

X-MICRO

Combo Bluetooth Printer Adapter

User's Manual

(For Windows XP Bluetooth Driver)

TABLE OF CONTENTS

WELCOME	1
Features	1
System Requirements	1
Before You Start	2
Connecting your Bluetooth USB Adapter with PC	2
X-Micro Combo Bluetooth Printer Adapter	2
Getting to Know Your X-Micro Combo Bluetooth Printer Adapter ..	3
Function of LEDs During Printing	3
MICROSOFT XP BLUETOOTH DRIVER	4
ADD ONE PRINTER	7
START PRINTING	14
CHANGE PRINTER	15
MULTIPLE X-MICRO COMBO BLUETOOTH PRINTER ADAPTERS ...	17
Configuring the first Printer Adapter	18
Configuring the second Printer Adapter	20
Configuring the third Printer Adapter	22
Start Printing	24
Change Printer	25
MORE LOOK ON BLUETOOTH DRIVER	27
PRINTER ERROR MESSAGE	28
CANCEL PRINTING JOB	29
RESET HANGED BLUETOOTH	29
APPENDIX A	30
APPENDIX B	31
FCC	32
WARRANTY	33

WELCOME

Thank you for your purchase of the X-Micro Combo Bluetooth Printer Adapter. Featuring Bluetooth wireless technology, X-Micro Combo Bluetooth Printer Adapter creates cable-free printing connections between your desktop PCs and your printers. X-Micro Combo Bluetooth Printer Adapter is compatible with all Bluetooth v1.1-certified devices and you can connect your computing devices and printers 100 meters away without cables in your working environments, such as home or office.

FEATURES

- Compliant with Bluetooth standard version 1.1 .
- Support for Microsoft Windows 98SE, ME, 2000 and XP.
- Operating distance of up to 100 meters in free space.
- Bluetooth Class I (20 dbm).
- Support both USB and 1284 printer port interfaces.
- Both SPP and HCRP print service profiles supported.
- Easy operation and setting up.

SYSTEM REQUIREMENTS

- PCs must have a Bluetooth device installed, such as a Bluetooth USB dongle. It allows you to communicate with X-Micro Combo Bluetooth Printer Adapter.
- PCs must have a Bluetooth device driver installed. Furthermore, make sure the driver is of the latest revision which supports Bluetooth print service.
- PCs can have different printer drivers installed, printer drivers such as HP, Epson, Canon...etc. You can install at least one before using X-Micro Combo Bluetooth Printer Adapter.
- USB printer shall follow USB printer specification as downloadable from USB forum - <http://www.usb.org>. Some printers do not follow this specification and can not be used.

BEFORE YOU START

1. Confirm Box Contents



X-Micro Combo Bluetooth Printer Adapter



5V Power Adapter



Utility CD



Manual

IMPORTANT

PLEASE READ ALL INSTRUCTIONS AND THE SAFETY GUIDE BEFORE YOU PLUG THE UNIT INTO THE PRINTER.

CONNECTING YOUR BLUETOOTH USB ADAPTER WITH PC

- Connect your Bluetooth USB dongle with your PC.
- Use Windows XP Bluetooth software driver.



X-MICRO COMBO BLUETOOTH PRINTER ADAPTER



USB Connector

IEEE-1284 connector



Mode Button

DC Power Jack

GETTING TO KNOW YOUR X-MIRO COMBO BLUETOOTH PRINTER ADAPTER

X-Micro Combo Bluetooth Printer Adapter supports two interfaces which can be used to connect with your printer.

- 1). IEEE-1284 - It is a 36-pin male connector on the front. Connect it to your printer. If your printer hides its female connector inside its case, then you have to open it.
- 2). USB - It is a USB type A connector. You need to connect one end of the USB cable to X-Micro Combo Bluetooth Printer Adapter, then connect another end to the printer.

Note : If your printer supports both interfaces, we recommend you to choose just one to connect with X-Micro Combo Bluetooth Printer Adapter. If you connect X-Micro Combo Bluetooth Printer Adapter to both of them, 1284 interface will be the functioning one.

- 3). Apply power to X-Micro Combo Bluetooth Printer Adapter by using the 7.5V DC power adapter accompanied, it is also the only way to RESET X-Micro Combo Bluetooth Printer Adapter.
- 4). Mode button is used by the advanced user to configure the printer adapter for some special purposes, it is normally left unused. You also can refer to the Utility Manual in CD for how to use it.

FUNCTION OF LEDS DURING PRINTING

● POWER LED

- Power LED turns on when POWER is applied to X-Micro Combo Bluetooth Printer Adapter.

● BLUETOOTH LED

- Bluetooth LED is blinking when Bluetooth link is established but no data is transmitted on the line.
- Bluetooth LED is ON when PC is wirelessly sending data to printer through X-Micro Combo Bluetooth Printer Adapter.

● PRINTER LED

- Printer LED is ON when there is a USB or parallel (IEEE-1284) printer connected to the X-Micro Combo Bluetooth Printer Adapter.
- Printer LED is OFF when no printer is connected.
- Printer LED is blinking when PC is sending data to printer through X-Micro Combo Bluetooth Printer Adapter.

MICROSOFT XP BLUETOOTH DRIVER

If you have installed service pack 1 on Windows XP, the Microsoft built-in Bluetooth printing support is available when a USB Bluetooth Dongle is plugged into your computer.

Click **START**

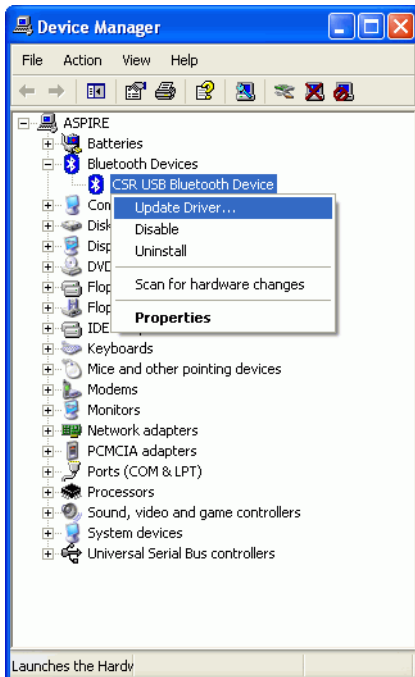
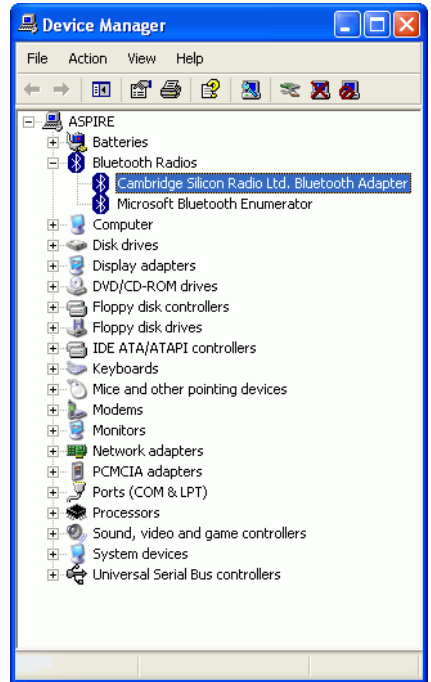
Select **Control Panel** .

Select **System**.

Select **Device Manager**.

In **Bluetooth Radios**, you can find Microsoft Bluetooth device driver - **Cambridge Silicon Radio Ltd. Bluetooth Adapter**.

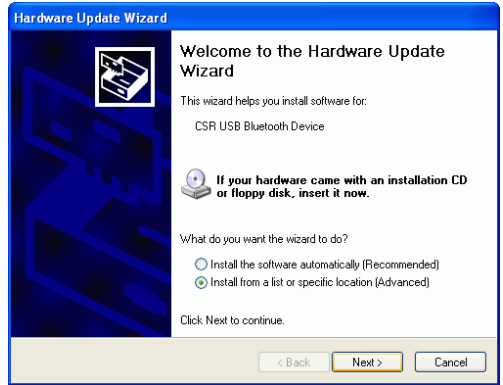
If the driver is NOT a Microsoft driver, instead, if it is a Widcomm driver - **CSR USB Bluetooth Device**, then you can follow the following steps to update it.



