensorLab with previously tested and documented Linux distributions. The following summary can therefore only be taken as a guide to compatibility.

SensorLab version 0.8.1 is virtually identical to first production release (version 1.0.0). It is therefore likely that SensorLab versions 1.0.x will work as documented here (up to 1.0.7 where significant changes were made to SensorLab).

SensorLab version 1.0.18 is virtually identical to version 1.1.0, which adds uLog USB sensor support. Many changes were made during the addition of uLog so it is quite possible tests performed before v1.0.18 of SensorLab do not mean that later versions are compatible or work as documented here, especially in areas relating to USB.

A compatibility summary table is included on the next page.

Compatibility Summary Table

Distribution	Desktop	Compatibility	Notes
Asus Eee Linux 1	Asus	None (v1.0.0)	USB loggers not found. System corrupted.
CentOS 5	Gnome	Good (v1.0.0)	
Debian 5	Gnome	Good (v0.8.1)	
Fedora 9	Gnome	Good (v0.8.1)	
Fedora 12	Gnome	Good (v0.8.1)	
Knoppix 5	KDE	Modest (v1.0.0)	Does not look very good.
Linpus Lite 1	Xfce	Modest (v0.8.1)	Problems creating desktop icon.
Mandriva 2008	KDE	Good (v0.8.1)	
Mandriva 2010	KDE	Good (v1.0.0)	
Mint 8	Gnome	Good (v1.0.0)	
OpenSUSE 11	KDE	Good (v0.8.1)	
PCLinuxOS 2009	Xfce	Modest (v1.0.0)	Does not look very good.
Puppy Linux 4	JWM	Poor (v1.0.0)	Difficult to install.
Ubuntu 8	Gnome	Good (v0.8.1)	
Ubuntu 9	Gnome	Good (v1.0.0)	
Ubuntu 9	Gnome	Good (v1.0.18)	
Xubuntu 9	Xfce	Good (v1.0.0)	

Technical Notes and Troubleshooting

The following notes provide additional background information and may help with troubleshooting.

Always ensure you have the latest updates applied to your Linux distribution.

From SensorLab v1.0.18 older USB data loggers, prior to uLog USB sensors in 2011, use HIDDEV for USB support, while uLog uses LIBUSB (v1.0 or 0.1). Older loggers use 8-byte packets while uLog uses 64-byte packets. Support for 64-byte packets has been added via LIBUSB.

LIBUSB v0.1 may not work well everywhere so v1.0 is highly recommended. Version 1.0 of LIBUSB has not currently been set as a dependency to avoid causing installation problems on older Linux distributions.

You can usually check that SensorLab is linked to LIBUSB with the command “`ls -l | grep libusb`”.

You can usually install LIBUSB v1.0 with the package management tools included with most Linux distributions. A recent Linux distribution with all updates applied will likely already include LIBUSB v1.0.

Asus Eee Linux 1 (on Asus Eee PC 701 Netbook)

System: Asus Eee Linux (based on Xandros)
SensorLab: Version 1.0.0 for Linux using DEB files
Computer: Asus Eee PC 701

Do NOT attempt to install SensorLab on this computer system

We were unable to get this system to communicate with USB data loggers. At this point there is no solution to the problem. Worse still, removing the software rendered the system unusable and required a full restore from backup. An alternative Linux distribution might be worth considering. Linux Mint 8 works well on our Acer Aspire One netbook model AOA 110-Ab.

The following instructions apply to the Asus Eee PC 701 netbook computer with Asus Linux software version 1.0.1, as supplied new. No system updates had been applied.

Installation

Copy CD files to a USB flash drive. Alternatively, connect an external CD reader or make files available over a network or downloaded SensorLab files from the logitworld web site.

Inserted USB flash drive. Select "Open in File Manager" from dialogue presented.

The File Manger window should open. Located the SensorLab tgz file. eg. "SensorLab 1-0-0 for Linux.tgz". Right click on this file and select "Extract All". Select the destination "My Documents".

Using the File Manger, locate the SensorLab Installation files in My Documents.

Right click on the SensorLab DEB file (eg. "sccresearch-sensorlab_1.0.0_i386.deb") and select "Install DEB File". Entered Administrator password. After a few seconds the Installation Complete notification should be shown.

Repeat the above for the USB rules. These seem to be installed correctly, but USB loggers are not detected by SensorLab. The Linux "lsusb" command indicates the presence of the logger. At this point it is unclear why the program can not find USB loggers.

