Installing The Handel Source Distribution

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The Handel source distribution is mainly intended for users who are running on Linux and other non-Windows platforms. This document assumes that Handel is being built on a Linux system. Windows users who want to build the source distribution should contact XIA (software_support@xia.com).

Unzipping the source

The first step is to unzip the source distribution into an appropriate directory using a command such as `unzip handel-Source-x_y_z.zip -d /opt/xia/software`[1]. This command will extract the source code to the `/opt/xia/software` directory. Once this command is complete, verify that the distribution has extracted properly by listing the files in `/opt/xia/software`. The Handel directory structure should include the following paths:

```
/handel
/handel/inc
/handel/src
/handel/t
```

Building the libraries

The next step is to create a directory that Handel requires in order to build properly: `mkdir /opt/xia/software/handel/lib`[2].

Now, open the file `/opt/xia/software/handel/src/Makearch.LINUX` and modify the environment information in `ROOT` and `SYSTEM_LIB_ROOT` to reflect your environment. Additionally, you may define `SYSTEM_COPY` if you want the libraries to be automatically copied to a specific directory (`/usr/local/lib`, for instance) after they are built.

Once the configuration information is properly defined in `Makearch.LINUX`, Handel can be built with the following command:

```
make ARCH=LINUX SERIAL=false CAMAC=false EPP=false ARCNET=false
  USB=false PLX=false UDXP=false UDXPS=false VERSION=false all
```

This command builds Handel using the default drivers included in the distribution. The file `md_linux.c` provides a general framework that you can use to develop code to perform I/O on our hardware. Due to the variety of implementations available, XIA does not officially support any low-level I/O drivers on Linux. Future releases of Handel will include EPP and CAMAC drivers, however.

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[1] This document assumes that Handel is extracted to `/opt/xia/software`. If you extract Handel to a different directory, please substitute your root directory for `/opt/xia/software`.

[2] The handel subdirectory is created as part of the unzip process.

Once the code for a driver has been implemented, Handel must be re-built with the proper flags passed to the `Makefile`. By default, all of the `Makefile` flags are set to "true". For instance, if you integrate support for EPP and CAMAC devices into Handel, you would now compile it with the following command:

```
make ARCH=LINUX SERIAL=false ARCNET=false USB=false UDXP=false
           UDXPS=false PLX=false VERSION=false all
```

Additionally, the μDXP drivers (`UDXP` and `UDXPS`) are not distributed for Linux and should always be set to "false" when compiling the libraries.

Notes

- The next release of Handel (v0.6.x) will have improved support for building and installing on Linux.
- XIA is interested in supporting as many relevant low-level I/O drivers as possible. Unfortunately, we don't currently have the resources to develop these drivers ourselves. If you are interested in integrating a driver into the official Handel source, please contact XIA. See the Support section for contact information.

Support

Please send any bug reports, suggestions, enhancements or issues to XIA:
software_support@xia.com