Step 1 :
Right click the icon and select **Update Driver....**

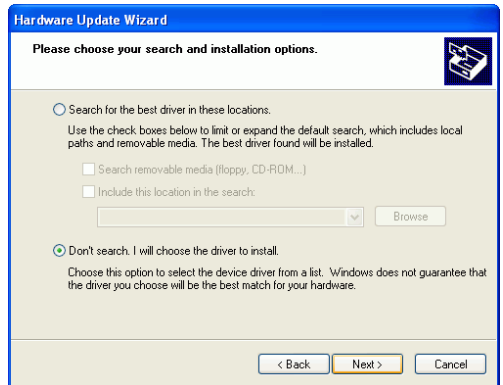
Step 2 :

Select **Install from a list or specific location (Advanced)**.
Click **Next**.



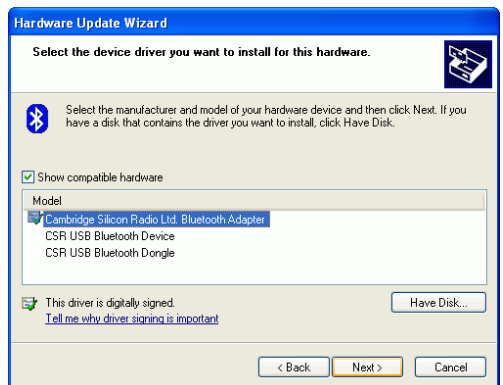
Step 3 :

Select **Don't search, I will choose the driver to install**.
Click **Next**.



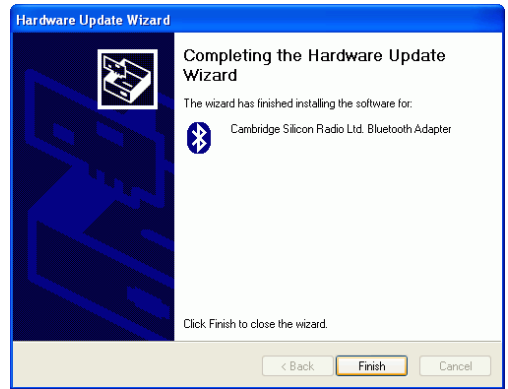
Step 4 :

Select driver **Cambridge Silicon Radio Ltd. Bluetooth Adapter**.
Click **Next**.



Step 5 :

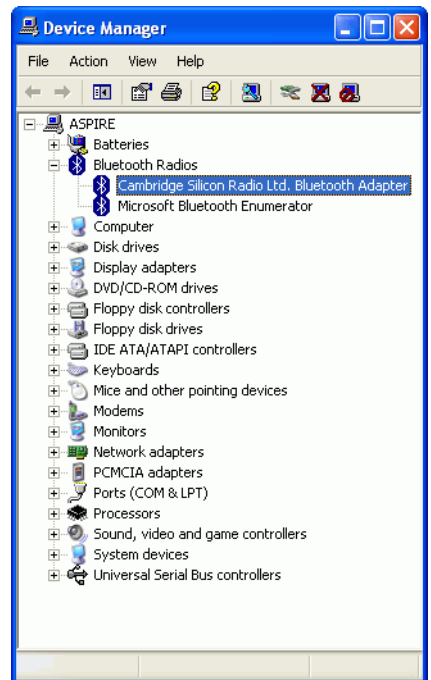
Click **Finish** to complete.



Step 6 :

From Device Manager page, Microsoft Bluetooth device driver - **Cambridge Silicon Radio Ltd. Bluetooth Adapter** can be found.

At this moment, your PC has Microsoft Bluetooth driver supported now.



ADD ONE PRINTER

If you have installed service pack 1 on Windows XP, the Microsoft built-in Bluetooth printing support is available.

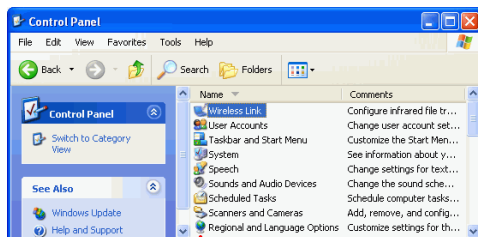
In the following example, X-Micro Combo Bluetooth Printer Adapter is connected to an EPSON Stylus C61 printer, and both X-Micro Combo Bluetooth Printer Adapter and printer are powered on.

Step 1 :

Click **START**.

Select **Control Panel** .

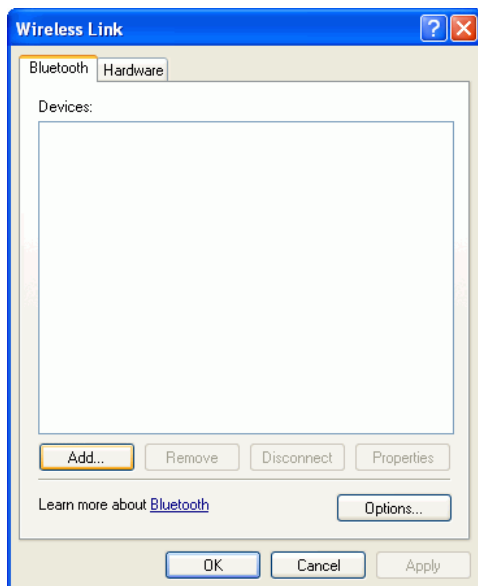
Select **Wireless Link**.



Step 2 :

Pop up **Wireless Link** window.

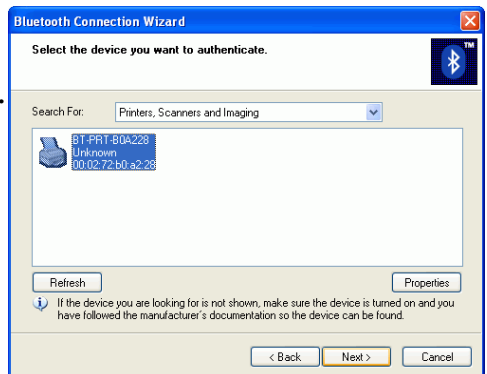
Click button **Add...**



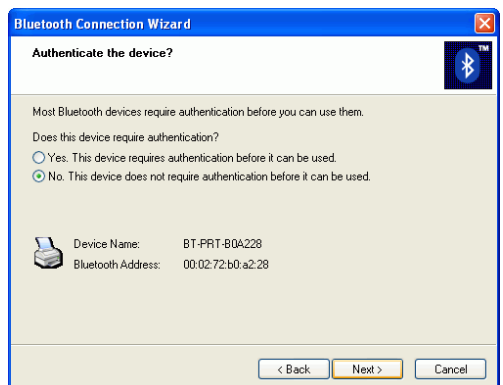
Step 3 :
Click **Next**.



Step 4 :
Search Bluetooth device in range.
You can specify device type as filter.
We will choose to search Bluetooth **Printers, Scanners and Imaging**, and one unknown printer **BT-PRT-B0A228** is found.
Click **Next**.

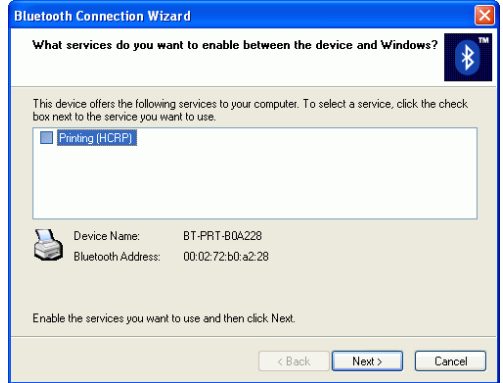


Step 5 :
Select **No**. This device does not require authentication before it can be used.
Click **Next**.



