TOSHIBA

TOSHIBA TEC SINGAPORE PTE. LTD.

Specification For : TRST-P1X and TRST-P2X
Windows Driver Manual

(Software / ~~Product~~)

Model : TRST-P1X / TRST-P2X

7th Revision : (04-August-2021)

CHANGE RECORD				
REV	DATE	Page	DESCRIPTION OF CHANGE	APPROVAL
01	20/Apr/20		Initial version	
02	24/Apr/20	P4 P13 P22-23 P28-30 P36 P39-41 P43 P43 P58-66	Added information in "Overview" Added information for driver location Modify instruction on "Add Printer with LAN Interface" Added information to change the Printer Interface Update information on uninstallation process Update example of True Type Font Substitution Update information for default log file location Added explanation about ControlA Font Added Printer Device Font	
03	08/May/20	P49-50 P56-57 P63	Modify Document Layout Modify Document Layout Remove comment box that not refer anything	
04	22/May/20	P1,7,61,62 P4,7,13,31 P29-30 P42-43 P64-68	Change TRSTPXX ==> TRST-P1X and TRST-P2X Driver name change to TEC WinDriver Additional information about setting Serial communication parameter Added Example for Control & ControlA Font Remove Italic & Bold Font from sample code	
05	15/June/20	P4 P6,10 P7	Change versioning from V3.XX to V1.3.XX.XXX Change GUI & details for reboot after installation Update folder installation GUI	
06	03/Aug/21	Pi P5,P9	Remove confidential and remove approved table Remove GUI for selected Printer Model	
07	04/Aug/21	P4 P52 P49-P59	Change versioning from V1.3.XX.XXX to V3.21.X.X Remove Watermark Section Change GUI after removing Watermark tab in Printing Preferences	

Table of Contents

1. Overview

This document contains information about Windows Printer Driver installation, Printer Properties and Printing preferences provided for the following printers:
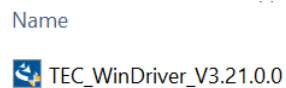
- TRST-P1X / HSP-150
- TRST-P2X / HSP-100

These instructions cover the driver version **V3.21** for **Windows 7 (32 bit & 64 bit) and Windows 10 (32 bit & 64 bit)**
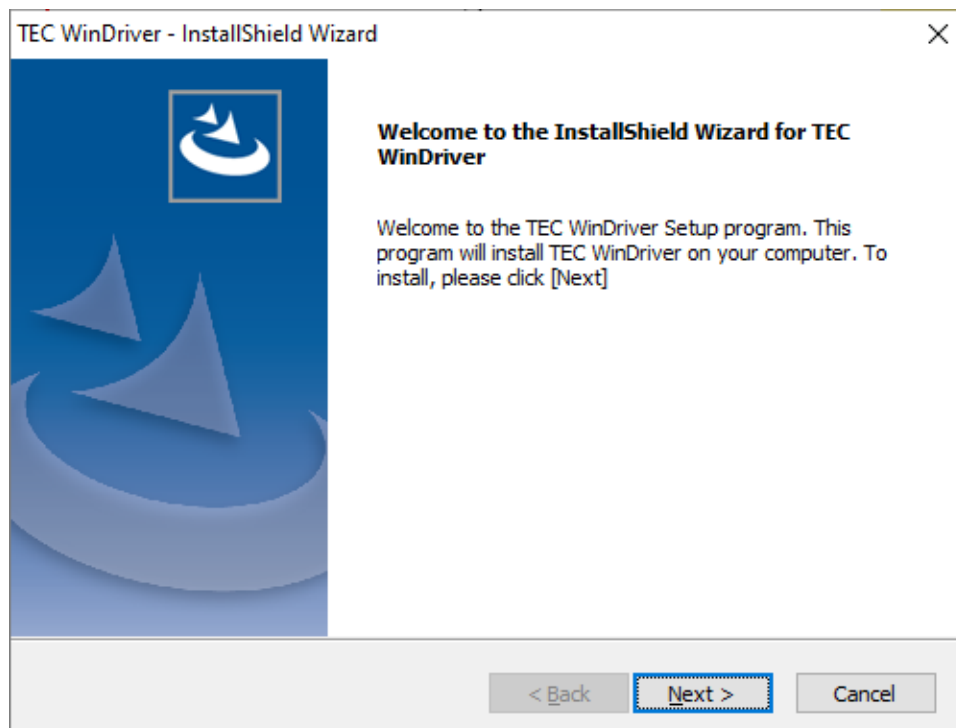
2. How to install the Printer Driver
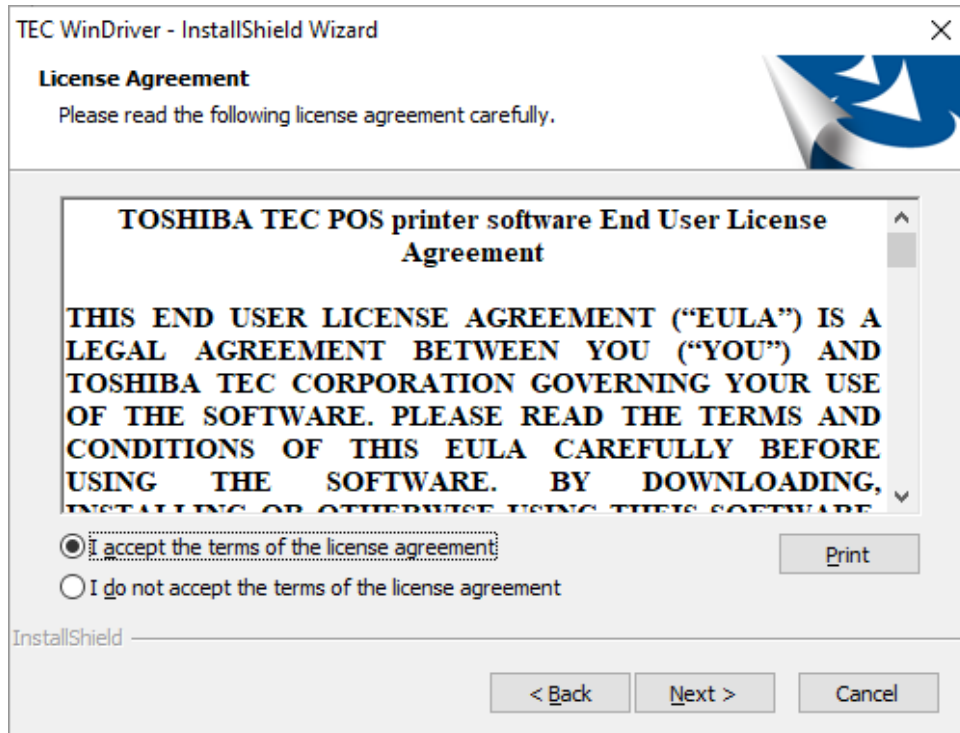
2.1 Install by using installer application (USB connection)

To start the installation, please select and run the "TEC_WinDriver_V3.21.X.X"

