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# Device Driver User Guide

—PCIDC3KPro device driver  
for Windows 2000/XP/2003

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**FOUNDER**

Beijing Founder Electronics Co., Ltd.





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FZ 5000PD interface adapter was granted CE certificate.



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This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Beijing Founder Electronics Co., Ltd.

Address: No.9, Str. 5, Shangdi, Haidian District, Beijing, 100085 P. R. China

Tel: +86 (10) 6298 1440, Fax: +86 (10) 6298 1438

Technical support via email:

E-mail: [gasupport@founder.com](mailto:gasupport@founder.com)

Visit our web site: <http://www.founder.com.cn>



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# Introduction

## 1.1 Overview

The Founder EagleRIP imagesetter interface adapter, PCIDc3kPro supports Linotronic830/930, R3020 (PS) /R3030 (PS) series Linotype-Hell imagesetteres. This card is a PCI bus interface adapter. Compared with adapters on the ISA, EISA, MICRO Channel bus, it has faster I/O transmission speed (top speed is 132M byte/sec) and better compatibility, it's also plug and play.

The Founder EagleRIP imagesetter interface adapter, PCIDc3kPro requires PCI local bus slots with 5V power supply and 33MHz bus clock and conform to PCI protocol 2.0 or higher.

## 1.2 How to use this guide

This installation guide shows you how to install and configure the PCIDc3kPro interface adapter and its device driver, how to set the device driver parameters, how to use the device monitor and the meaning of feedback messages. Please read this guide carefully, or refer to it later.



## 1.3 Conventions

- A note providing hints, tips, advice, or suggestions.
- ⊗ Cautions alerting you to incorrect operations or unfavorable conditions that could damage the interface adapter.

## 1.4 System Requirements

**CPU:** Recommended Pentium IV 2.0GHz or above

**Memory:** Recommended 2 GB or above

**Hard Disk:** Recommended Ultra SCSI Hard Disk with at least 20GB free space

**PCI bus:** Compatible PCI protocol v 2.0 or above

## 1.5 Product Package

The package contains the following items. Please check it first to make sure nothing missed. Please contact your supplier if any thing is missing.

- |                             |   |
|-----------------------------|---|
| • PCI bus interface adapter | 1 |
| • TAXI signal cable         | 1 |
| • LI5 communication cable   | 1 |

## 1.6 Installation Tools

The following items may be needed:

- |                             |          |
|-----------------------------|----------|
| • Cross-shaped screwdriver  | 1        |
| • Across-shaped screwdriver | 1(spare) |



# 2

## Adapter Installation

This section shows you the basic information to set your interface adapter.

### 2.1 Prerequisites for installation

- Reading this installation guide is recommended before you install your PCI interface adapter.
- Please make sure the interface adapter looks like Figure1.

### 2.2 Interface adapter layout

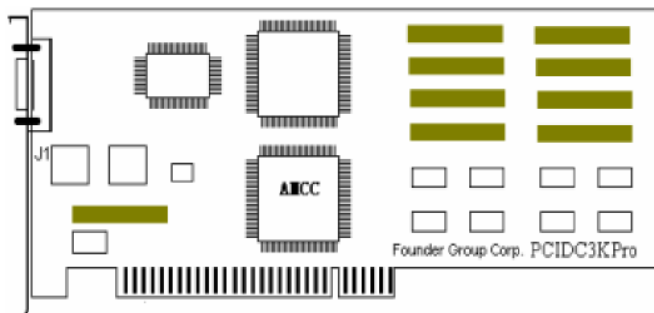


Figure1.

- J1 is a 9-pin D-type interface connector.



## 2.3 Connect Method

Figure2 shows the sketch of LI5 communication cable:

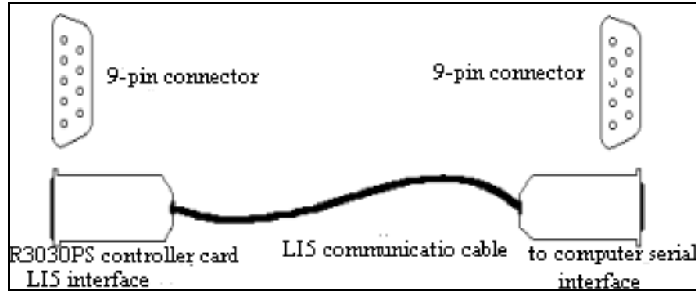


Figure2.

