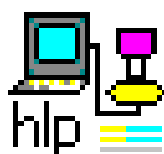


# **WorldFIP Tools**

## **version 1.0.x for Linux**

### **Software and hardware installation guide**



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Review of the document			
Index	Date	Page	Description
A	08/29/2005	ALL	Creation of the document
B	01/21/2010	ALL	LINUX Version
C	03/16/2011	END	FipDesigner installation

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## 1.INTRODUCTION

WorldFIP Tools is a software toolkit for FIP configuration and communication which can be only used with the PCI/FIP card by HLP Technologies.

The WorldFIP Tools components under Linux are:

1-The bi-medium PCI/FIP card by HLP Technologies and its driver (pcifip.ko).

2-The FipEngine library (libFipEngine.so) which contains all the FIP functions (Fipcode5). This library offers an interface between the driver of the PCI/FIP card and any customer application.

3-The programs of example with source C files and makefiles which simulate a customer application.

4-The documentation files.

5-The java executable program ProductNumberManager.jar allows the administrator to manage the licenses associated with each card.

Two installations are provided:

For a full installation, the user must be administrator ("root" under Linux).

The minimum user installation is composed of the example and documentation files. It is included in the full installation as the "FipEngine.tar.gz" file.

The full installation is composed of the FipEngine library, the driver, the program to manage and activate the licenses.

Each WorldFIP Tools component is protected by a license code associated with the delivered PCI/FIP card. The licenses of the different products must be activated to complete the installation.

Installing WorldFIP Tools is twofold but it's more logical if the administrator first installs the card and its driver.

1-Installing the PCI/FIP card and its driver.

2-Installing the the software toolkit.

## 2.HARDWARE SETUP

### 2.1.INSTALL

**Warning :** WorldFIP Tools is adapted to work with a for 32 bits Linux distribution based on Red Hat Enterprise 6 and is developed and tested on Scientific Linux 6.4 which is developed by CERN and Fermilab.

Kernel Version is 2.6.32-358.18.1.el6.

It can only be used with the PCI/FIP card by HLP Technologies.

Proceed as follow to install the PCI/FIP card and its driver for the first time.

1-Switch off and unplug the computer.

2-Insert the card into a free PCI slot.

3-Turn on the computer.

4-Be sure to have administrator rights.

5-Unzip the file "Install\_Pcifip.tar.gz".

6-Run the script "Install\_Pcifip.sh" on the command line in a terminal window.

7-Follow the steps described in 3.1.to install user programs.

## 3.SOFTWARE MANAGEMENT

### 3.1.INSTALL

Proceed as follow to install the WorldFIP Tools program FipEngine:

1-Unzip the file "Install\_Pcifip.tar.gz" in any directory.

2-The file "Install\_FipEngine.tar.gz " is included in the precedent. Unzip the file "Install\_FipEngine.tar.gz " in any directory where you want to install the samples and the documentation.

#### 4.LICENSE ACTIVATION

Each WorldFIP Tools component is protected by a license code associated with the delivered PCI/FIP card. These codes are given with the card according to the software licenses ordered.

To activate the licenses of the different products of WorldFIP Tools, use the program called "ProductNumberManager".

The "ProductNumberManager" utility is installed in the directory "*/opt/hlp\_tech*". It is a java executable jar file and you can launch it from the file browser.

This utility, installed with the software toolkit, is accessible into the WorldFIP Tools workgroup "*opt/hlp\_tech*". It can be used later to update the licenses.

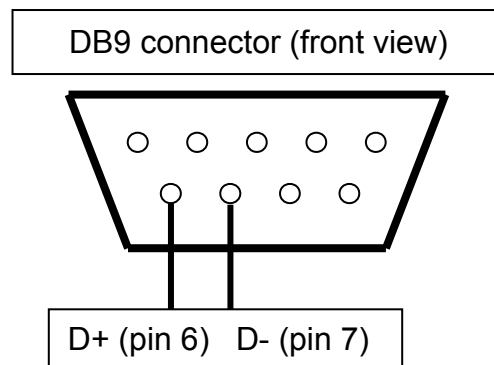
Click the "Modify" button, fill in the license codes and click the "OK" button.

	License 1	License 2	License 3	License 4
FipEngine	28458962	NONE	NONE	NONE
FipDesigner		NONE	NONE	NONE
FipBusView		NONE	NONE	NONE
	Cancel	Modify	Modify	Modify

OK

## 5.CONNECTION TO THE WORLDVIP NETWORK

The connection to the WorldFIP or FIP network is made through two DB9 connectors. The signal is carried by pins 6 (+) and 7 (-).



## 6.INSTALLED FILES

- The library "*libFipEngine.so*" is installed in the directory "*/usr/lib*".
- The driver "*pcifip.ko*" is installed in the directory "*/lib/modules/2.6.32-358.18.1.el6.i686/kernel/drivers/hlp*".
- The program "*ProductNumberManager.jar*" is installed in the directory "*/opt/hlp\_tech*".
- The files "*serial.prop*" (used by *ProductNumberManager*) and "*FIPCODE.DAT*" (used by *FipEngine*) are installed in the directory "*/etc/opt/hlp\_tech*".
- The header file "*FipEngin.h*", the documentation files and the samples with C source files, Makefiles, .cnf and .ba files are installed in the directory where is unzipped "*Install\_FipEngine.tar.gz*".