The SensorLab program icon appears in Work tab after a system restart. Single click on the SensorLab icon to start program.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, press the key combination Ctrl/Alt/T to open the Terminal window.

Type "su" and press enter.

Type the administrator password and press enter.

Type "dpkg -r sccresearch-sensorlab" and press enter.

Type "dpkg -r sccresearch-usbrules" and press enter.

CentOS 5

System: CentOS 5.4 with Gnome 2.16.0 desktop
SensorLab: Version 1.0.0 for Linux using RPM files
Computer: Desktop (x86 compatible processor)

Installation

Extract tgz file to hard disk, as described in the general installation instructions.

Locate the SensorLab RPM file (eg. “sccresearch-sensorlab_1-0-0_i386.rpm”), in the folder “Installer”, and double click on it. Click Apply. If warned of the risk of malicious software, confirm installation. This may request a root/administrator password.

The SensorLab program should now appear on the Applications menu, Education sub-menu. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.rpm”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.rpm”).

You may need to restart the computer before the program will find your data logger and sensors.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select Applications, Add/Remove Software from the main system menu. Select the Search tab. Enter “sccresearch” in the text box and click the Search button. Deselect (un-tick) each package you want to remove from the system. eg. sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules. Click on the Apply button. Confirm selection. This may request a root/administrator password.

Debian 5

System: Debian 5.0.1 with Gnome 2.22.3 desktop
SensorLab: Version 0.8.1 for Linux using DEB files
Computer: Desktop (x86 compatible processor)

Installation

It may be necessary to install GDebi on the system, before installing SensorLab. To do this select Add/Remove Applications from the System, Administration menu.

If clicking on the SensorLab DEB files gives the error “Archive type not supported”, use the Root Terminal command:

```
dpkg -i <file>
```

Where <file> is the required DEB file. (eg. “sccresearch-sensorlab-1-0-0-i386.deb”)

Root Terminal is available from the Applications, Accessories menu.

It may be necessary to navigate to the folder containing the DEB files before using this command.

This should install SensorLab in Applications, Science menu.

Repeat the above for the USB Rules file. Serial ports appear accessible by default, so it may not be necessary to install the Serial Rules.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select System, Administration, Synaptic Package Manager. Enter “sccresearch” in the find box. Click on sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules, and select Mark for Removal. Then click Apply.

Fedora 9

System: Fedora 9 (Sulphur) with Gnome 2.22.1 desktop
SensorLab: Version 0.8.1 for Linux using RPM files
Computer: Desktop (x86 compatible processor)

Installation

Extract tgz file to hard disk, as described in the general installation instructions.

If Fedora installation is up to date:

Locate the SensorLab RPM file (eg. “sccresearch-sensorlab_1-0-0_i386.rpm”), in the folder “Installer”, and double click on it. Confirm this action if asked. If warned of the risk of malicious software, confirm installation. This will request a root/administrator password.

If the Fedora installation is not up to date (if the above method did not work):

Use the Terminal, available from the main Applications menu, System Tools sub-menu. Navigate to the folder containing the RPM files and type these commands:

```
su  
rpm -i <file>
```

Where <file> is the required RPM file. (eg. “sccresearch-sensorlab-1-0-0-i386.rpm”)

You will be prompted for the root/administrator password when you enter the 'su' command.

The SensorLab program should now appear on the Applications menu, Education sub-menu. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.rpm”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.rpm”).

You may need to restart the computer before the program will find your data logger and sensors.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select System, Administration, Add/Remove Software from the main system menu. Enter “sccresearch” in the find box and click the Find button. Deselect (un-tick) each package you want to remove from the system. eg. sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules. Click on the Apply button. Enter the root/administrator password.

Fedora 12

System: Fedora12 (Constantine) with Gnome 2.28.0 desktop
SensorLab: Version 1.0.0 for Linux using RPM files
Computer: Desktop (x86 compatible processor)

Installation

Extract tgz file to hard disk, as described in the general installation instructions.

Locate the SensorLab RPM file (eg. “sccresearch-sensorlab_1-0-0_i386.rpm”), in the folder “Installer”, and double click on it. Confirm this action if asked. This will request a root/administrator password.

The SensorLab program should now appear on the Applications menu, Education sub-menu. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.rpm”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.rpm”).