Name
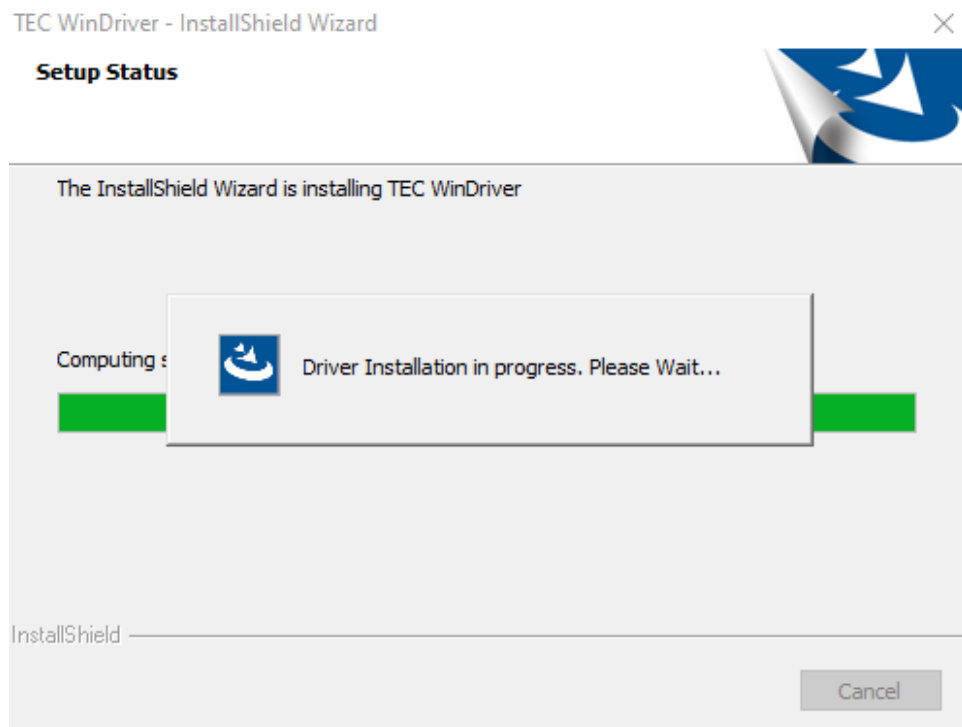
TEC_WinDriver_V3.21.0.0

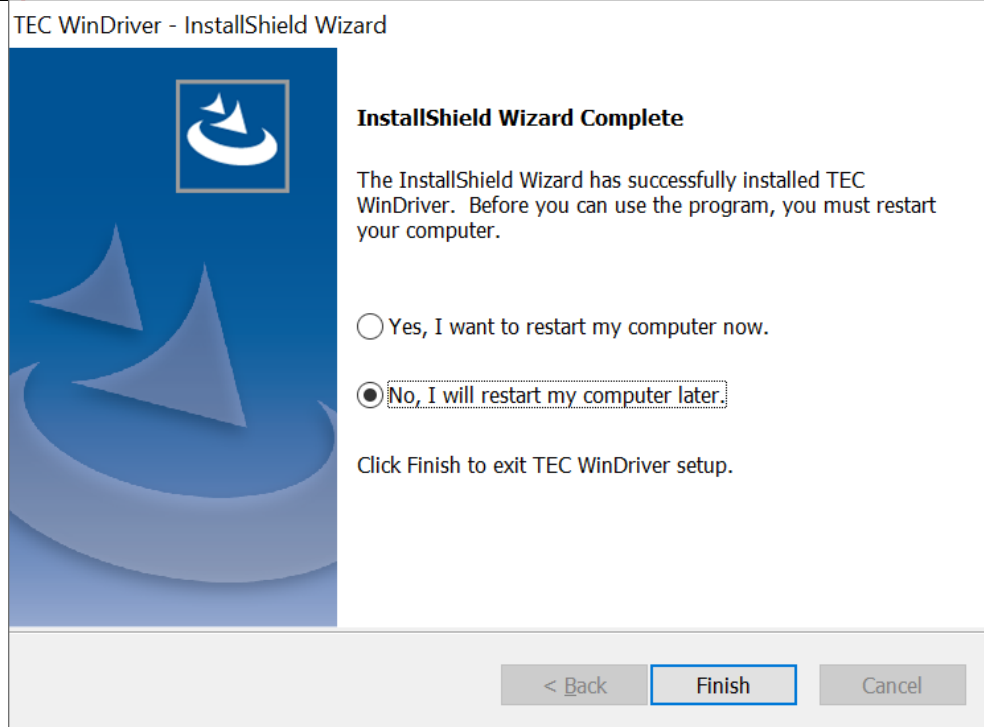Below is Welcome Dialog after run the installer. Click "Next >".

Select Accept the license agreement option. Click "Next >".

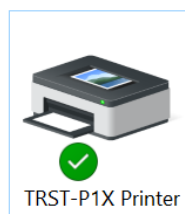Driver Installation Process. Please wait until installation finish

Installation complete. In some case during updating the driver, the printer properties and printer preferences version still refer to previous driver so it is recommended to restart the PC when you perform update driver.

TEC WinDriver - InstallShield Wizard

InstallShield Wizard Complete

The InstallShield Wizard has successfully installed TEC WinDriver. Before you can use the program, you must restart your computer.

○ Yes, I want to restart my computer now.

◉ No, I will restart my computer later.

Click Finish to exit TEC WinDriver setup.
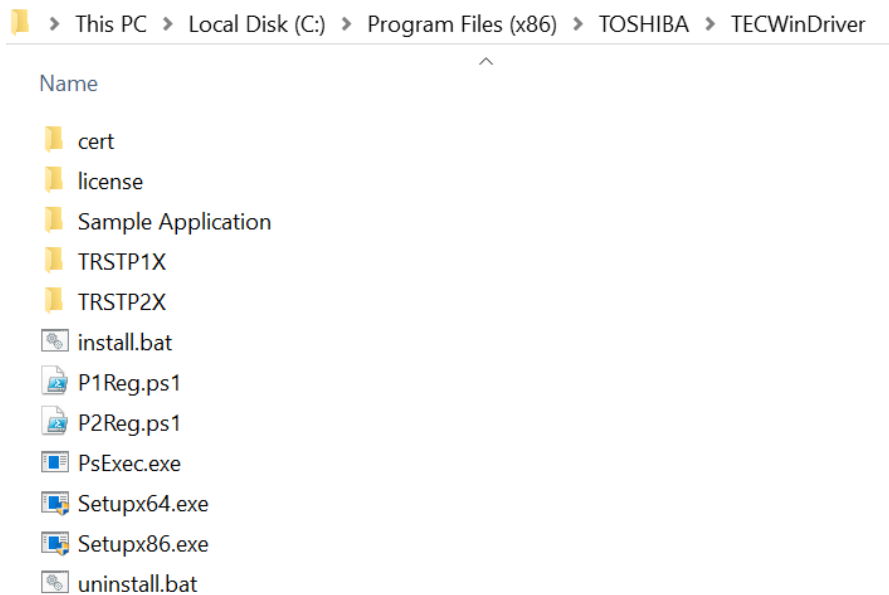
< Back   Finish   Cancel

Click "Finish" to complete the installation.
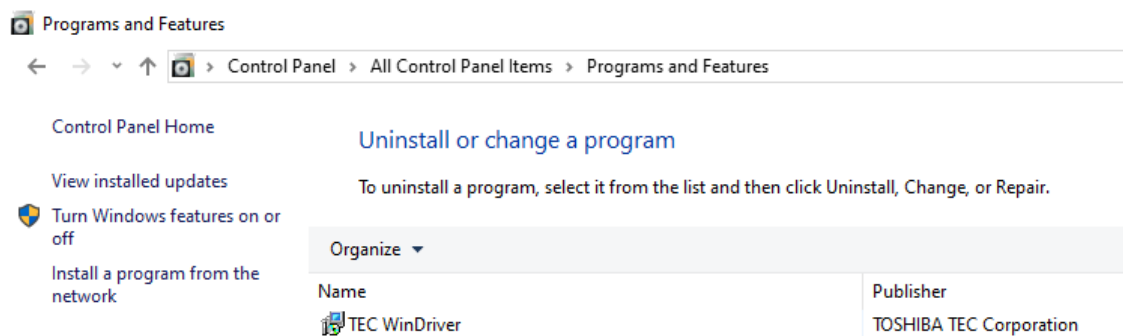
After installation finished, you will see the "TRST-P1X Printer" or "TRST-P2X Printer" icon in the "Devices and Printers" folder.

TRST-P1X Printer

Driver Package Location → C:\Program Files (x86)\TOSHIBA\TECWinDriver
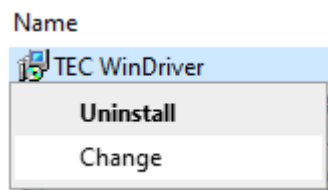