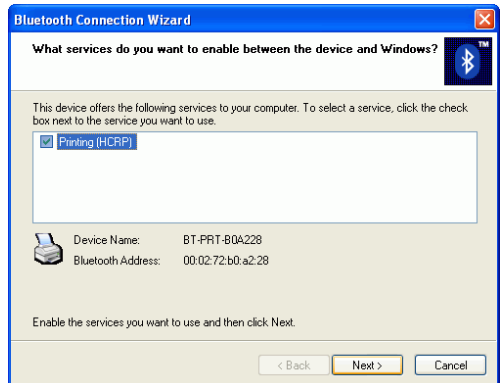
Step 6 :

Windows XP has been connecting to X-Micro Combo Bluetooth Printer Adapter and retrieving its available service **Printing (HCRP)**.



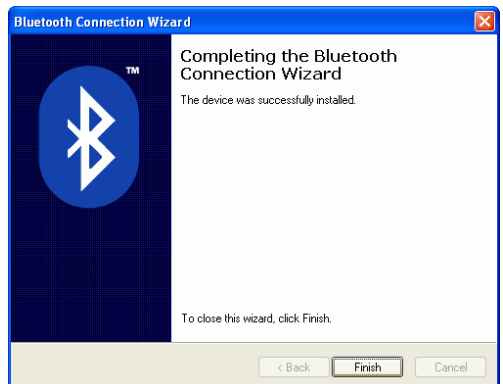
Step 7 :

Select **Printing (HCRP)** by checking the box.
Click **Next**.



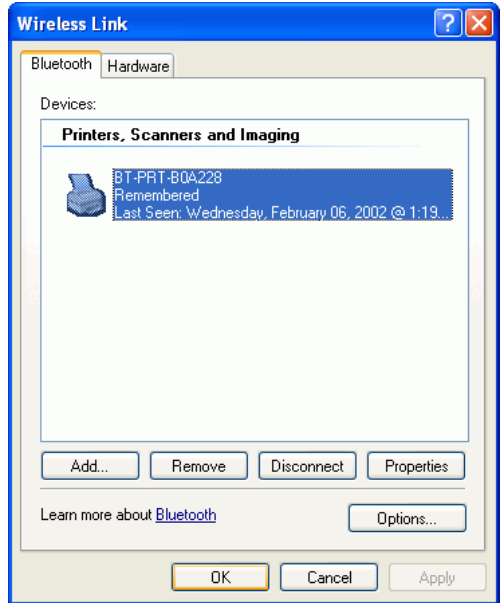
Step 8 :

Click **Finish** to complete.



Step 9 :

This printer is marked as **Remembered**.
Click **OK** to close window.



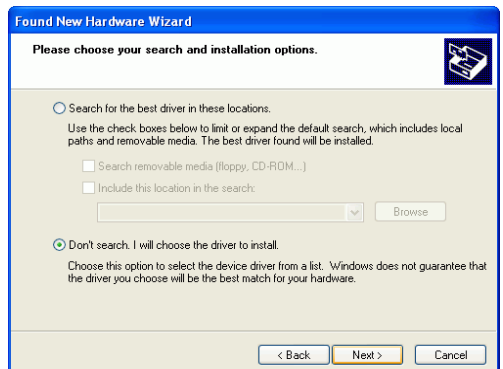
Step 10 :

Need to specify printer driver,
select **Install from a list or specific location (Advanced)**.
Click **Next**.

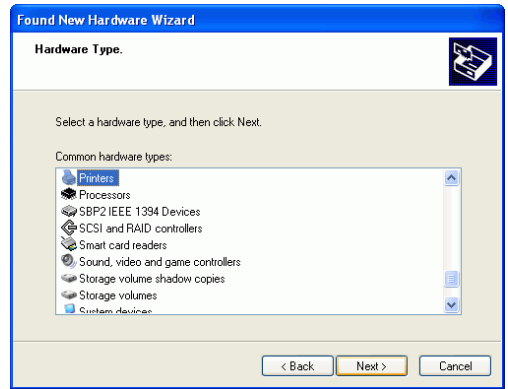


Step 11 :

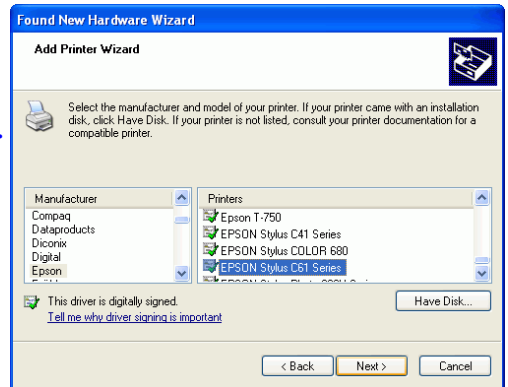
Select **Don't search, I will choose the driver to install**.
Click **Next**.



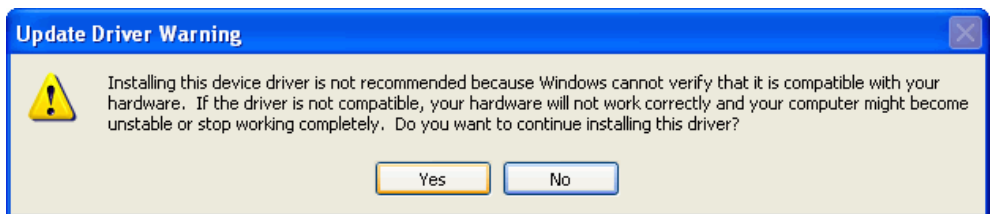
Step 12 :
Select **Printer**.
Click **Next**.



Step 13 :
If the printer driver is already installed, please select it.
If not, you have to click **Have Disk...** to install it.
In this example, EPSON Stylus C61 Series driver was installed before, so just select it.
Click **Next**.



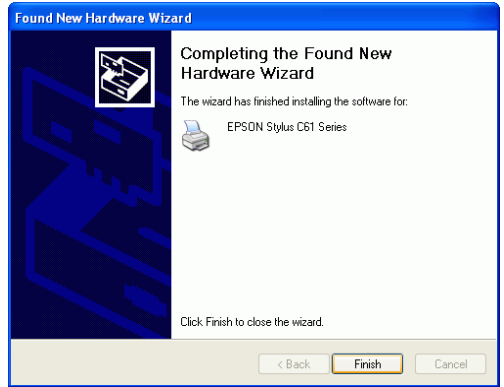
Step 14 :
A warning message is displayed.



Click **Yes** to continue.

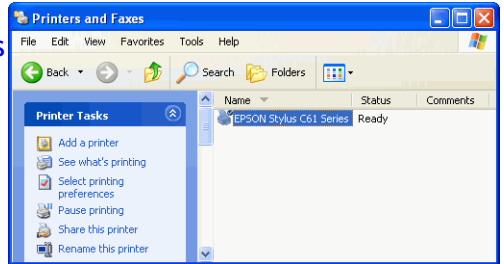
Step 15 :

Complete the Found New Hardware Wizard by clicking **Finish**.



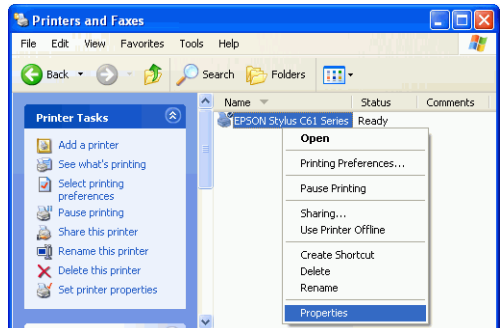
Step 16 :

New printer **EPSON Stylus C61 Series** is added into **Printers and Faxes**.



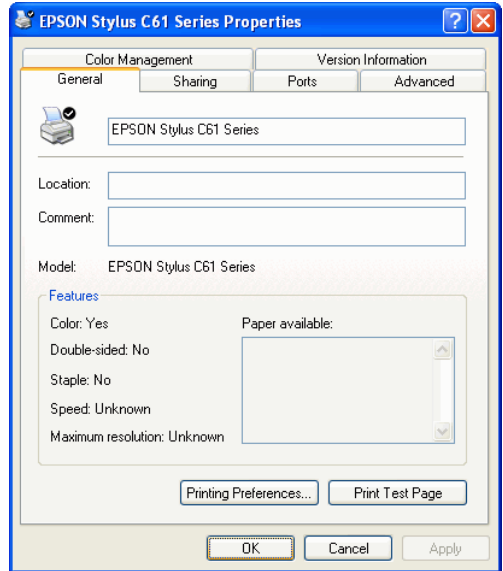
Step 17 :

Right click on printer icon to check it's **Properties**.