Table 1 shows the connection methods of LI5 communication cable:

Signal Name	COM(computer serial interface, 9-pin connector)	RS3030PS card (LI5 interface, 9-pin connector)
DCD	1	4
RXD	2	3
TXD	3	2
DTR	4	1
GND	5 (connected to shell)	5 (connected to shell)
DSR	1,6(inter-link)	1,6(inter-link)
RTS,CTS	7,8(inter-link)	7,8(inter-link)

Figure3 shows the sketch of TAXI signal cable:



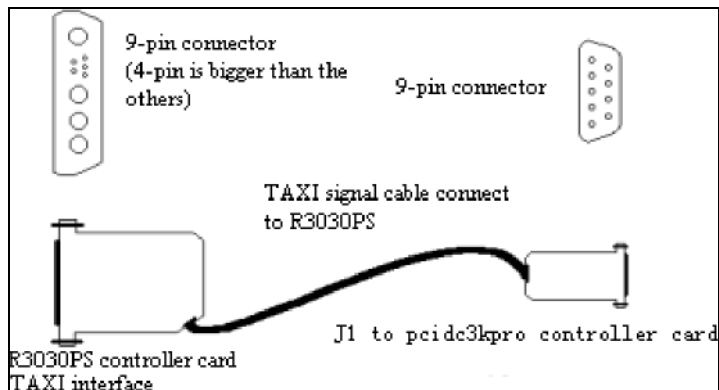


Figure3.

Table 2 shows the connection table of TAXI signal cable:

Signal Name	RS3030PS card(HDM9C4)	PCIDC3Kpro card J1(DB9/F)
SEROUT +	A1	6
SEROUT -	A2	1
SERIN +	A3	9
SERIN -	A4	4

## 2.4 Installation Procedures

1. Turn off the computer and imagesetter; disconnect the power cord.
2. Remove the cover of the computer.
3. Choose an idle PCI Bus expansion slot, usually it's white or ivory-white.
4. Remove the mounting screw and the existing bracket from the rear panel behind the selected PCI slot.
5. Place the adapter into the selected PCI slot. Press down on the top of the board until it seats firmly, make sure it is properly seated in.
6. Secure the bracket of adapter with the mounting screw.



7. As shown in Figure 2, connect LI5 communication cable.
  8. As shown in Figure 3, connect TAXI signal cable.
  9. Clean up all the cables around.
  10. Replace the computer cover, and fasten the computer cover screws.
  11. Insert the USB Dongle into I/O port of the computer.
  12. Turn on the imagesetter, then the computer.
  13. Start up Windows and install EagleRIP. For detailed information about EagleRIP installation, refer to EagleRIP User Guide.
- 
- ⊗ While installing the interface adapter, keep it away from heat source or magnetic objects.
  - ⊗ While installing the interface adapter, avoid damage from electrostatic discharge.
  - ⊗ While installing the interface adapter, if the selected PCI expansion slot is too tight, please shake the adapter slightly. If it does not work, select another PCI slot.



# 3

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## Driver Installation

The following sections show you how to install the PCIDc3kPro imagesetter device driver, how to set the device driver parameters, how to use the device monitor and the meaning of feedback messages.

### 3.1 PCIDc3kPro Installation

1. First, shut down the computer, and cut off the power, and then insert the PCIDc3kPro card into computer's PCI slot, and then switch on the power, start the computer, enter windows 2000.
2. When the computer starts, system will detect the new hardware automatically, if it finds the inserted PCIDc3kPro card, the following dialog will be displayed:



*Figure4.*

3. And then, the wizard will be displayed, just like the following figure:





Figure5.

4. Now, follow the guide on the screen, select "Next", and then you will see:



Figure6.



5. Select "Search for a suitable driver for my device" item, and click "Next":



Figure7.

6. Select "Floppy disk drives" or "CD-ROM drives", then click "Next", if the wizard can't find the suitable file, you should select "Back" to return to this step, and then select "Specify a location", and click "Next":



Figure8.



7. Use "Browse" button to find the path that include the \*.inf file and the driver file, then select "OK". If the wizard finds the necessary files, you will see the tip, or you should search the installation disk carefully to find the correct path.