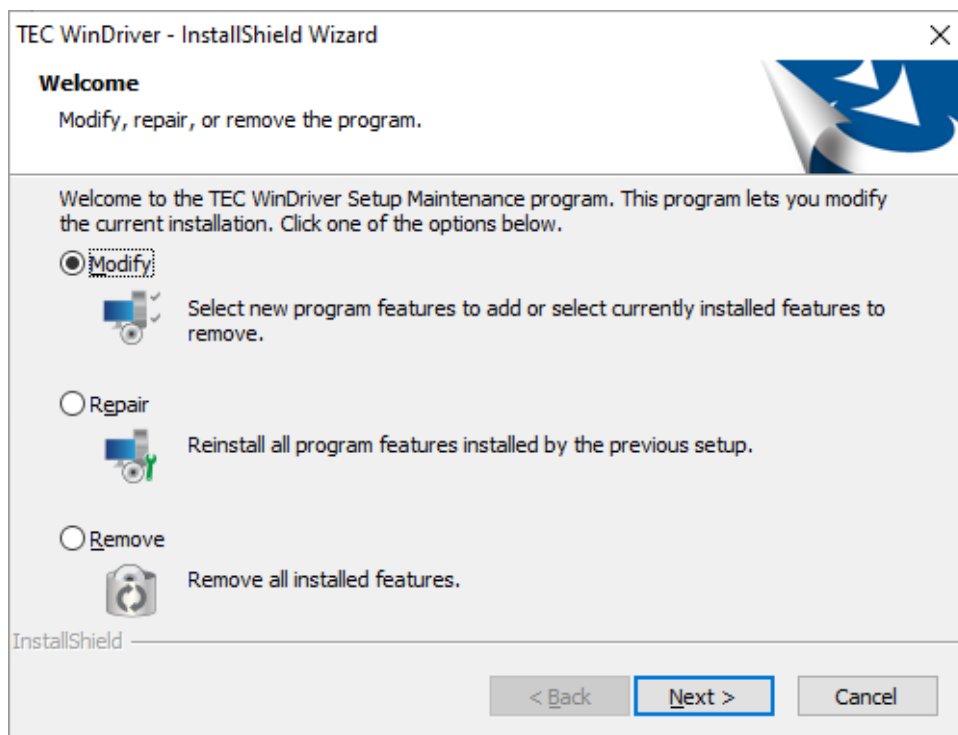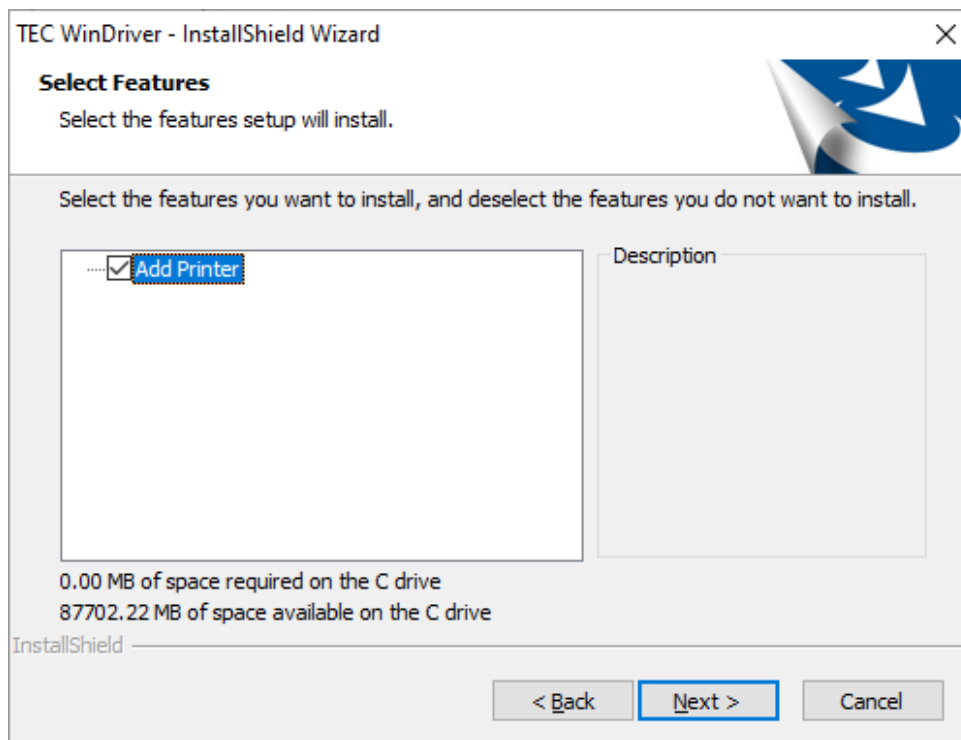The Installer program call "TEC WinDriver" will appear on "Programs and Features"

NOTE:

To add another printer model, please right click the "TEC WinDriver" program on "Program and Features" then select "Change"
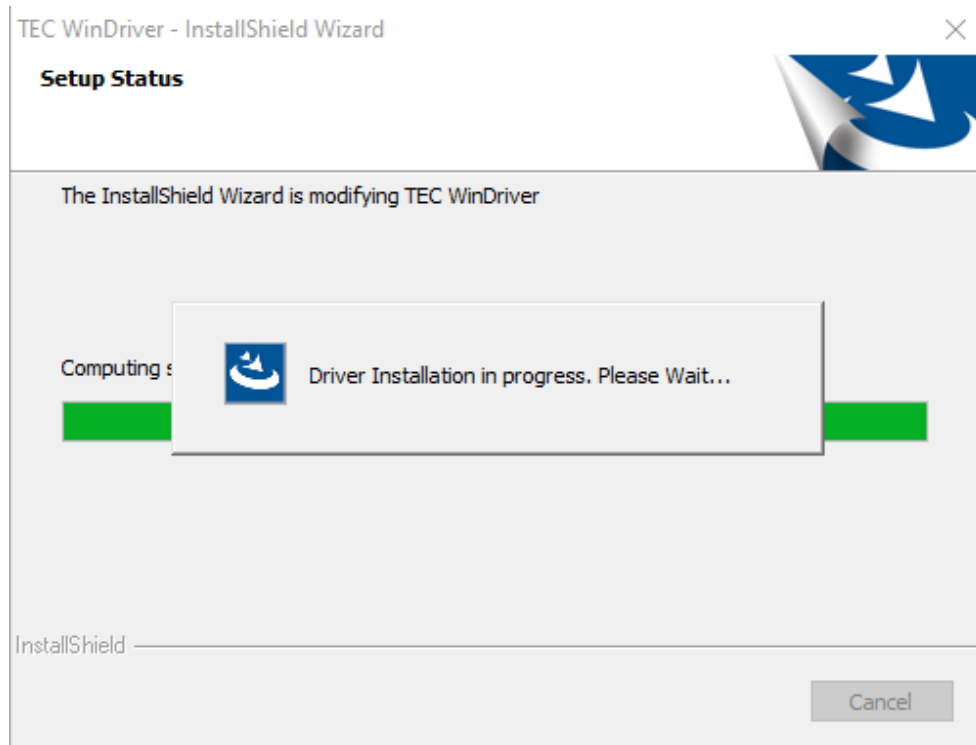

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Select Modify option then click "Next >".

Select Add Printer then click "Next >".

Driver Installation Process. Please wait until installation finish

Installation complete. In some case during updating the driver, the printer properties and printer preferences version still refer to previous driver so it is recommended to restart the PC when you perform update driver.
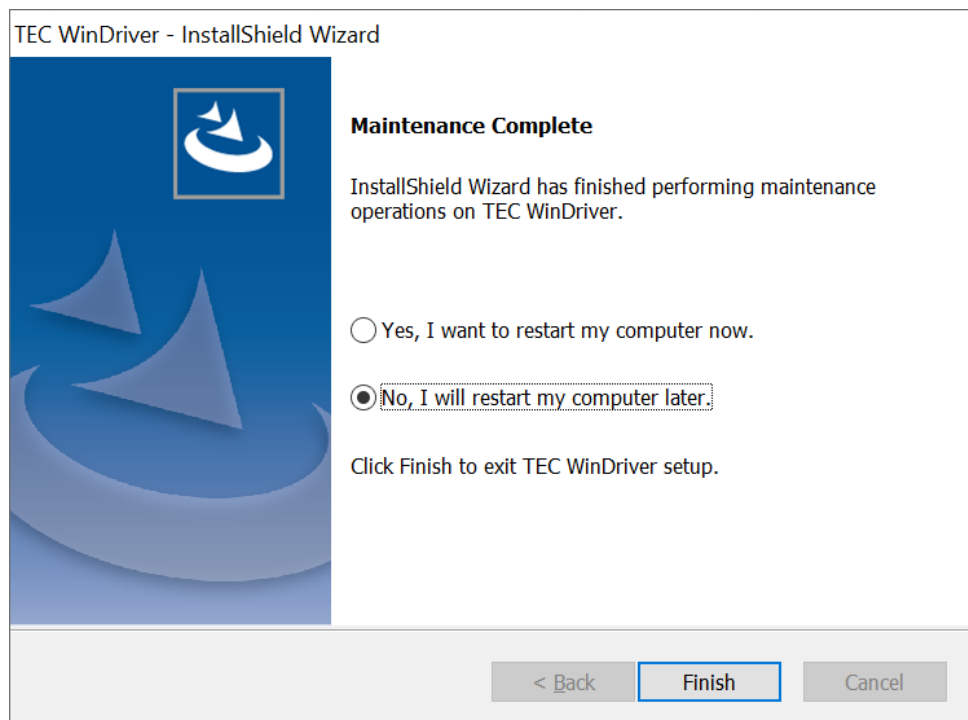
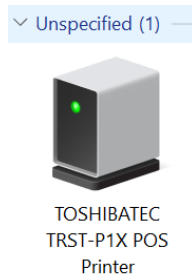Click "Finish" to complete the installation.