Step 18 :

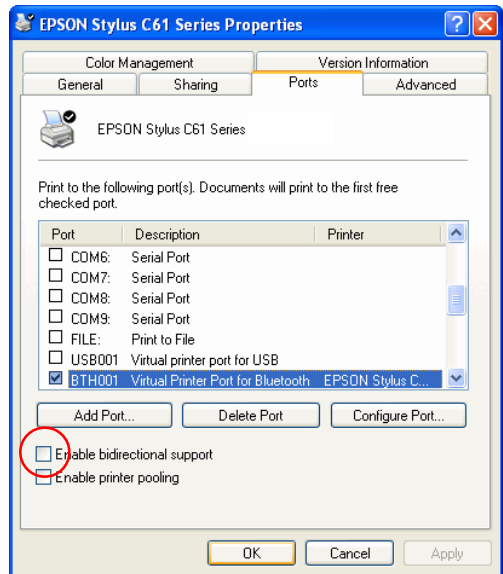
From **General** page, we can find a printer - **EPSON Stylus C61 Series** is there.



Step 19 :

From **Ports** page, Windows XP has assigned a virtual printer port - **BTH001** to your EPSON Stylus C61 printer.

BTH001 is like normal LPT1: port which is used in local printer connection. Except BTH001 is accompanied with X-Micro Combo Bluetooth Printer Adapter, while LPT1: is directly connected through parallel port.

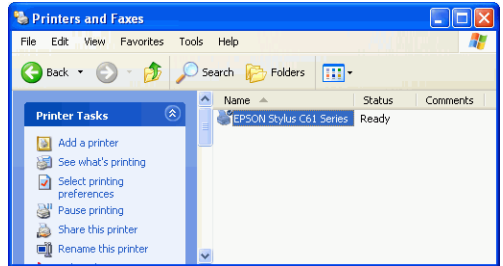


Note - Please **unmark** or **disable** bidirectional support. Some printers might stay at wait state for one minute after printing is done if bidirectional support is enabled.

Click **OK** to exit.

START PRINTING

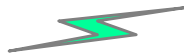
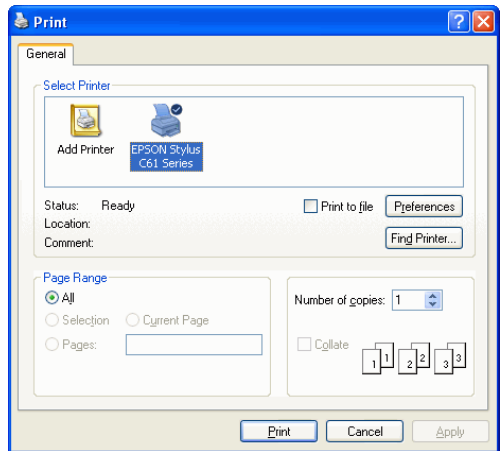
Click **My Computer** icon on the desktop screen, select **Control Panel**, select **Printers and Faxes**, then you can find a Bluetooth Printer is there : EPSON Stylus C61 Series.



Print a file by using X-Micro Combo Bluetooth Printer Adapter is quite straight forward, it is just like the normal way you are printing a file.

For EPSON Stylus C61 Series :

When page range and number of copies screen prompts, select **EPSON Stylus C61 Series** printer, then click OK.



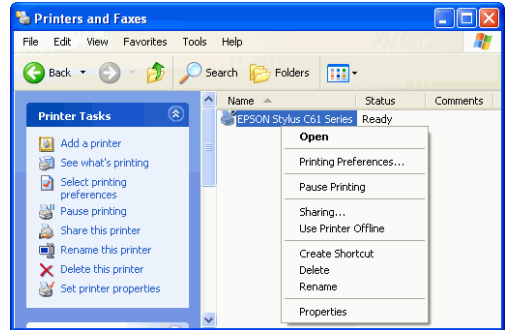
EPSON Stylus C61 Series

CHANGE PRINTER

In your home or office, there may be two or three different printers coming from different brands. In previous example, we selected EPSON Stylus C61 color printer as our bluetooth printer. If you want to change it to another printer, such as EPSON Stylus Photo 830U, then you shall know how to change printer driver to a different one.

Step 1 :

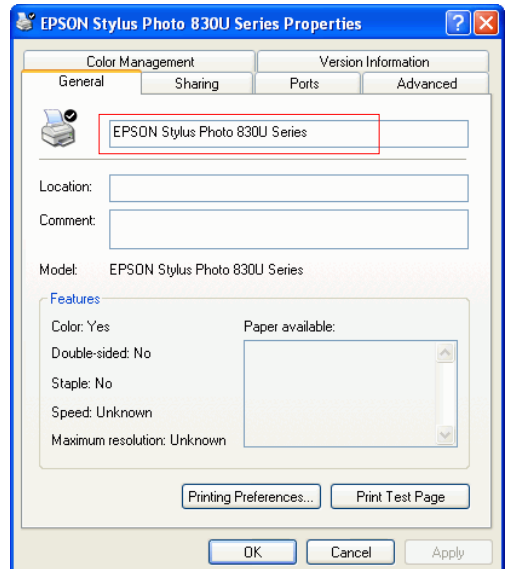
Select **Control Panel** .
Select **Printers and Faxes**.
Right click on **EPSON Stylus C61 Series** printer icon.
Click on **Properties**.



Step 2 :

You can change printer name to such as :
EPSON Stylus Photo 830U Series.

Click on **Advanced** tab to see if the driver of EPSON Stylus Photo 830U has been installed before.

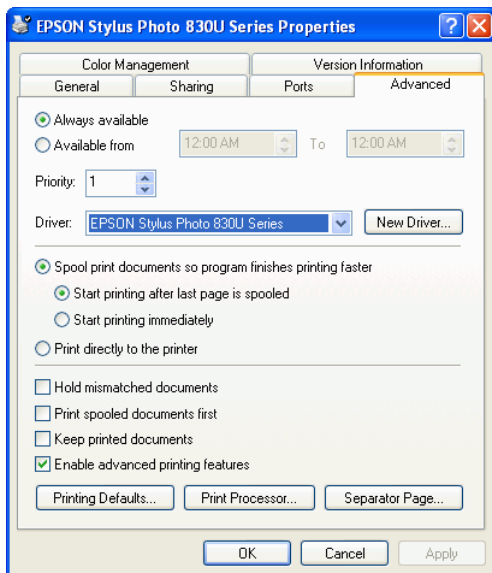


Step 3 :

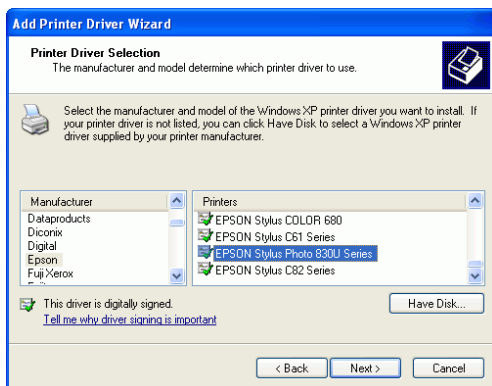
In Advanced setup, try to find the driver of EPSON Stylus Photo 830U.

If there is an EPSON Stylus Photo 830U driver installed before, select it and click **OK** to complete the change.

If there is none, click **New Driver** and follow the instructions to install it.



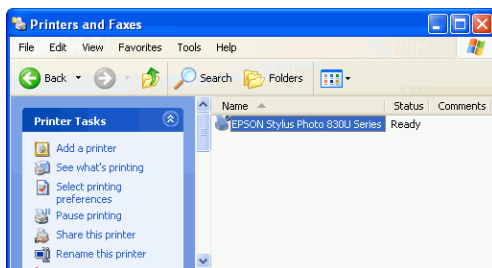
Once New Driver is selected, this screen will prompt to ask you to install new driver step by step.



Step 4 :

When installation of new printer driver is complete, the Printers and Faxes screen will look like this.