You may need to restart the computer before the program will find your data logger and sensors.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select System, Administration, Add/Remove Software from the main system menu. Enter “sccresearch” in the find box and click the Find button. Deselect (un-tick) each package you want to remove from the system. eg. sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules. Click on the Apply button. Enter the root/administrator password.

Knoppix 5

System: Knoppix 5.1 (i686) with KDE 3.5.5 desktop
SensorLab: Version 1.0.0 for Linux using DEB files
Computer: Desktop (x86 compatible processor)

SensorLab toolbars and sidebars do not look very good on this Linux distribution as undesirable frames are shown around each of these areas. This appears to be the case regardless of the desktop theme selected. This is not a disaster, but it is not how the program is intended to look.

Installation

Extract `tgz` file to hard disk, as described in the general installation instructions.

Locate the SensorLab DEB file (eg. “`sccresearch-sensorlab_1-0-0_i386.deb`”), in the folder “`Installer`”, and click on it. The package manager dialogue opens. Click on the `Install` button. The install dialogue opens. Click on the `Install` button. This will request a root/administrator password.

The SensorLab program should then appear on the Knoppix menu in the `Edutainment, Sciences` menu. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “`sccresearch-serialrules_1-0-0_all.deb`”) and the USB rules (eg. “`sccresearch-usbrules_1-0-0_all.deb`”). The serial port(s) appear to be accessible without installing the Serial rules.

You may need to restart the computer before the program will find your data logger and sensors.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select `Synaptic Package Manager` from the Knoppix `System` menu. Enter root/administrator password when prompted. Click on the `Search` button and enter “`sccresearch`”. Click on the square icon next to each package to be removed and select `Mark for Removal`. eg. `sccresearch-sensorlab` and/or `sccresearch-serialrules` and/or `sccresearch-usbrules`. Then click on the `Apply` button. Confirm `Apply`.

Linpus Linux Lite 1 (on Acer Aspire One Netbook)

System: Linpus Linux Lite 1.0.21.E with Xfce 4.4.2 desktop
SensorLab: Version 0.8.1 for Linux using RPM files
Computer: Acer Aspire One model AOA 110-Ab

The system described here is an Acer Aspire One netbook computer, model AOA 110-Ab, with the supplied Linpus Linux Lite operating system, as purchased in May 2009. This system has a nice simple graphical user interface. Unfortunately this is quite restrictive and does not allow third party software to be easily installed. A different Linux distribution might be worth considering. Linux Mint 8 has a more typical desktop environment and seems to work well on the Acer Aspire One.

To enable the advanced features required to install SensorLab, follow the instructions below.

From the System home screen press the key Alt and F2 together. This opens the “Run program” dialogue. An alternative is to select My Documents and then select Terminal from the Files menu.

Type the command **xfce-setting-show** and press Enter. This opens the “Xfce Settings Manager” dialogue.

Click on the Desktop icon. This displays the “Desktop Preferences” dialogue.

Select the Behaviour tab and tick the “Show desktop menu on right click” option. Click the Close button or press the Enter key.

From the System home screen the right mouse button now displays the System menu.

There is much more you can do to modify the way the system works. Try searching the internet for for “xfce-session.rc Aspire”.

Installation

These instructions assume you have enabled advanced mode as described above.

With the SensorLab distribution files on a USB Flash drive, plug in the drive. A window should open showing the files on the Flash drive. If not, click on My Documents and select the Flash drive.

Locate the SensorLab tgz file (eg. “SensorLab 1.0.0 for Linux.tgz”) and double click on it. Select Extract and locate a suitable temporary location, such as a newly created folder in Documents.

Currently there seems to be a problem extracting SensorLab on this system. An error is reported during extraction. Most of the files are extracted, but the folder structure is lost. The important RPM files are there, in a big list of other files. Because of this problem it might be better to extract the files on another Linux system, and copy them to a USB Flash drive.

Locate the SensorLab RPM package files and double click on the SensorLab program package (eg. “sccresearch-sensorlab-0-8-1-i386.rpm”). Enter the root/administrator password. The Installing Packages dialogue should then be displayed. Click on the Apply button to install the software. If warned of the risk of malicious software, click Install Anyway.

To install the USB rules, repeat the above for the USB rules file (eg. “sccresearch-usbrules_1-0-0_all.rpm”). If you have a USB logger connected, reconnect it after installation.

The program is now installed but does not appear on the System menu or the System home page.