2.2 Manual install by using "Add Printer" Wizard
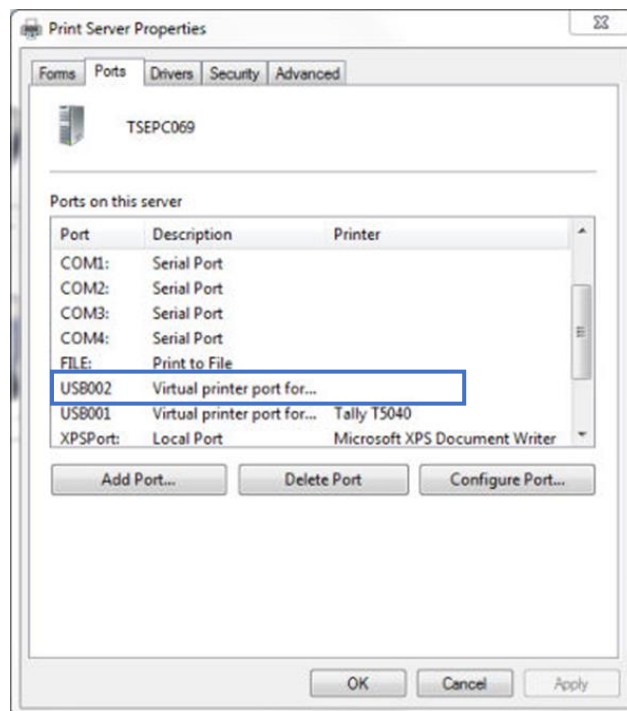
2.2.1 Add Printer with USB Interface

Below is step to install the driver by using USB interface
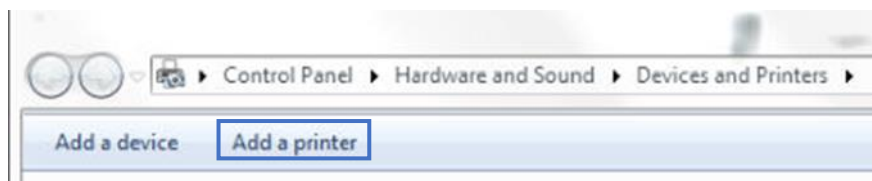
1) Connect printer to PC via USB cable.

It will appear in "Devices and Printers" under Unspecified like below.
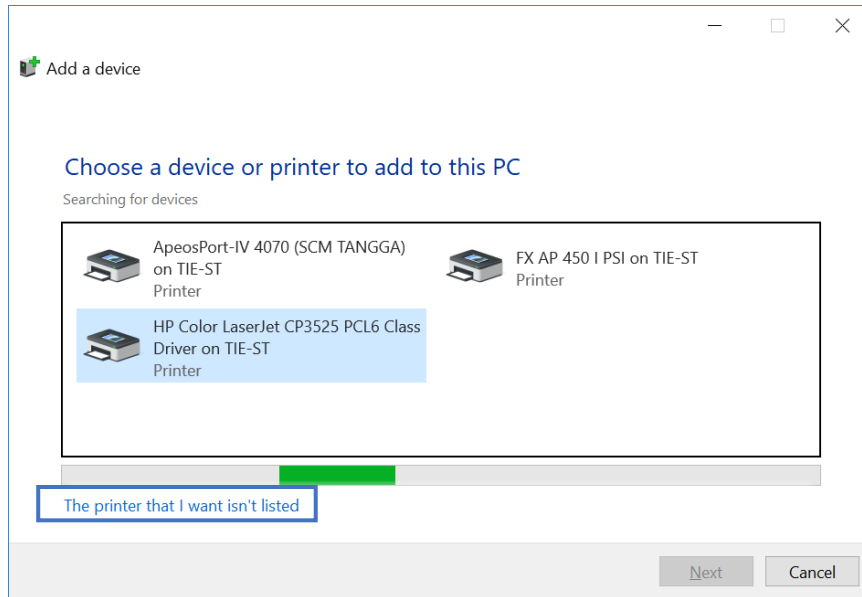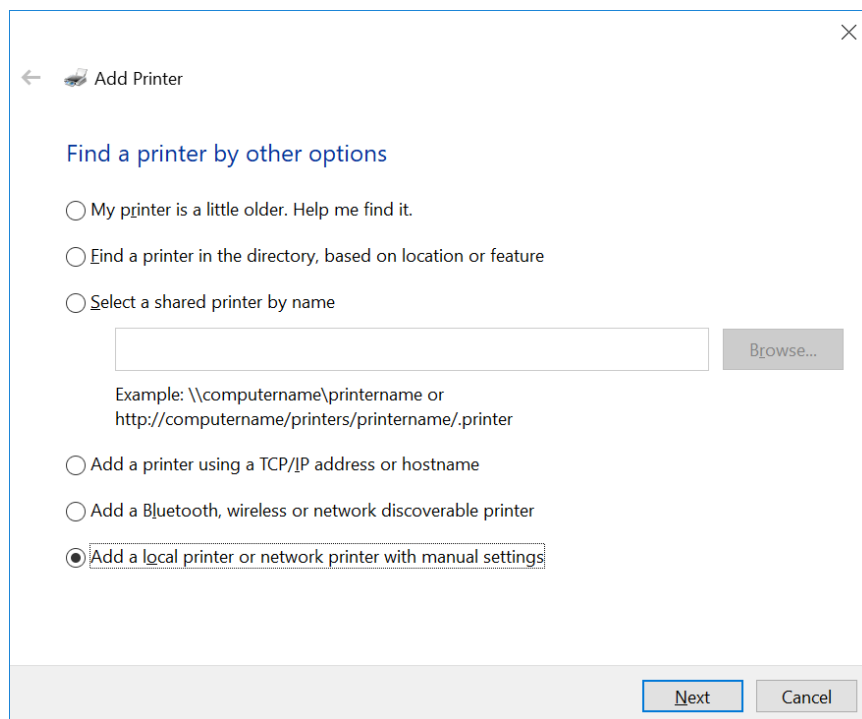
It will create new USB port like below
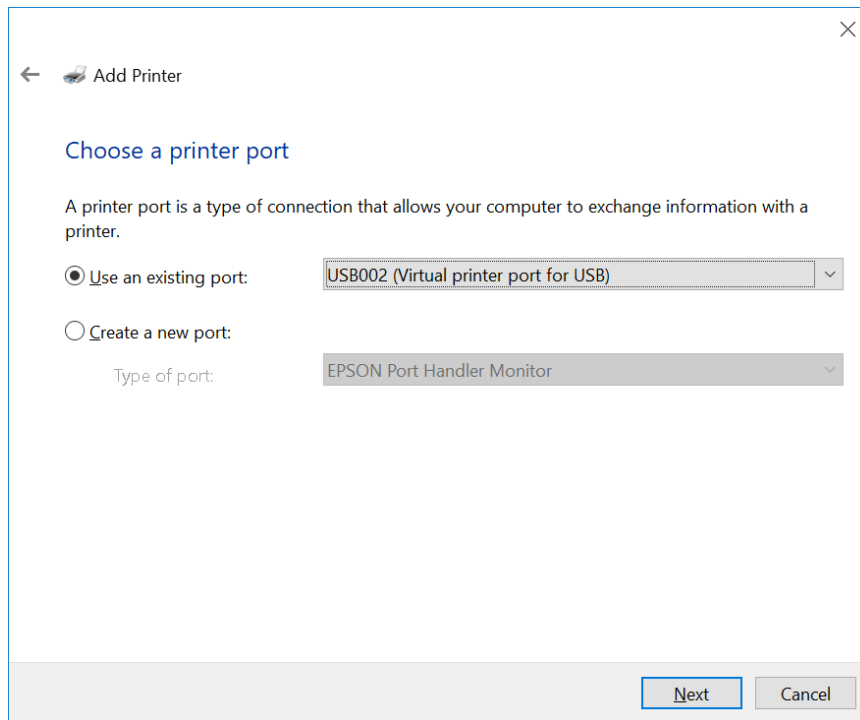
2) Click [Add a printer]

3) Click "The printer that I want isn't listed"

4) Choose "Add a local printer or network printer with manual settings" and click [Next].

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5) Choose a printer port. Select the newly created USB port in Step #1 and click [Next].

6) Click [Have Disk…]
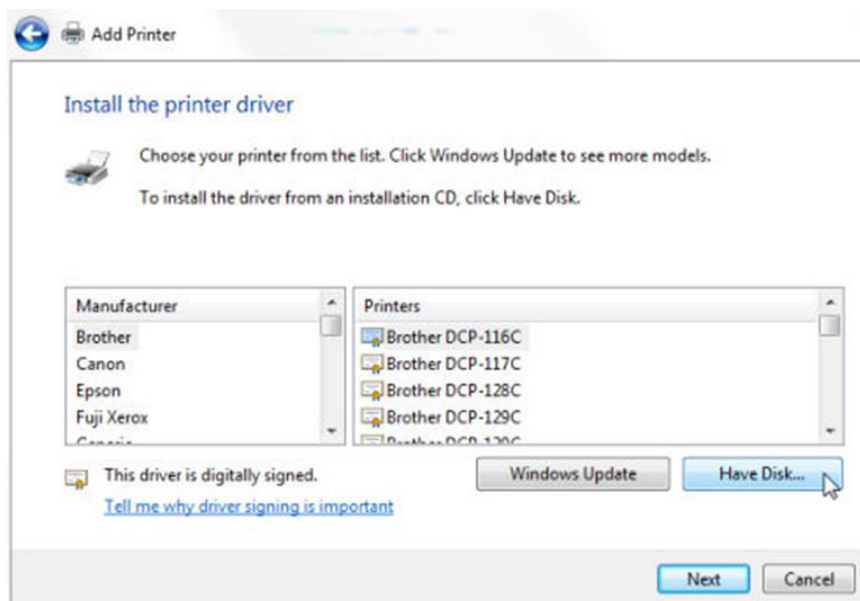
7) Click [Browse…] and find the location of the driver then click [OK].