## 7.FIPDESIGNER INSTALLATION

To run FipDesigner for Linux, you must have done the PCIFIP installation but the presence of the user FipEngine files is not necessary.

First, open the system file browser to display the directory where stands the file to unzip.

To unzip the file " InstallFipDesigner.tar.gz ", just choice the command "Open with Archive manager " in the system context menu and unzip the files in any directory. You can too choice the command " Extract Here ".

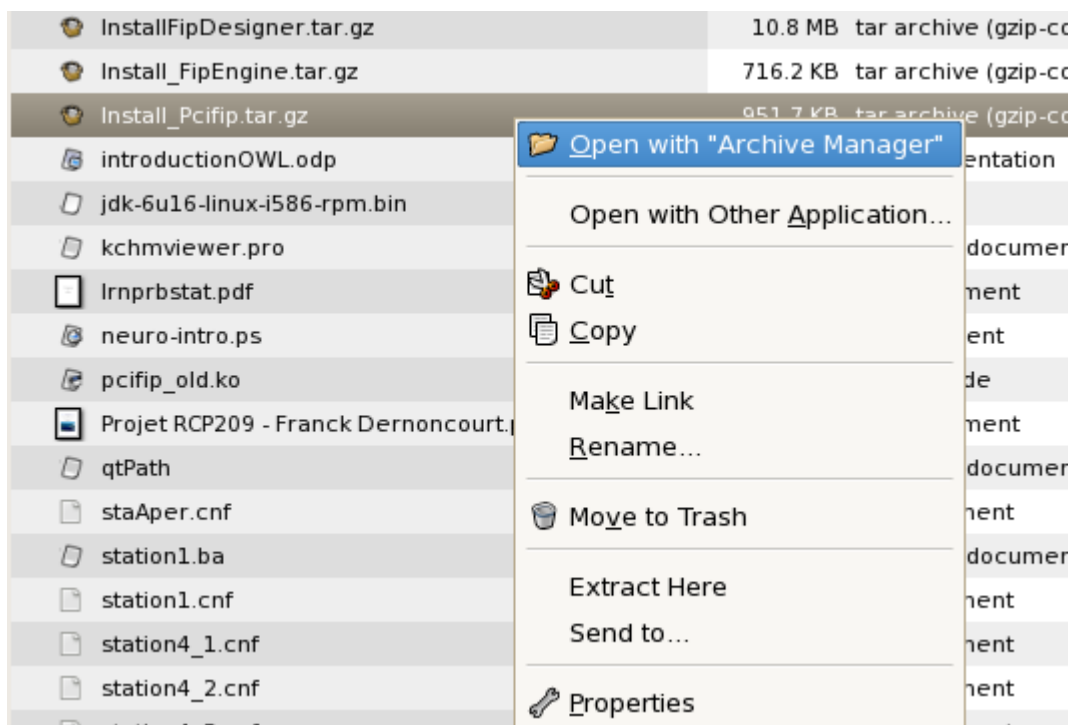
Then, in a terminal window, run the script " InstallFipDesigner.sh ".

The program FipDesigner is installed in the directory " /opt/hlp\_tech ".

Then run the program " ProductNumberManager.jar " to enter the licence key.

If the licence key is wrong, a dialog box is displayed at launching and the software aborts.

To launch FipDesigner, the best way is to open a terminal window and to run the script FipDesigner.sh.



## 7.1.TROUBLESHOOTING

### 7.1.1. YOU CANNOT LAUNCH A PROGRAM BECAUSE YOU DON'T HAVE THE RIGHTS

In the system context menu, choice the command " Properties " and verify if the checkbox " Execute " in the tab " Permissions " is checked.



### 7.1.2. YOU CANNOT LAUNCH A PROGRAM BECAUSE LIBRARIES ARE NOT FOUND

Just try in a terminal window in the current directory the command:  
`LD_LIBRARY_PATH=/usr/lib/qt4/lib`  
`export LD_LIBRARY_PATH`

### 7.1.3. YOU CANNOT LAUNCH THE FIPDESIGNER HELP PROGRAM FROM FIPDESIGNER

Try to launch FipDesigner from a terminal window or run directly the program " Help " from this window.

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## 7.2.INSTALLED FILES

•In the directory " /opt/hlp\_tech " are installed:

- FipDesigner and FipDesigner.sh
- Help
- FipDesigner\_for\_Linux\_V1.0.pdf
- The file "PCIFIP\_Linux\_Install.pdf "
- STATION1.cnf, STATION2.cnf and STATION1.ba.

•In the directory " /usr/lib/qt4/lib " are installed the libraries:

- libQtCore.so.4.6.2
- libQtGui.so.4.6.2
- libQtWebKit.so.4.6.2
- libQtNetwork.so.4.6.2
- libQtXml.so.4.6.2
- libQtWebKit.so.4.6.2
- libQtXmlPatterns.so.4.6.2
- libphonon.so.4.3.1
- libQtDBus.so.4.6.2