To add SensorLab to the System menu, open the System menu by right clicking on the home screen. Select Settings, Menu Editor. Select Add entry. Enter the name “SensorLab”. Enter command “/usr/share/sccresearch-sensorlab/SensorLab”, or browse to find this file. Click on the Icon button and select the “sccresearch-sensorlab” icon. Click OK. Click on the Save button. Close the Menu Editor dialogue. The SensorLab program should now be on the System menu.

An alternative to adding SensorLab to the *hidden* System menu, is to create a short cut to the program and put this somewhere easy to find, like the Documents folder.

It is apparently possible to add program icons to the System home page, but this is not straight forward. The process involves editing the file “/home/user/.config/xfce4/desktop/group-app.xml”. This has to be done with great care or the system can be rendered unusable. This happened to us twice before we gave up. Search the internet for examples of how to do this – if you are willing to take the chance of needing to reload the operating system!

Activation

SensorLab will run in Evaluation mode until activated.

The printed SensorLab licence document, which is supplied with the SensorLab CD, provides details about your activation code.

Activate SensorLab by entering the activation code when SensorLab offers the option or by selecting SensorLab's menu item: File, Administrator, Software Activation.

Removal

These instructions assume you have enabled advanced mode as described above.

The following may need an internet connection.

To remove SensorLab from the computer, right click on the System home screen and select System, Add/Remove Software from the menu. Enter the root/administrator password. Select the Search tab and enter either “sccresearch”. Click on the Search button. Deselect (un-tick) each package you want to remove from the system. eg. sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules. Click on the Apply button. Confirm this action if asked.

If you have customised the System menu, you may need to clean this up by the same method you used to customise it.

Mandriva 2008

System: Mandriva 2008.1 (Spring) with KDE 3.5.9 desktop
SensorLab: Version 0.8.1 for Linux using RPM files
Computer: Desktop (x86 compatible processor)

Installation

Extract tgz file to hard disk, as described in the general installation instructions.

Locate the SensorLab RPM file (eg. “sccresearch-sensorlab_1-0-0_i386.rpm”), in the folder “Installer”, and double click on it. This should open the package installer dialogue. Click on Install. This will request an administrator password.

The SensorLab program should now appear on the System menu, Education, Sciences sub-menu. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.rpm”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.rpm”).

You may need to restart the computer before the program will find your data logger and sensors.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select Install & Remove Software from the system menu. Select Installed software, rather than All. Enter “sccresearch” in the find box. Deselect (un-tick) each package you want to remove from the system. eg. sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules. Then click Apply. Confirm this action if asked.

Mandriva 2010

System: Mandriva Linux One 2010 .0 with KDE 4.3.2 desktop
SensorLab: Version 1.0.0 for Linux using RPM files
Computer: Desktop (x86 compatible processor)

Installation

Extract tgz file to hard disk, as described in the general installation instructions.

Locate the SensorLab RPM file (eg. “sccresearch-sensorlab_1-0-0_i386.rpm”), in the folder “Installer”, and double click on it. Confirm by clicking the Install button. Enter the root password.

The SensorLab program should now appear on the system menu, Education sub-menu, Sciences sub-menu. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.rpm”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.rpm”).

You may need to restart the computer before the program will find your data logger and sensors.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select Install & Remove Software from the system menu. Enter the root password. The Software Management window should open. Select “All” from both the drop down lists. Enter “sccresearch” in the find box and press the Enter key. Deselect (un-tick) each package you want to remove from the system. eg. sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules. Then click Apply. Confirm this action when asked.

Mint 8

System: Linux Mint 8 (Helena) with Gnome 2.28.1 desktop
SensorLab: Version 1.0.0 for Linux using DEB files
Computer: Desktop (x86 compatible processor)

Installation

Extract tgz file to hard disk, as described in the general installation instructions.

Locate the SensorLab DEB file (eg. “sccresearch-sensorlab_1-0-0_i386.deb”), in the folder “Installer”, and double click on it. Confirm this action if asked. This will request a root/administrator password.

The SensorLab program should now appear on the System menu, in the Sciences group. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.rpm”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.rpm”).

You may need to restart the computer before the program will find your data logger and sensors.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select System, Package Manager. Enter the administrator password. This starts the Synaptic Package Manager. Enter “sccresearch” in the Quick Search box and click the Search button. Click on the square icon next to each package to be removed and select Mark for Removal. eg. sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules. Then click on the Apply button. Confirm Apply.

openSUSE 11

System: openSUSE 11.0 (i586) with KDE 4.0.4 desktop
SensorLab: Version 0.8.1 for Linux using RPM files
Computer: Desktop (x86 compatible processor)

Installation

Extract tgz file to hard disk, as described in the general installation instructions.