After install using installer the driver file is located on the following path

C:\Program Files (x86)\TOSHIBA\TECWinDriver

Below is folder location example for TRST-P1X printer

> This PC > OS (C:) > Program Files (x86) > TOSHIBA > TECWinDriver > TRSTP1X

Name

amd64
i386
SmartMaintEvtLog.dll
SMEventLog.reg
trstp1x.cat
TRSTP1X.INF
TRSTP1X.XPD

Locate File ✕

Look in: TRSTP1X

Name	Date modified	T
amd64	4/22/2020 11:14 AM	F
i386	4/22/2020 11:14 AM	F
TRSTP1X.INF	2/26/2020 6:22 PM	S

Quick access
Desktop
Libraries
This PC
Network

File name: TRSTP1X.INF   Open
Files of type: Setup Information (*.inf)   Cancel

8) The driver name should appear as below. Click [Next] until install.

← 🖶 Add Printer   ✕

Install the printer driver

Choose your printer from the list. Click Windows Update to see more models.

To install the driver from an installation CD, click Have Disk.

Printers
TRST-P1X Printer

This driver is digitally signed.   Windows Update   Have Disk...
Tell me why driver signing is important

Next   Cancel

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9) Select desired option then Click [Next]

10) Installation complete. Click [Finish]

2.2.2 Add Printer with Serial Interface

Below is step to install the driver by using Serial interface

1) Connect printer to PC via RS232 cable

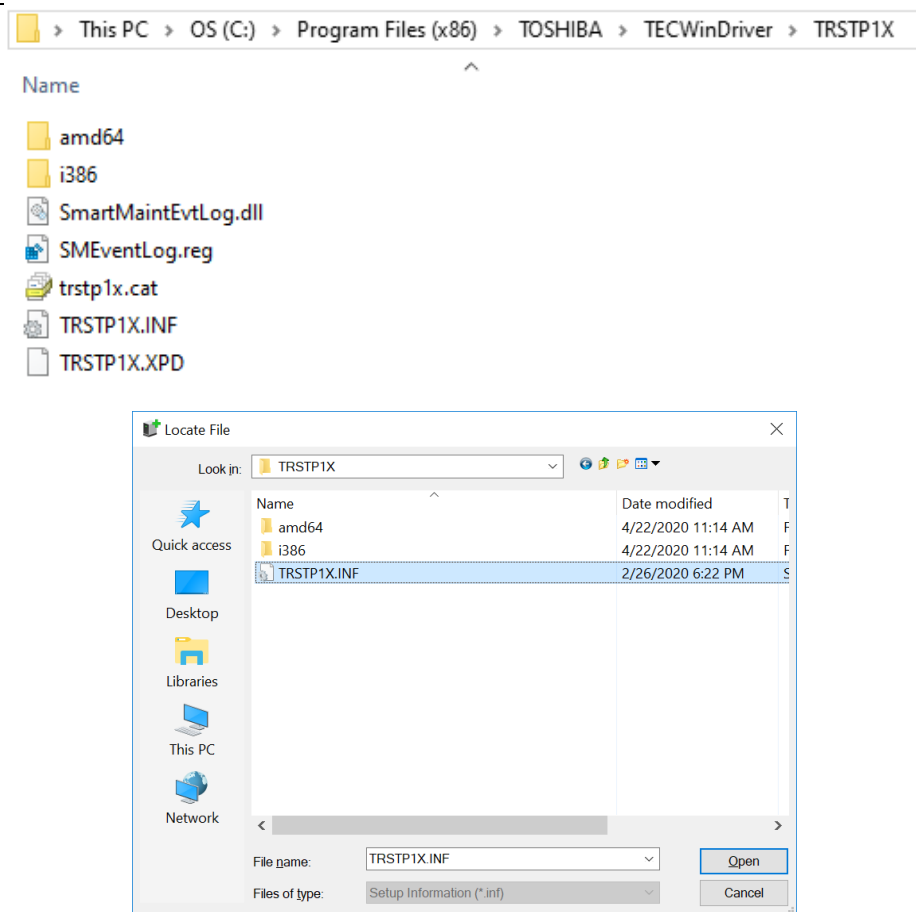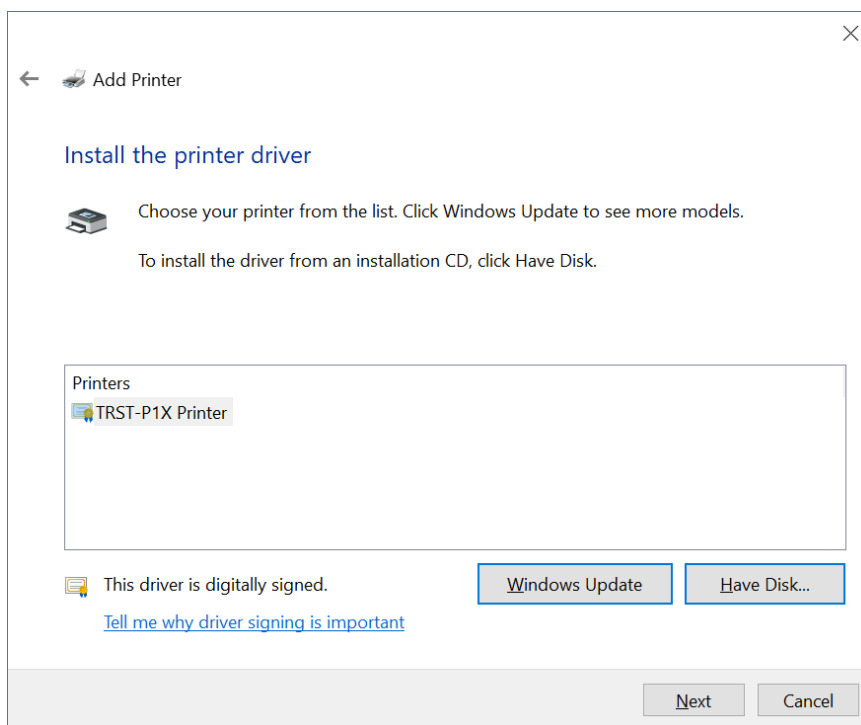2) Click [Add a printer]
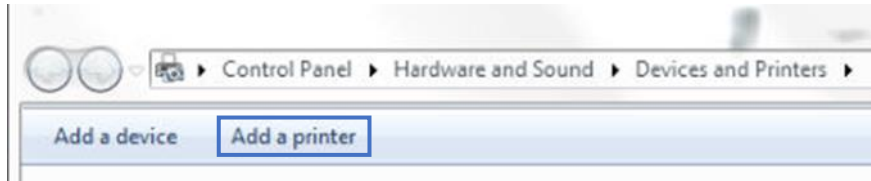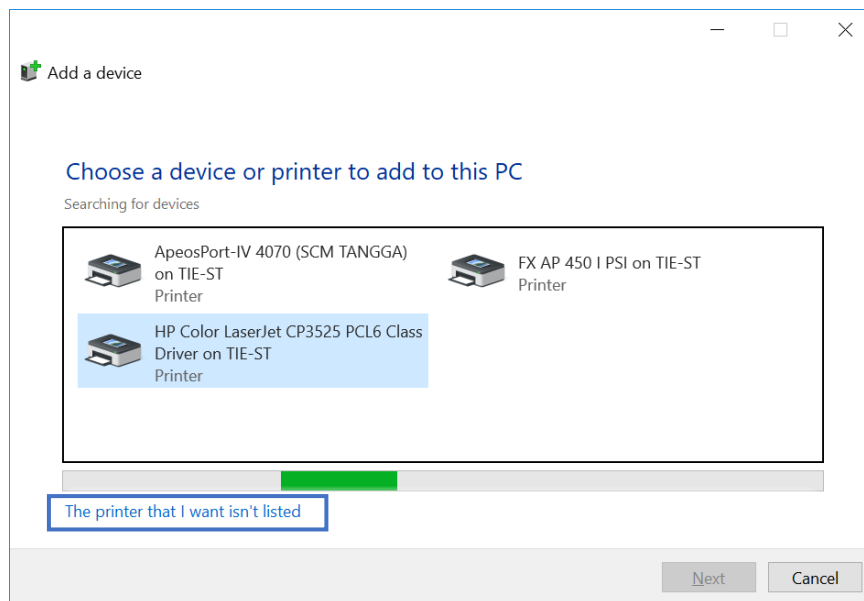
3) Click "The printer that I want isn't listed"

4) Choose "Add a local printer or network printer with manual settings" and click [Next].