EPSON Stylus Photo 830U Series is coming out as the new printer which must be connected to the X-Micro Combo Bluetooth Printer Adapter now.



MULTIPLE X-MICRO COMBO BLUETOOTH PRINTER ADAPTERS

Previous sections talk about how to do a printing job with a X-Micro Combo Bluetooth Printer Adapter. This section is talking about when multiple adapters are installed in your office, how to configure each adapter before printing? Supposed there are three X-Micro Combo Bluetooth Printer Adapter, two of them are connected to two EPSON Stylus C61 printers and one is connected to an EPSON Stylus Photo 830U printer separately.

In the following example, we assume :

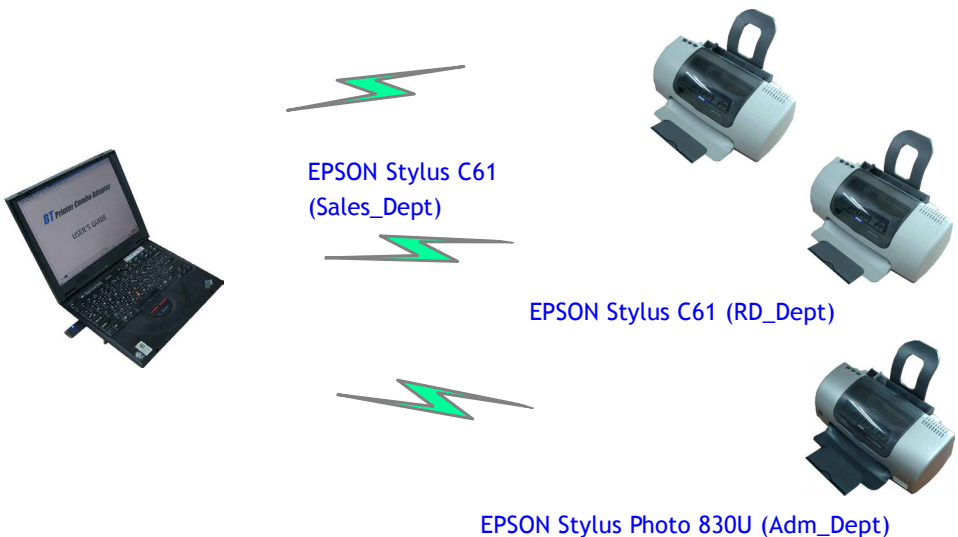
BT-PRT-B0A351 is connecting to EPSON Stylus C61.

BT-PRT-B0A352 is connecting to EPSON Stylus C61.

BT-PRT-B0A353 is connecting to EPSON Stylus Photo 830U.

The configuration steps of each X-Micro Combo Bluetooth Printer Adapter are :

1. Connects X-Micro Combo Bluetooth Printer Adapter to printer through USB or parallel port.
2. Power on X-Micro Combo Bluetooth Printer Adapter.
3. Power on printer.
4. From PC side, click START -> Control Panel -> Wireless Link, and follow the configuration steps as mentioned in previous sections to install the driver.



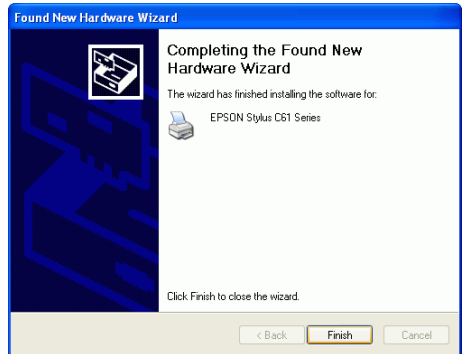
1. Configuring the first Printer Adapter

Connect the first X-Micro Combo Bluetooth Printer Adapter to an EPSON Stylus C61 printer. Power on X-Micro Combo Bluetooth Printer Adapter and printer.

Step 1 :

Follow the steps 1 ~ 15 as described in ADD ONE PRINTER (from page 7 to page 12) to add the first local printer.

Click **Finish**.

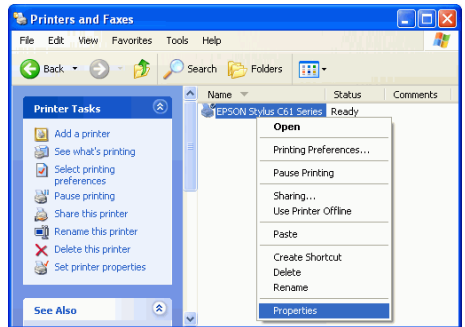


Step 2 :

Click **My Computer** icon on the desktop screen, select **Control Panel**, select **Printers and Faxes**.

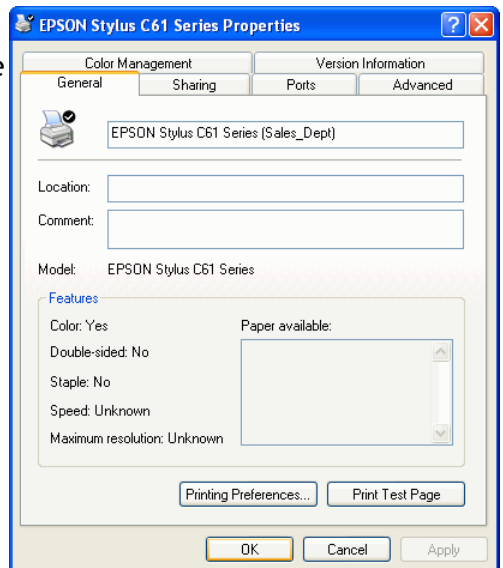
Right click on **EPSON Stylus C61 Series** printer icon.

Click on **Properties**.



Step 3 :

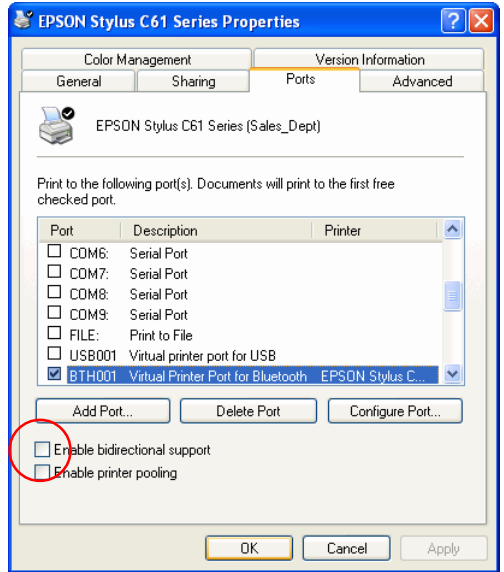
From **General** page, you can change printer name to **EPSON Stylus C61 (Sales_Dept)**. At end user side, you will only find a printer named **EPSON Stylus C61 (Sales_Dept)**, you will not see any printer named BT-PRT-B0A351.



Step 4 :

From [Ports](#) page, Windows XP has assigned a virtual printer port - [BTH001](#) to your EPSON Stylus C61 series (Sales_Dept) printer.

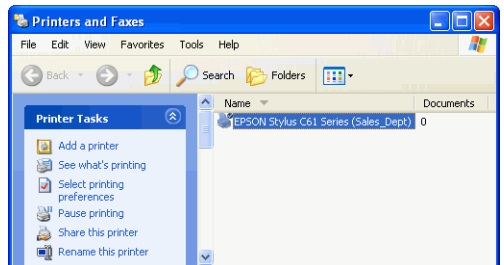
BTH001 is like normal LPT1: port which is used in local printer connection. Except BTH001 is accompanied with X-Micro Combo Bluetooth Printer Adapter, while LPT1: is directly connected through parallel port.



Note - Please **unmark** or **disable** bidirectional support. Some printers might stay at wait state for one minute after printing is done if bidirectional support is enabled.

Click **OK**.

The first printer - [EPSON Stylus C61 series \(Sales_Dept\)](#) can be found on [Printers and Faxes](#) window.