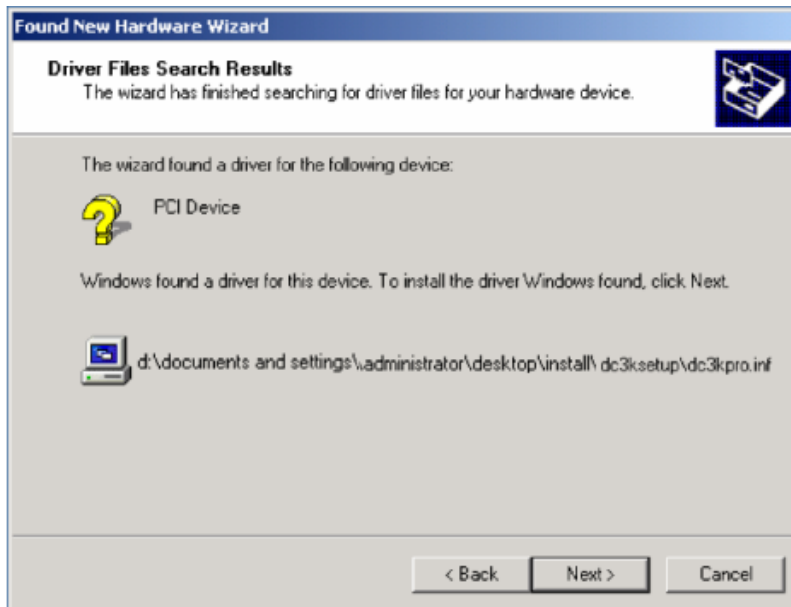


Figure9.

8. When you see this tip, the file was found. Click "Next":





Figure10.

9. Congratulations, you have completed the PCIDc3kPro card's installation. If you open "Device Manager" of your operating system, you will see PCIDc3kPro card under the "Device Interface Adapter" node. See the following figure:



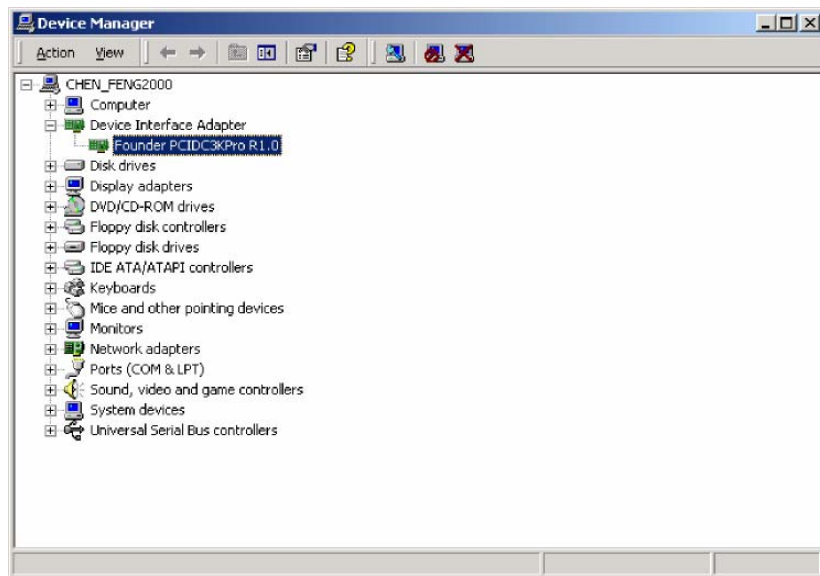


Figure11.



# 4

---

## Using Device Driver

### 4.1 Dc3kPro device driver parameter setting

Click **Template Manager** in the EagleRIP 4.0 and select Dc3kPro from the **Template List**. Click **Device Setup** in the **Edit** box where you can set up parameters for Media, Ganging, Mirror & Negative, etc. Correlated with the output device, all these parameters are critical to have the job output correctly.

Click **Device** tab in **Device Setup** dialogue box. See the following figure:



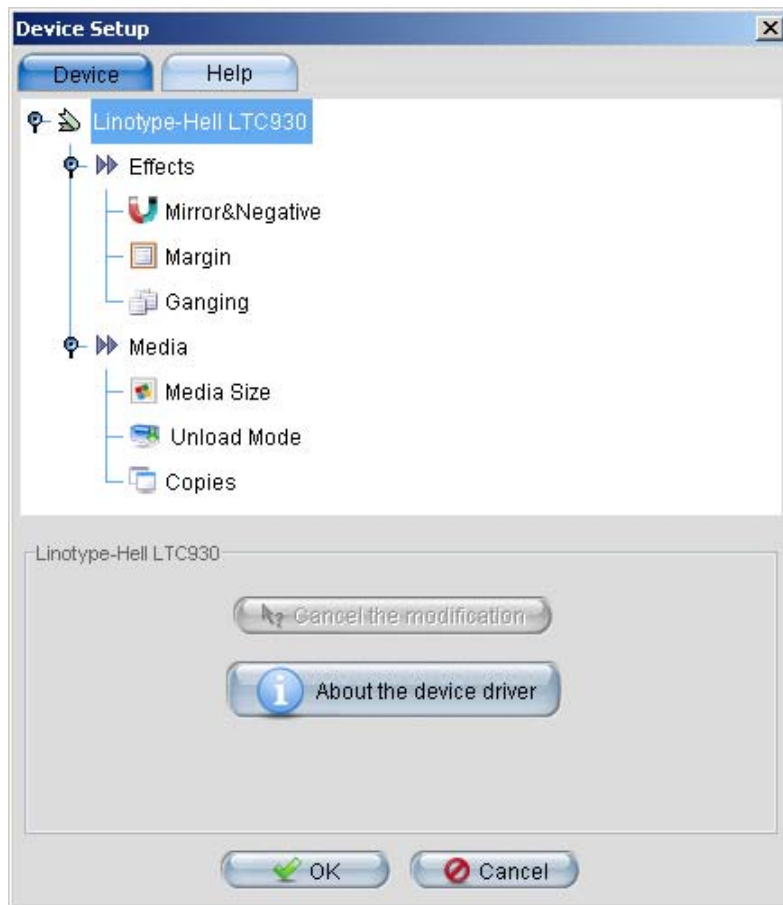


Figure12.

## 4.2 About the device driver

Select the Linotype-Hell device name node on the top of the parameter tree, and click **About the device driver** button to get the **Device Property** window as shown in Figure 13, which displays device related information including **Vendor**, **Protocol**, **Device** and **Version**.



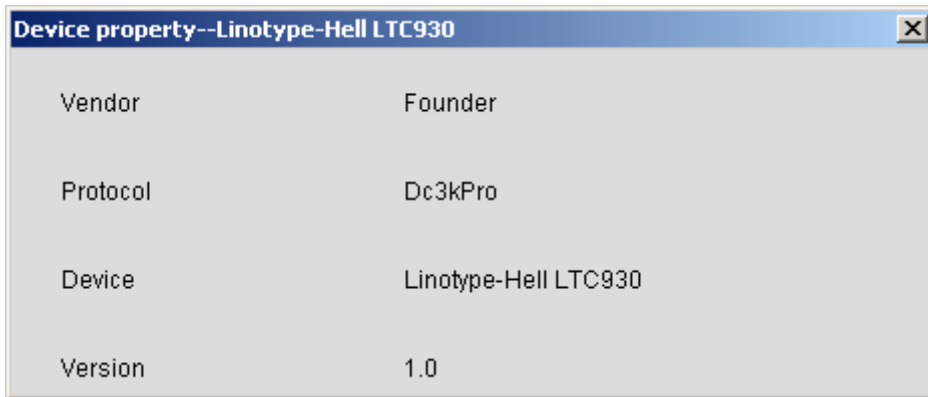


Figure13.

If any modification was made, the **Cancel the modification** button is enabled. Clicking the button will restore the default settings of the current device setup.

## 4.3 Device driver parameter setting

The meaning, valid value and detailed description of each parameter are shown below:

### Effects

#### ❖ Mirror & Negative

- **Mirror:** an option for output mirror (**True**) or not (**False**).
- **Negative:** an option for output negative (**True**) or not (**False**).

#### ❖ Margin

- **Left/Top Margin:** enter the size of the margin on the output page. You may change the unit from **RIP Setup>Misc** Tab. Please enter a valid value for the margin.
- **Alignment:** including **No Alignment, Horizontal Auto Center, Vertical Auto Center, Left Alignment, Center Alignment, Right Alignment, Top Alignment and Bottom Alignment**.

#### ❖ Ganging



To select a parameter used to control bitmap page ganging.

The basic principles of Dc3kPro device driver bitmap page ganging: As the Dc3kPro imagesetter film may be bigger than your desired output page size, Dc3kPro device driver provides auto ganging function so that you can use the film more efficiently. Generally speaking, if the output parameter setting of one or more bitmap of the requested printing job are compatible (for example, parameters such as the **Device Model**, **Media Size**, **Margin**, **Cut Mode**, **Ganging**, **Mirror**, **Negative** are all consistent), and the currently selected media size can accommodate such bitmaps (bitmap does not overlap, and there are needed spacing among the bitmaps), then Dc3kPro device driver can combine these bitmap page to a big page and output.

- Selecting the ganging option may result in Dc3kPro device driver's waiting for enough pages to be combined into a surface before actually output the surface when the surface is deemed full. And in **Any job** ganging mode, the surface will not be output even if all the jobs have been interpreted, unless the surface is full. If you want to send the ganging surface to the device immediately, you can select **Output Now** icon in the **CombinePage View** dialogue, or by selecting the **Buffer Output** right-clicking menu in the **Page List**, or by selecting the same menu item in the **Surface List**. The incomplete surface will be output to the device.