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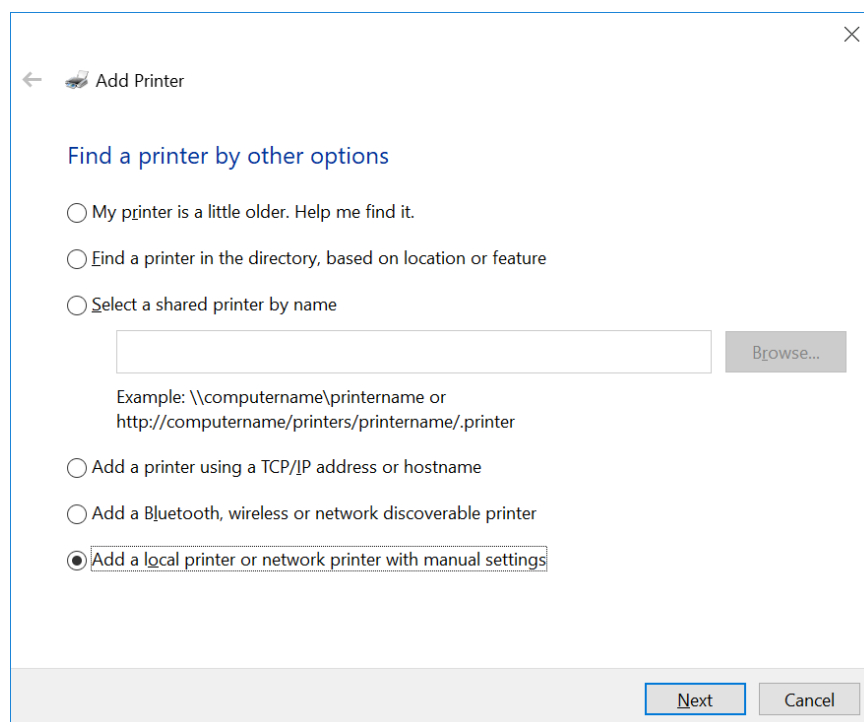
5) Choose a PC COM port that connected to the printer
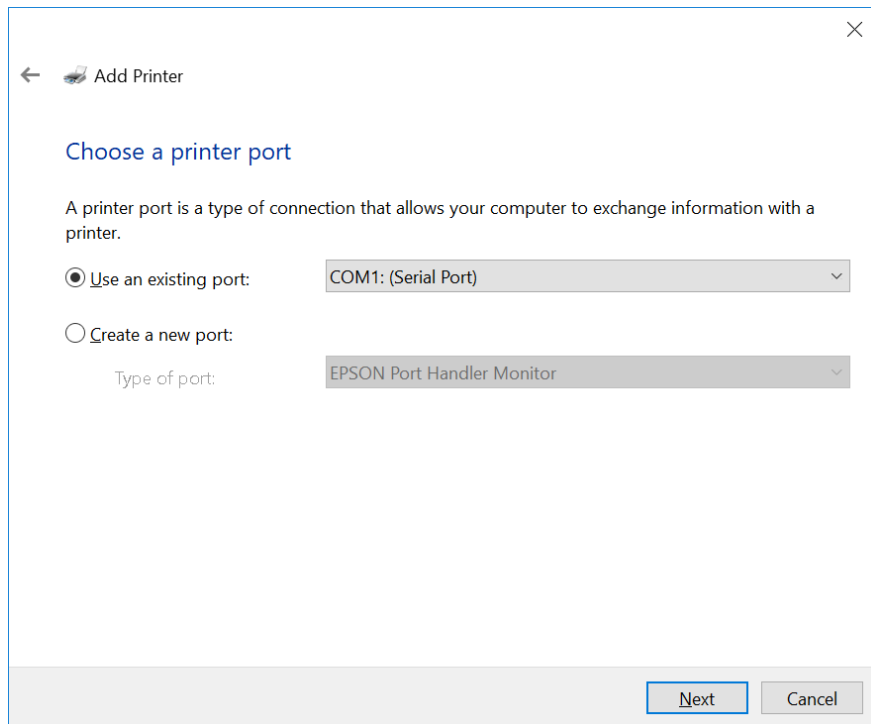
6) Click [Have Disk…]
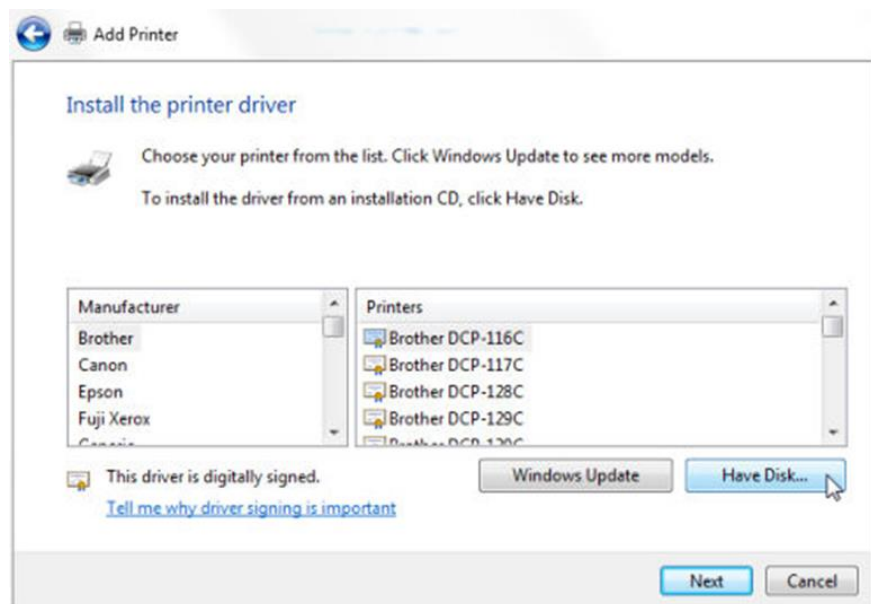
7) Click [Browse…] and find the location of the driver then click [OK]
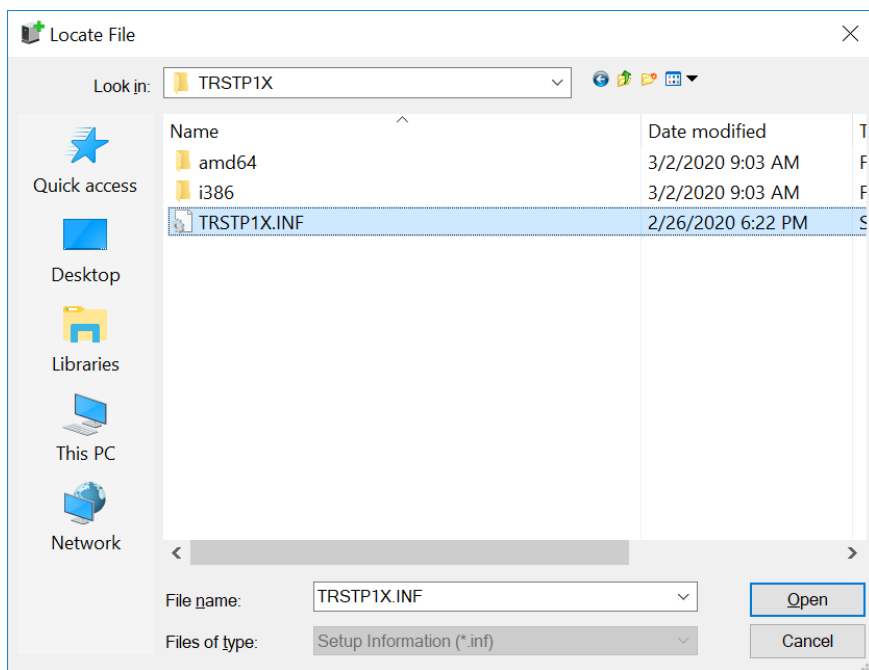
8) The driver name should appear as below. Click [Next] until install.
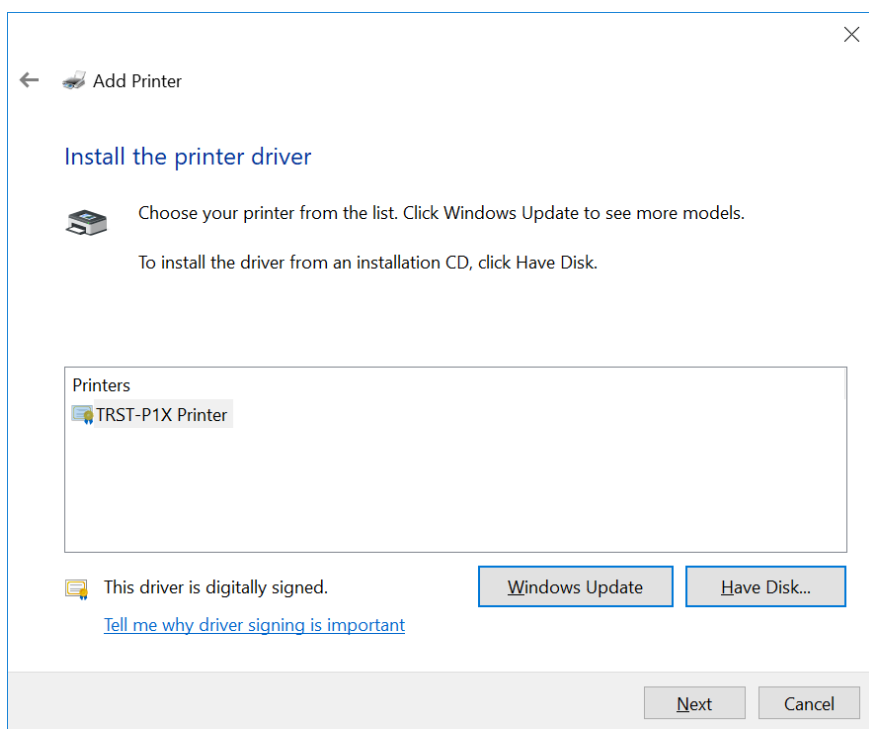
Add Printer