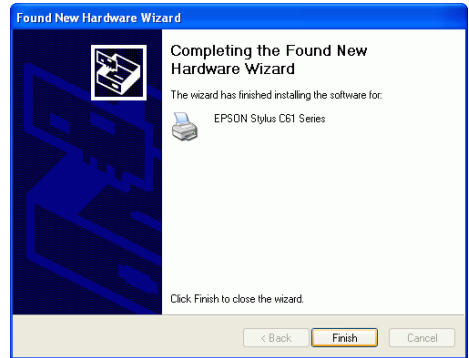
2. Configuring the second Printer Adapter

Connect the second X-Micro Combo Bluetooth Printer Adapter to another EPSON Stylus C61 printer. Power on X-Micro Combo Bluetooth Printer Adapter and printer.

Step 1 :

Follow the steps 1 ~ 15 as described in ADD ONE PRINTER (from page 7 to page 12) to add the second local printer.

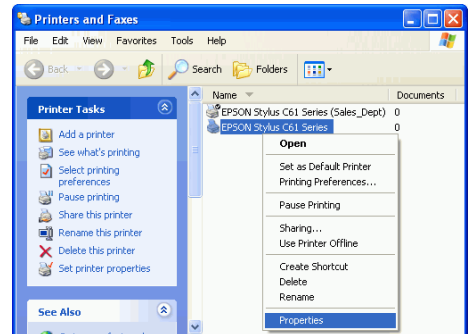
Click **Finish**.



Step 2 :

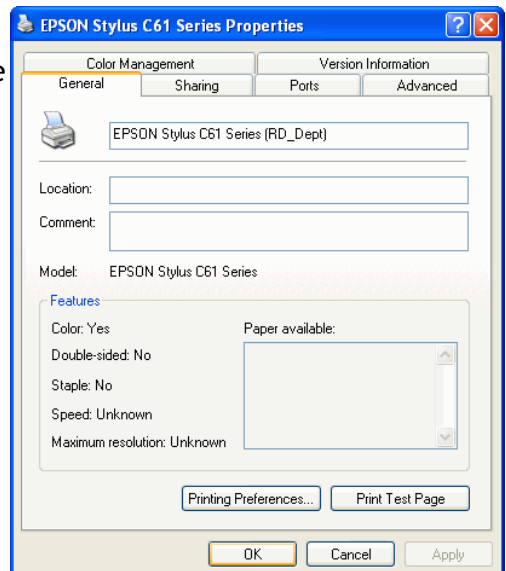
Click **My Computer** icon on the desktop screen, select **Control Panel**, select **Printers and Faxes**.

Right click on **EPSON Stylus C61 Series** printer icon. Click on **Properties**.



Step 3 :

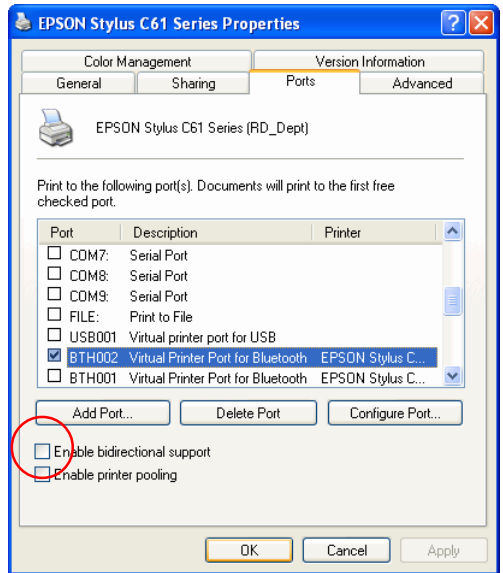
From **General** page, you can change printer name to **EPSON Stylus C61 Series (RD_Dept)**. At end user side, you will only find a printer named **EPSON Stylus C61 Series (RD_Dept)**, you will not see any printer named **BT-PRT-B0A352**.



Step 4 :

From **Ports** page, Windows XP has assigned a virtual printer port - **BTH002** to your EPSON Stylus C61 series (RD_Dept) printer.

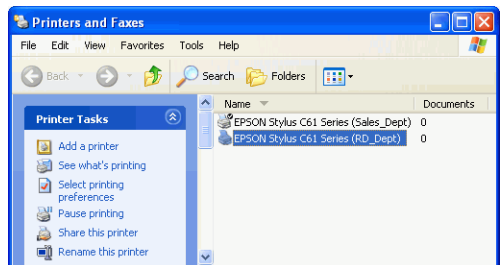
BTH002 is like normal LPT1: port which is used in local printer connection. Except BTH002 is accompanied with X-Micro Combo Bluetooth Printer Adapter, while LPT1: is directly connected through parallel port.



Note - Please **unmark** or **disable** bidirectional support. Some printers might stay at wait state for one minute after printing is done if bidirectional support is enabled.

Click **OK**.

The second printer - **EPSON Stylus C61 series (RD_Dept)** can be found on **Printers and Faxes** window.



3. Configuring the third Printer Adapter

Connect the third X-Micro Combo Bluetooth Printer Adapter to an EPSON Stylus Photo 830U printer. Power on X-Micro Combo Bluetooth Printer Adapter and printer.

Step 1 :

Follow the steps 1 ~ 15 as described in ADD ONE PRINTER (from page 7 to page 12) to add the third local printer.

Click **Finish**.

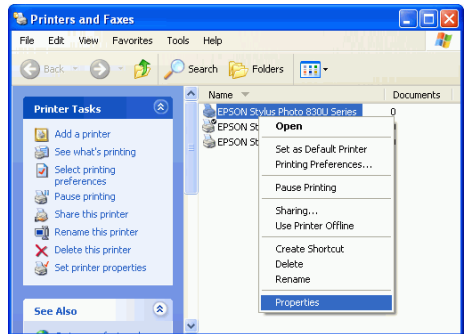


Step 2 :

Click **My Computer** icon on the desktop screen, select **Control Panel**, select **Printers and Faxes**.

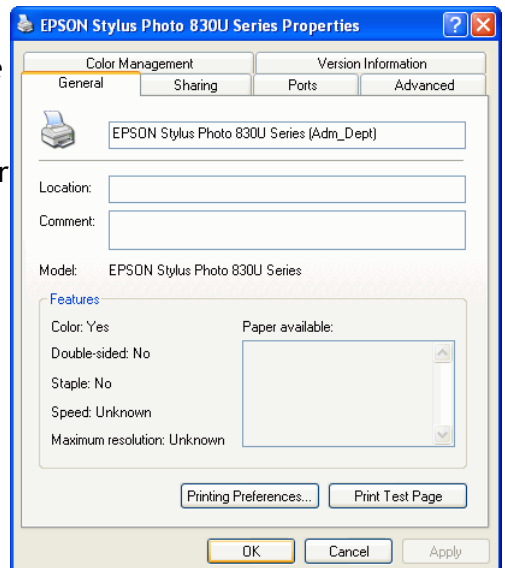
Right click on **EPSON Stylus Photo 830U Series** printer icon.

Click on **Properties**.



Step 3 :

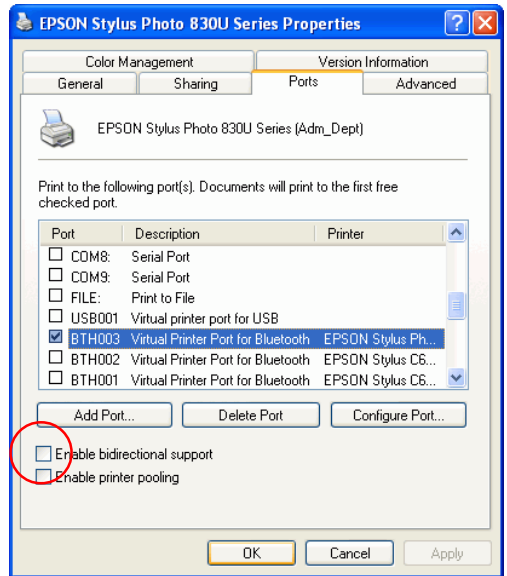
From **General** page, you can change printer name to **EPSON Stylus Photo 830U Series (Adm_Dept)**. At end user side, you will only find a printer named **EPSON Stylus Photo 830U Series (Adm_Dept)**, you will not see any printer named **BT-PRT-B0A353**.



Step 4 :

From [Ports](#) page, Windows XP has assigned a virtual printer port - [BTH003](#) to your EPSON Stylus Photo 830U series (Adm_Dept) printer.