- **Ganging Type**

1. **No Ganging**: if you want to turn off Auto Ganging function supplied by the Dc3kPro device driver, please select **No Ganging**. When **No Ganging** is selected, **Page Margin Ganging Direction** and **Limit Job Number** will gray out. The default is selected.
2. **Same Job**: if **Same Job** is selected, EagleRIP will automatically compose and output the different separations or pages in the same rip job for media saving purpose. If the bitmap requesting for output does not belong to the composed bitmap in the same rip file, the system will output the buffered bitmap first, and then process the requesting bitmap to make sure the different bitmap belonging to different jobs will not be composed onto the same page and output. In another scenario, if **Same Job** is selected, the system will automatically



output buffered bitmap (if any) in the job when the job is ripped and bitmap formulates. **Limit Job Number** will gray out.

3. **Any Job:** EagleRIP automatically gangs any separation or page in any ripping job, by means of media saving, and outputs finally. If **Any Job** is selected, you may select **Clear Buffer on Completion** to wait for the bitmap in other ripping jobs to gang onto the same page. If **Any Job** is selected, **Limit Job Number** option will be off.
  - a. **Reject Oversized Job:** if selected, the system will disable oversized job output. Oversized job means output page cannot include all the output contents. Therefore, the center size shall include the contents size plus margin size.
  - b. **Partly Output for Oversized Job:** if selected, only top left section of the page will be output if the job size exceeds the media size.
  - c. **Split page and output:** jobs that exceed the media size will be split and output.
4. **Page Margin**
  - a. **X/Y direction:** the values specify the margin of each page in X and Y directions.
5. **Limit Job Number:** if selected, you may enter value to limit the ganging pages.
  - o **Color First:** with this check box selected, one surface only contains pages of a particular color separation. And all separations of the same job are located on the same relative position of the surfaces.
  - o **Enable X direction:** the ganging pages will be arranged on a surface in X direction.
  - o **Enable Y direction:** the ganging pages will be arranged on a surface in Y direction.
  - o **X direction first:** if both X and Y directions are enabled, you may check or uncheck this box to determine which direction in which the ganging pages will be arranged first. If **X direction**



**first** is selected, the pages will be first arranged on the surface vertically till there is not enough space to allow more pages.

- **Clear buffer on Completion:** if “Any Job” checked, by checking this parameter the buffered bitmaps can be output automatically after ripping. If “Any Job” and this parameter checked simultaneously. The difference between it and “Same Job” is that the first one allows the bitmaps of this job to be combined with the preceding job (if the parameters are compatible and there are enough blank spaces on the film).

## Media

- ❖ **Media Size:** an option to define the media size. EagleRIP offers A5, B5, A4, B4, A3, B3, A2, A1, etc. for you to choose from the dropdown menu. If you want to customize the media size, you have to select **Custom** and enter the wanted width and height. You may enter any decimal for more accurate media size. For example, if you want to customize a media size close to A4, you can select A4 first, and then fine-tune the width and height for accurate result.
- ❖ **Unload Mode:** select the method how to unload film.
  - **Manual\_Unload:** do not automatically unload film after printing. This is the default setting. If this option is checked, you can do manual unloading by operating the control panel of Dc3kPro imagesetter or the EagleRIP Dc3kPro PCI device monitor.
  - **Auto\_Unload:** automatically unload film after printing. If your imagesetter is not connected to an on-line processor, be careful to check this option. Because your imagesetter maybe breakdown if you cannot change the cassette in time!
- ❖ **Copies:** enter the number of copy you want to have. The valid value ranges from 1 to 9999.

## Help:

Press the Help tab. On-line help about **EagleRIP Dc3kPro device setup** will display.



## 4.4 Dc3kPro PCI device monitor

The Dc3kPro PCI Device Monitor is used for monitoring and refreshing the device status, and setting the device.

You may open the device monitor by selecting the **Device Control** command in **Action** menu.



*Figure14.*

Only when the currently printing job is output into Dc3kPro imagesetter, can you open the Dc3kPro PCI device monitor; if the currently printing job is switched to non-Dc3kPro imagesetter, the open device monitor will be closed automatically by the system. During the switching of device, the system will automatically output the buffered bitmaps into the Dc3kPro imagesetter.

### ❖ Refresh

Through this button, you can display the current status of Dc3kPro imagesetter on the device monitor and see if it is ready.

### ❖ Reset

Press this button to reset all the specified values.

### ❖ Cut Film

Click the button, you can instruct the Dc3kPro imagesetter to cut films.

## 4.5 Dc3kPro device driver feedback messages

The feedback messages include normal messages, warning messages, error messages etc.



The Green font messages are Normal messages.

The Red font messages are Error messages.

The Blue font messages are Warning messages.