Type a printer name

Printer name: TRST-P1X Printer

This printer will be installed with the TRST-P1X Printer driver.
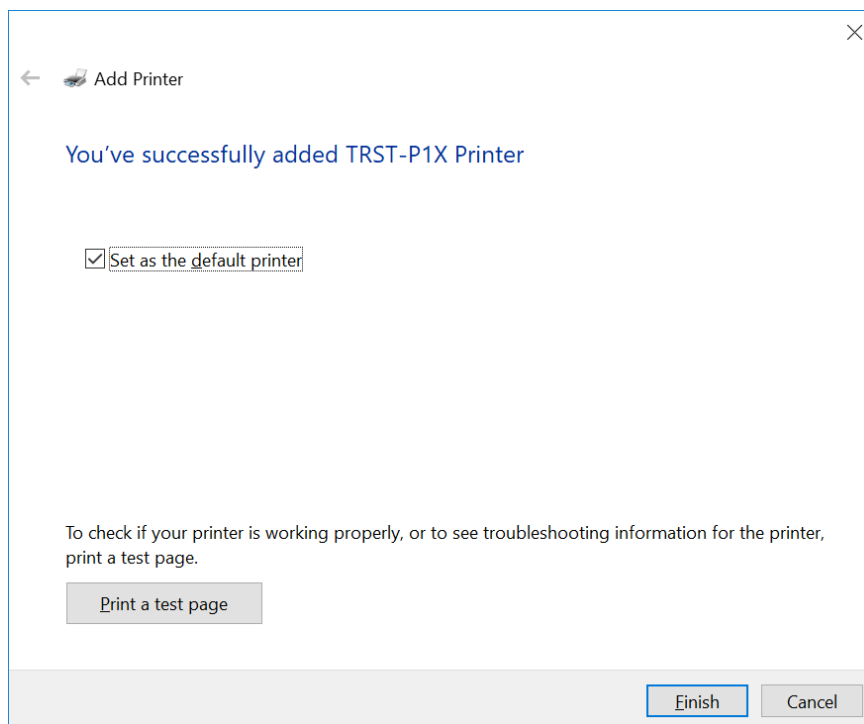
Next   Cancel
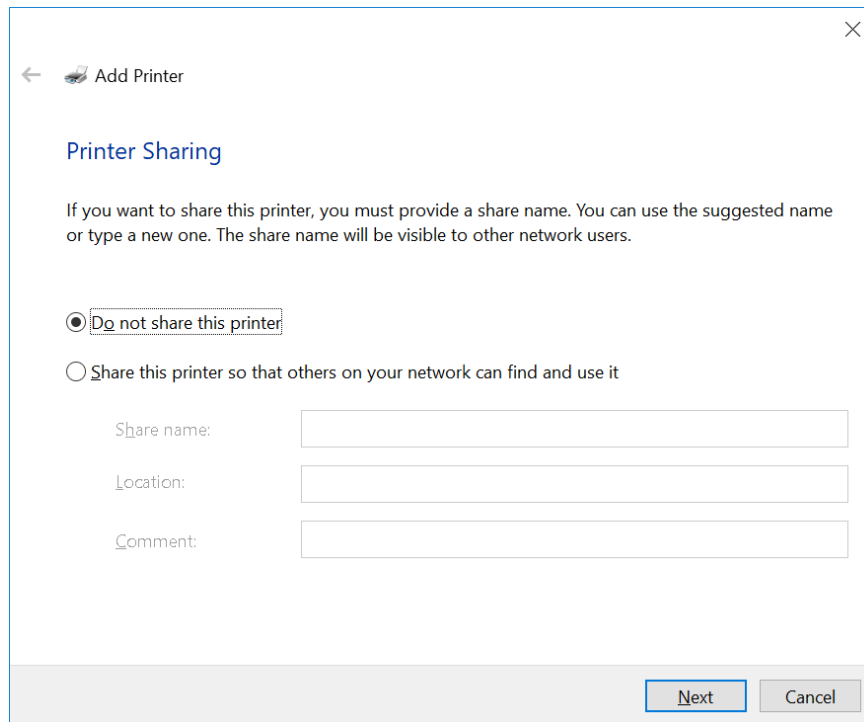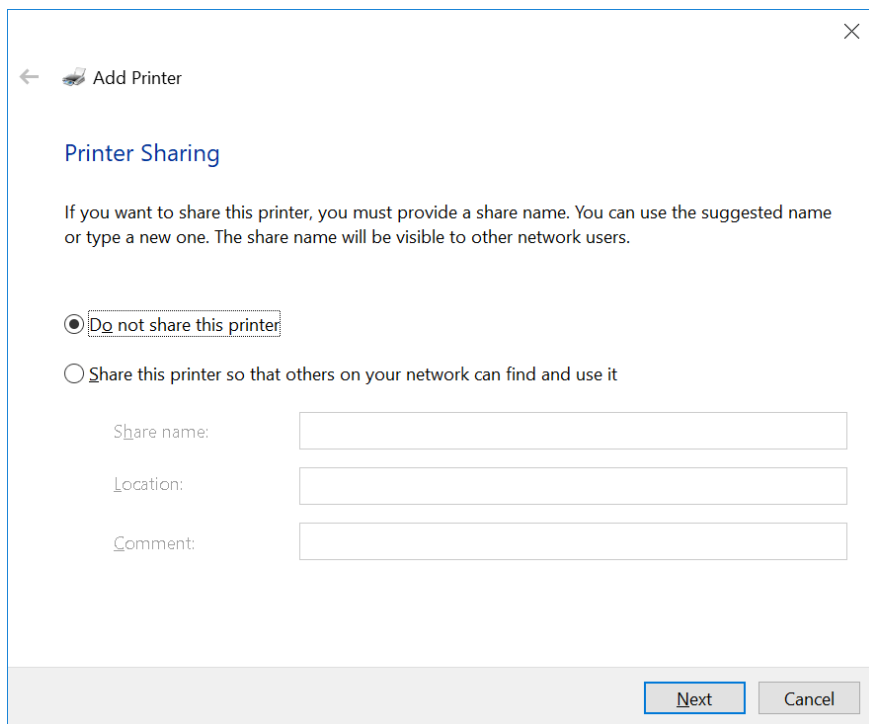
Add Printer

Installing printer...
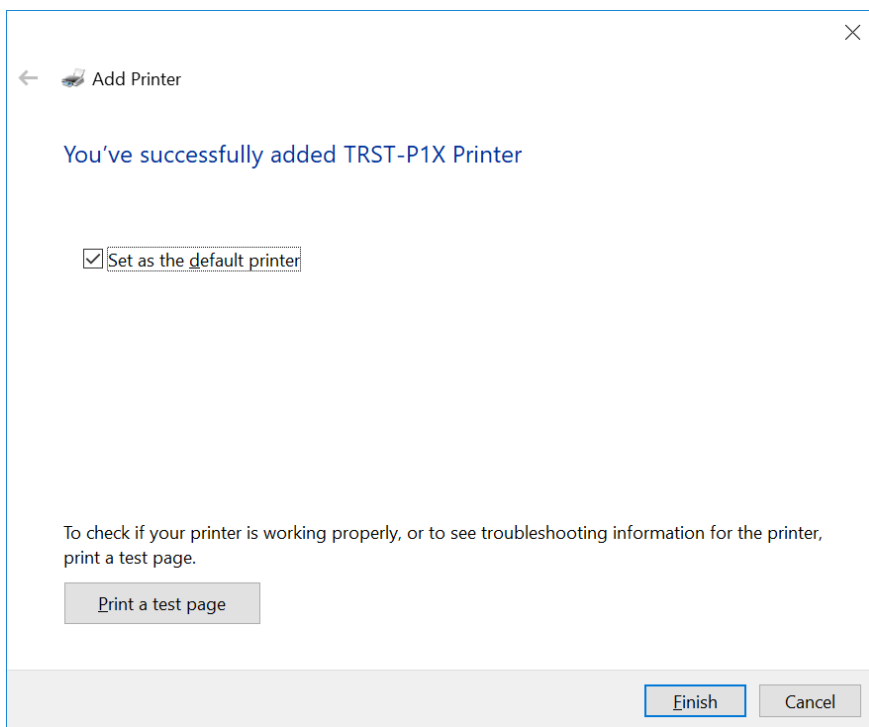
Next   Cancel

9) Select desired option then Click [Next]