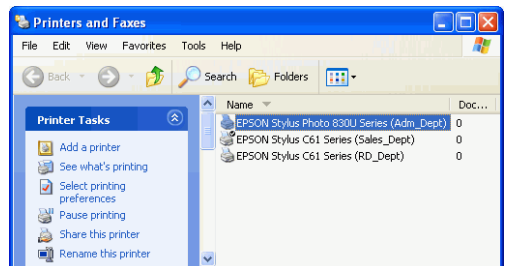
BTH003 is like normal LPT1: port which is used in local printer connection. Except BTH003 is accompanied with X-Micro Combo Bluetooth Printer Adapter, while LPT1: is directly connected through parallel port.



Note - Please **unmark** or **disable** bidirectional support. Some printers might stay at wait state for one minute after printing is done if bidirectional support is enabled.

Click **OK**.

The third printer - [EPSON Stylus Photo 830U series \(Adm_Dept\)](#) can be found on [Printers and Faxes](#) window.



Three Bluetooth Printers are there :

1. EPSON Stylus C61 series (Sales_Dept).
2. EPSON Stylus C61 series (RD_Dept).
3. EPSON Stylus Photo 830U series (Adm_Dept).

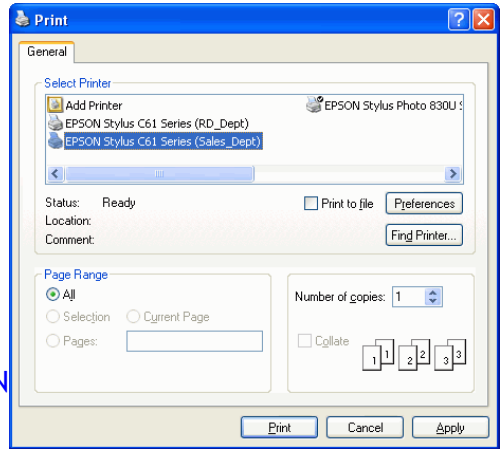
If you want to print by using these printers, please refer to next page.

Start Printing :

Print a file by using X-Micro Combo Bluetooth Printer Adapter is quite straight forward, it is just like the normal way you are printing a file.

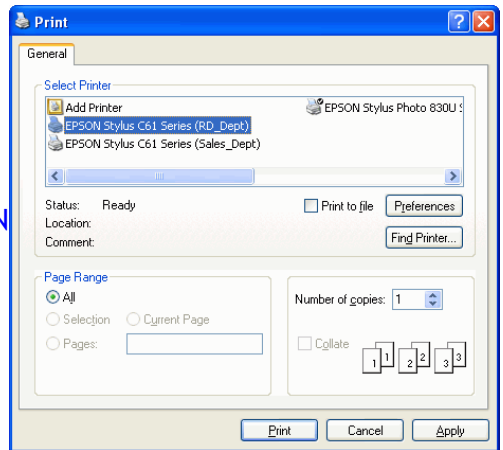
For EPSON Stylus C61 series (Sales_Dept) :

When page range and number of copies screen prompts, select **EPSON Stylus C61 series (Sales_Dept)** printer, then click OK.



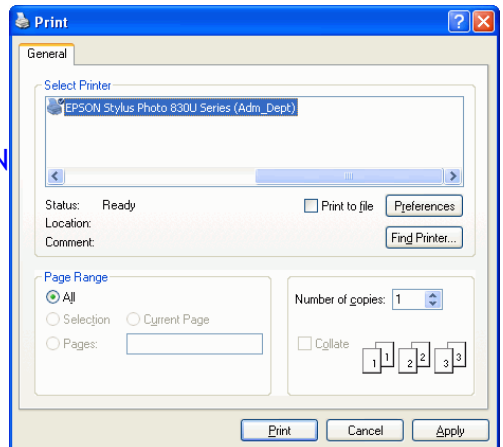
For EPSON Stylus C61 series (RD_Dept) :

When page range and number of copies screen prompts, select **EPSON Stylus C61 series (RD_Dept)** printer, then click OK.



For EPSON Stylus Photo 830U series (Adm_Dept) :

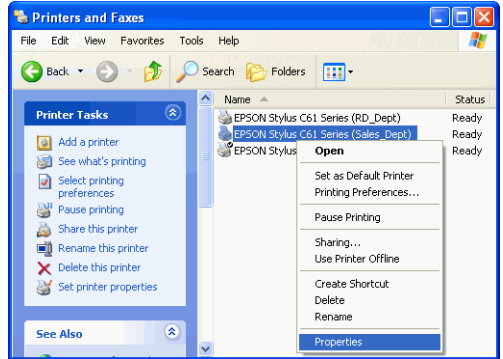
When page range and number of copies screen prompts, select **EPSON Stylus Photo 830U series (Adm_Dept)** printer, then click OK.



Change Printer :

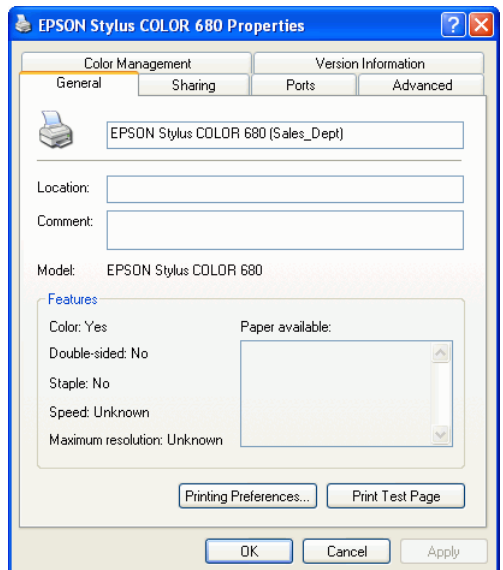
Step 1 :

Select Control Panel .
Select Printers and Faxes.
Right click on printer EPSON Stylus C61 Series (Sales_Dept) icon.
Click on Properties.



Step 2 :

You can change printer name to such as :
EPSON Stylus COLOR 680 (Sales_Dept).

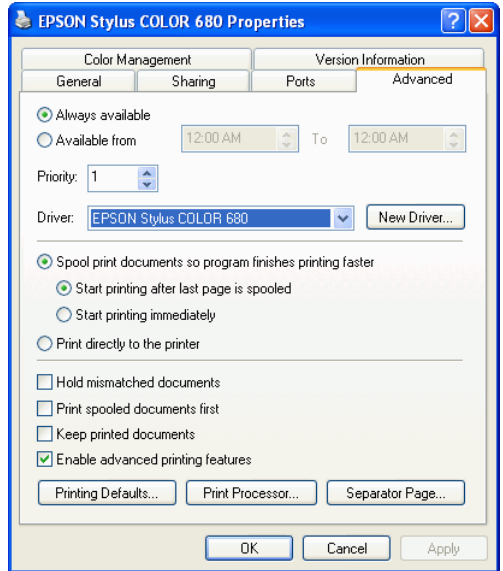


Step 3 :

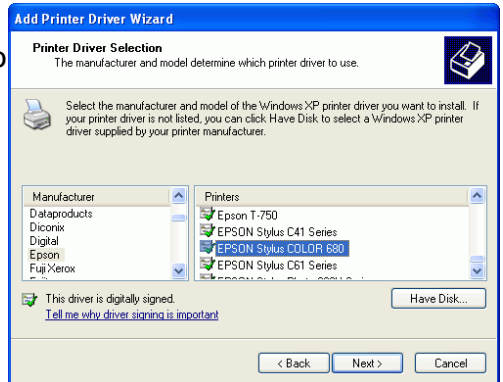
Click on **Advanced** tab to see if the driver of EPSON Stylus COLOR 680 has been installed before.

If yes, click **OK** to complete the change.

If not, click **New Driver** and follow the instructions to install it.



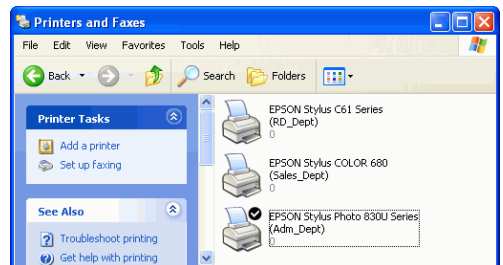
If New Driver is selected, this screen will prompt to instruct you to install new driver step by step.