It is important to ensure the files are extracted from the tgz file, not just opened within it. If the files are not copied to the hard disk, say to Documents, the installation may fail.

Locate the SensorLab RPM file (eg. “sccresearch-sensorlab_1-0-0_i386.rpm”), in the folder “Installer”, and click on it. This will request a root/administrator password. The package manager dialogue will be shown during the installation.

The SensorLab program may not appear in the Applications menu until after a restart. It should then appear on the Applications menu, Applications sub-menu. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.rpm”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.rpm”).

You may need to restart the computer before the program will find your data logger and sensors.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select System, Configuration, Install Software from the main Applications menu. Enter root/administrator password when prompted. Enter “sccresearch” in the search box. Deselect (un-tick) each package you want to remove from the system. eg. sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules. Then click on the Accept button. A restart may be required to fully remove the SensorLab icon from the main Applications menu.

PCLinuxOS 2009

System: PCLinuxOS 2009 (Phoenix) with Xfce 4.6.1 desktop
SensorLab: Version 1.0.0 for Linux using RPM files
Computer: Desktop (x86 compatible processor)

SensorLab works on this Linux distribution, but it does not look very good and does not install as easily as it does on most others.

Installation

Extract tgz file to hard disk, as described in the general installation instructions.

Use the Terminal, available from the main menu. Navigate to the folder containing the RPM files and type these commands:

```
su  
rpm -i <file>
```

Where <file> is the required RPM file. (eg. “sccresearch-sensorlab-1-0-0-i386.rpm”)

You will be prompted for the root/administrator password when you enter the 'su' command.

The SensorLab program should now appear on the main system menu, More Applications sub-menu, Education sub-menu. It also appears in a further sub-menu of Education, called Sciences. The program can now be started by selecting the SensorLab menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.rpm”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.rpm”).

You may need to restart the computer before the program will find your data logger and sensors.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select System, Configuration, Packaging, Synaptic Package Monitor. Enter the administrator/root password. Click on the search button. Enter “sccresearch” and click the Find button. Deselect each package you want to remove from the system by clicking on the box icon next to the package name and selecting “Mark for removal”. eg. sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules. Click on the Apply button and confirm when prompted.

Puppy Linux 4

System: Puppy Linux 4.00 with Xvesa display server and JWM desktop
SensorLab: Version 1.0.0 for Linux
Computer: Desktop (x86 compatible processor)

Installation on Puppy Linux 4.00 proved difficult and we gave up. This was probably just due to lack of familiarity with Puppy Linux, as SensorLab did run without installation using the Puppy Linux 4.00 Live CD.

With the Puppy Live CD the program ran by extracting the files and clicking on the SensorLab icon in the SensorLab Program folder. Both USB and Serial loggers worked without setting up the port access Rules.

Ubuntu 8

System: Ubuntu 8.04 (Hardy Heron) with Gnome 2.22.2 desktop
SensorLab: Version 0.8.1 for Linux using DEB files
Computer: Desktop (x86 compatible processor)

Installation

Extract tgz file to hard disk, as described in the general installation instructions.

Locate the SensorLab DEB file (eg. “sccresearch-sensorlab_1-0-0_i386.deb”), in the folder “Installer”, and double click on it. This should open the package installer dialogue. Click on Install Package. This will request an administrator password.

The SensorLab icon should now appear on the Applications menu, Education sub-menu. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.deb”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.deb”).

You may need to restart the computer before the program will find your data logger and sensors.

Activation and configuration follow general instructions above.

Removal

To remove SensorLab from the computer, select System, Administration, Synaptic Package Manager. Enter “sccresearch” in the find box. Click on sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules, and select Mark for Removal. Then click Apply.

Ubuntu 9 (with SensorLab v1.0.0)

System: Ubuntu 9.10 (Karmic Koala) with Gnome 2.28.1 desktop
SensorLab: Version 1.0.0 for Linux using DEB files
Computer: Desktop (x86 compatible processor)

Installation

To install SensorLab, log on as a user with system administration privileges.

Extract tgz file to hard disk, as described in the general installation instructions.