Step 4 :

When installation of new printer driver is complete, the Printers and Faxes screen will look like this.

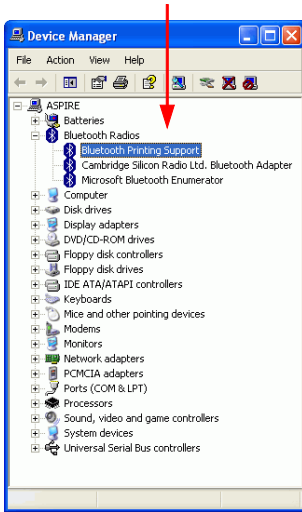
EPSON Stylus COLOR 680 (Sales_Dept) is coming out as the new printer.



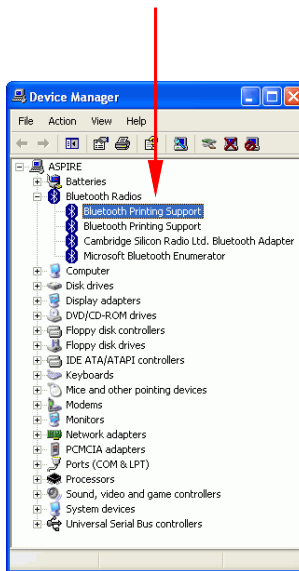
MORE LOOK ON BLUETOOTH DRIVER

The item with the label **Bluetooth Printing Support** will be added to your Bluetooth Radios when you add new Bluetooth printer.

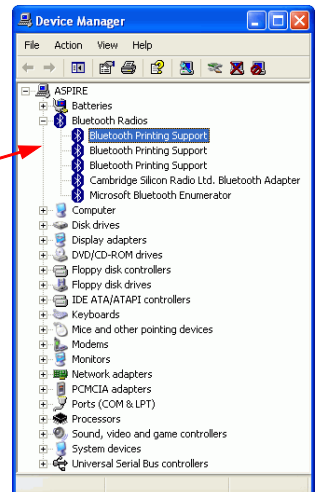
1. After the first EPSON Stylus C61 Series (Sales_Dept) printer is installed.



2. After the second EPSON Stylus C61 Series (RD_Dept) printer is installed.



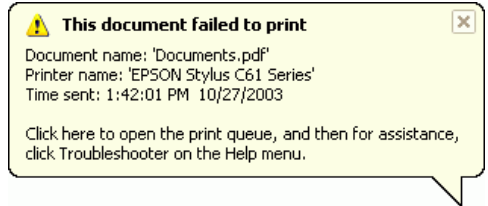
3. After the third EPSON Stylus Photo 830U Series (Adm_Dept) printer is installed.



PRINTER ERROR MESSAGE

There are some conditions which will stop the printing process :

1. INKs 100% run out.
2. Paper Jam.
3. Printer is BUSY.
4. Printer is not turned on.

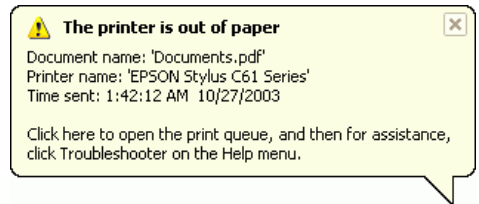


When the above conditions occurred, PC will pop out a failed to print message on the screen one minute later. User can clean the problem and continue the printing after.

- INKs run out - Replace new INKs for your printer.
- Paper Jam - Remove jamed paper.
- Printer BUSY - Check if there is any error in feeding paper to the printer. Some printers may have problem in feeding paper. The sympton looks like Paper Empty. You can push a button on printer to let it retry. Read the printer manuals to know how to do it. If it is impossible to continue, then you have to cancel the printer job.

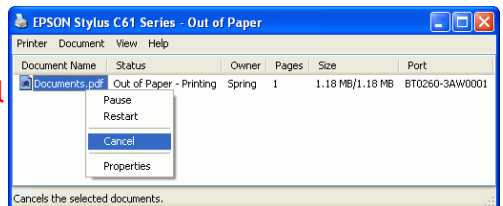
5. Paper empty.

If it is out of paper, this screen will pop out.



X-Micro Combo Bluetooth Printer Adapter will continue the printing if the error condition is cleaned. It will not stop unless you cancel it.

Example :



Cancel an out of paper job.


You can read the following paragraphs to know how to cancel a printing job, or how to reset a Bluetooth operation.

1. Start



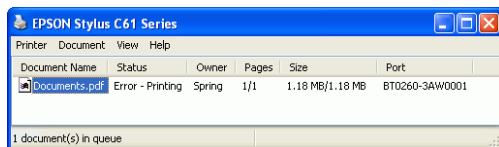
2. Printing job in process.



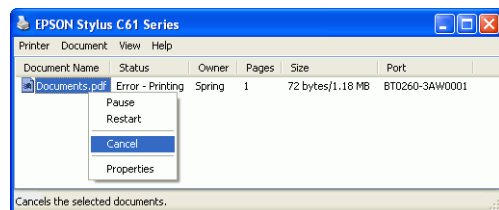
3. Printing job has error. Double click on printer icon  to read the message.



4. Error message.



5. Right click on the file being printed, and select **Cancel** to stop it.

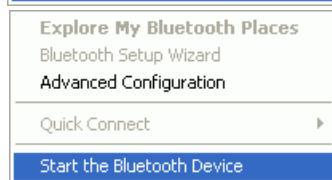


If there is any Bluetooth operation hanged, you can use the following steps to clean it.

Right click on green Bluetooth icon on lower-right corner of your screen. Select **Stop the Bluetooth Device**.



Right click on red Bluetooth icon on lower-right corner of your screen. Select **Start the Bluetooth Device**.



Bluetooth is reset to normal condition.



APPENDIX A

Specifications :

Product Name	X-Micro Combo Bluetooth Printer Adapter
Model Name	XBT-PACX
Certification	FCC, CE
Standard	Bluetooth v1.1
Frequency Band	2.4~2.4835GHz unlicensed ISM band
Spread Spectrum	FHSS (Frequency Hopping Spread Spectrum)
Services Supported	SPP and HCRP print services
Data Rate	1 Mbps
RF Output Power	Class 1; 13 dBm typical
Antenna	Embedded PCB antenna
Working Distance	Up to 100 meters in free space
Sensitivity	<-88dBm at < 0.1% BER
Input Power	7.5V DC
I/O Interface	USB, IEEE-1284
LED Indicators	Power / Bluetooth active /Printing active
Operation Temperature	0 °C ~ + 60 °C
Storage Temperature	-10 °C ~ +70 °C
Humidity	5 ~ 90% non-condensing
Size	81 (L) x 54(W) x 21(H) mm

APPENDIX B

Safety Guide :

- Read and follow all instructions and warnings provided.
- Save these instructions for future use.
- When service or replacement of parts is required, ensure work is done by a qualified technician.
- Do not use this unit near water or in a rainy/moist environment.
- Use supplied cables only.
- Do not attempt to service this product yourself. Doing so will expose you to various hazards including dangerous voltage.
- This unit is suitable for a 110V to 230V AC power supply (Auto-detect).
- Disconnect the power cable (pull plug) and USB cable in the following situations :
 - In the event of service.
 - Power cable/plug becomes damaged.
 - Unit is exposed to excess moisture/rain
 - Unit has been dropped.
 - Unit is being cleaned.
- Unit must be used with adult supervision at all times. Children must not be allowed to handle any of the cables.
- Never insert any objects other than CDs in the trays.
- Never insert any objects through ventilation holes.

Remember !

Any electrical equipment is hazardous if handled improperly.

FCC COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning:

To meet FCC requirements, a shielded power cord is required in order to prevent interference. It is essential that only the supplied power cord is to be used. Use only shielded cables to connect I/O devices to this equipment. You are cautioned that changes or modifications not approved by the party responsible for compliance could void your authority to operate the equipment.

X - MICRO
Plug & Fly

www.x-micro.com