Locate the SensorLab DEB file (eg. “sccresearch-sensorlab_1-0-0_i386.deb”), in the folder “Installer”, and double click on it. This should open the package installer dialogue. Click on Install Package. This will request an administrator password.

The SensorLab icon should now appear on the Applications menu, Science sub-menu. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.deb”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.deb”).

You may need to restart the computer before the program will find your data logger and sensors. This was necessary on our test system.

Activation and configuration follow general instructions above. Except, you may need to use the “sudo” command, as “su” may report Authentication failure (our test system did). As an administrator, the commands for the licence file are:

```
sudo mkdir /etc/SensorLab  
sudo cp /home/<username>/.SensorLab/Licence.txt /etc/SensorLab
```

and for the Settings file:

```
sudo cp /home/<username>/.SensorLab/Settings.txt /etc/SensorLab
```

Removal

To remove SensorLab from the computer, log on as a user with system administration privileges.

Select System, Administration, Synaptic Package Manager. Enter “sccresearch” in the Quick search box. Click on sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules, and select Mark for Removal. Then click Apply. Confirm the summary dialogue.

Ubuntu 9 (with SensorLab v1.0.18)

System: Ubuntu 9.10 (Karmic Koala) with Gnome 2.28.1 desktop
SensorLab: Version 1.0.18 for Linux using DEB files
Computer: Desktop (x86 compatible processor)

Installation

To install SensorLab, log on as a user with system administration privileges.

Extract tgz file to hard disk, as described in the general installation instructions.

Locate the SensorLab DEB file (eg. “sccresearch-sensorlab_1-0-0_i386.deb”), in the folder “Installer”, and double click on it. This should open the package installer dialogue. Click on Install Package. This will request an administrator password.

The SensorLab icon should now appear on the Applications menu, Science sub-menu. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.deb”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.deb”).

You may need to restart the computer before the program will find your data logger and sensors. This was necessary on our test system.

Activation and configuration follow general instructions above. Except, you may need to use the “sudo” command, as “su” may report Authentication failure (our test system did). As an administrator, the commands for the licence file are:

```
sudo mkdir /etc/SensorLab
sudo cp /home/<username>/.SensorLab/Licence.txt /etc/SensorLab
```

and for the Settings file:

```
sudo cp /home/<username>/.SensorLab/Settings.txt /etc/SensorLab
```

Removal

To remove SensorLab from the computer, log on as a user with system administration privileges.

Select System, Administration, Synaptic Package Manager. Enter “sccresearch” in the Quick search box. Click on sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules, and select Mark for Removal. Then click Apply. Confirm the summary dialogue.

Xubuntu 9

System: Xubuntu 9.10 with Xfce 4.6.1 desktop
SensorLab: Version 1.0.0 for Linux using DEB files
Computer: Desktop (x86 compatible processor)

Installation

To install SensorLab, log on as a user with system administration privileges.

Extract tgz file to hard disk, as described in the general installation instructions.

Locate the SensorLab DEB file (eg. “sccresearch-sensorlab_1-0-0_i386.deb”), in the folder “Installer”, and double click on it. This should open the package installer dialogue. Click on Install Package. This will request an administrator password.

The SensorLab icon should now appear on the Applications menu, Education. The program can now be started by selecting this menu item, but it may not find a Serial or USB data logger or sensors.

To install the Serial and USB rules, repeat the above for the serial rules (eg. “sccresearch-serialrules_1-0-0_all.deb”) and the USB rules (eg. “sccresearch-usbrules_1-0-0_all.deb”). Serial appears to be enabled by default in this Linux distribution so installing serial rules may not be necessary.

You may need to restart the computer before the program will find your data logger and sensors. This was necessary on our test system.

Activation and configuration follow general instructions above. Except, you may need to use the “sudo” command, as “su” may report Authentication failure (our test system did). As an administrator, the commands for the licence file are:

```
sudo mkdir /etc/SensorLab
sudo cp /home/<username>/.SensorLab/Licence.txt /etc/SensorLab
```

and for the Settings file:

```
sudo cp /home/<username>/.SensorLab/Settings.txt /etc/SensorLab
```

Removal

To remove SensorLab from the computer, log on as a user with system administration privileges.

Select System, Synaptic Package Manager. Enter the administrator password. Enter “sccresearch” in the Quick search box. Click on the box icon next to sccresearch-sensorlab and/or sccresearch-serialrules and/or sccresearch-usbrules, and select Mark for Removal. Then click Apply. Confirm the summary dialogue.