10) Installation complete. Click [Finish]

2.2.3 Add Printer with LAN Interface

Below is step to install the driver by using LAN interface

1) Connect printer to PC via LAN cable

2) Click [Add a printer]
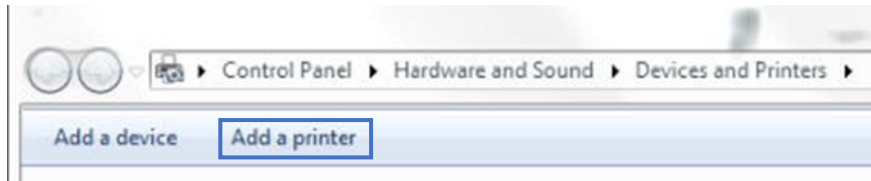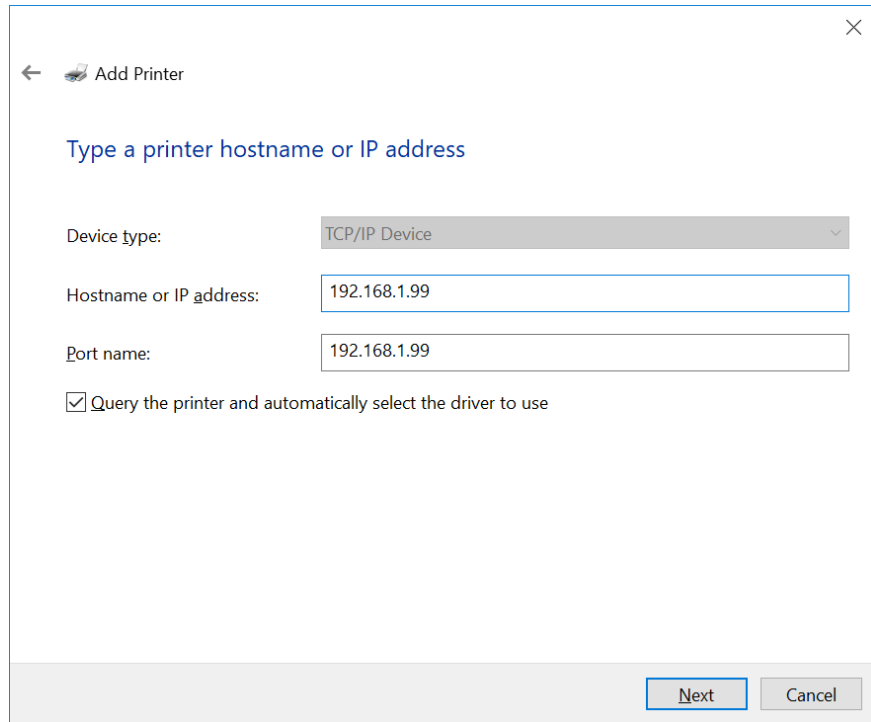
3) Click "The printer that I want isn't listed"
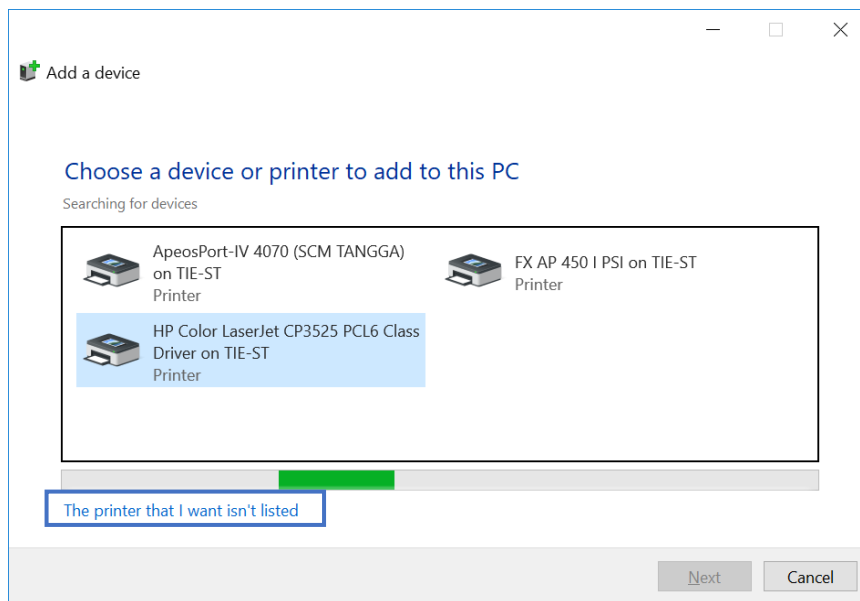
4) Choose "Add a printer using a TCP/IP address or hostname" and click [Next].

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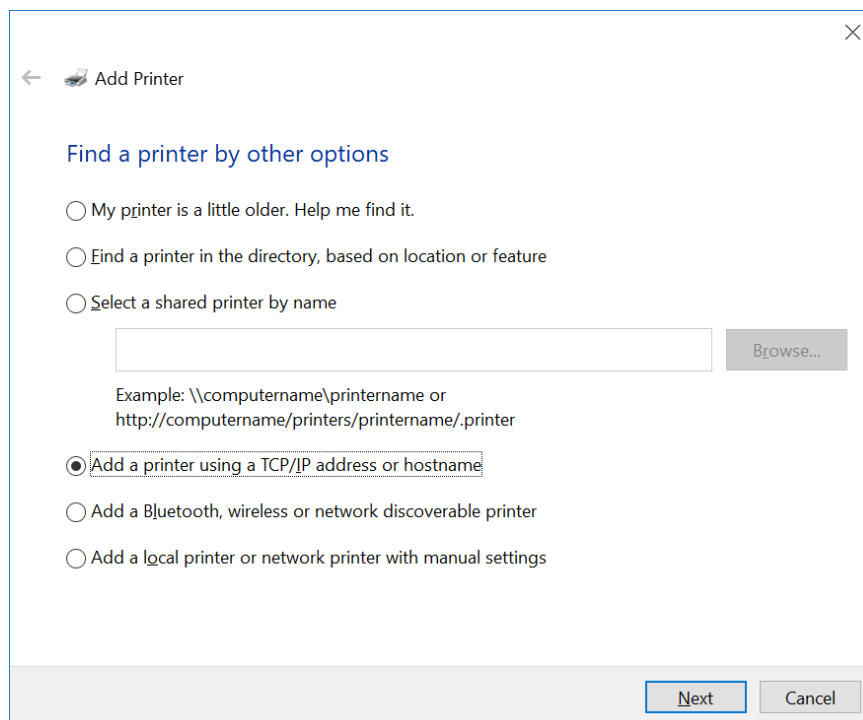
5) Type the Hostname or IP address and the Port name then click [Next]
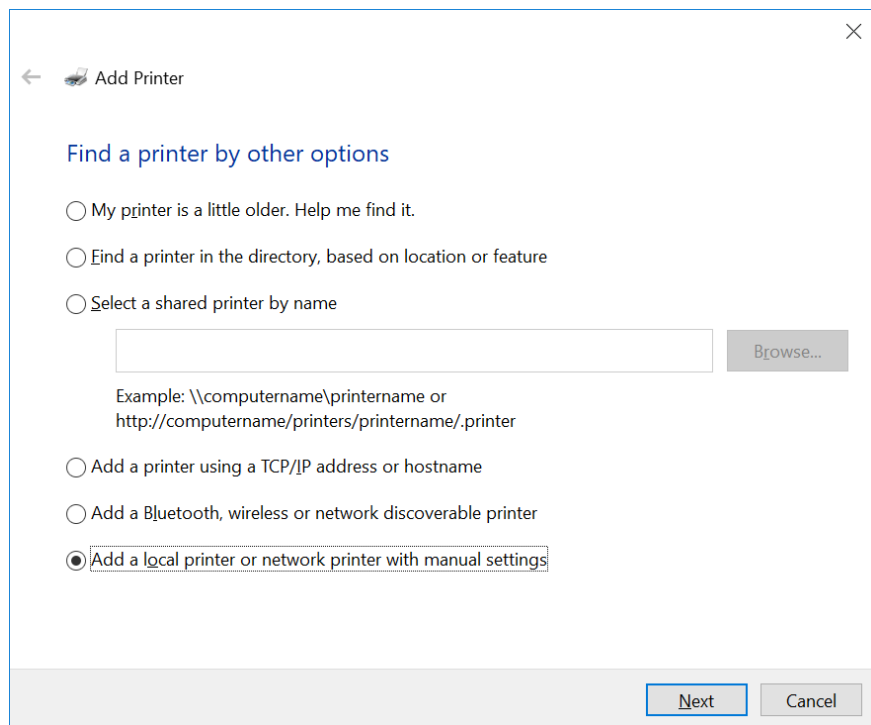
Note:

If TCP/IP Port already added before, select the "Add a local printer or network printer with manual settings" option then select the "Use an existing port" to select the IP address directly
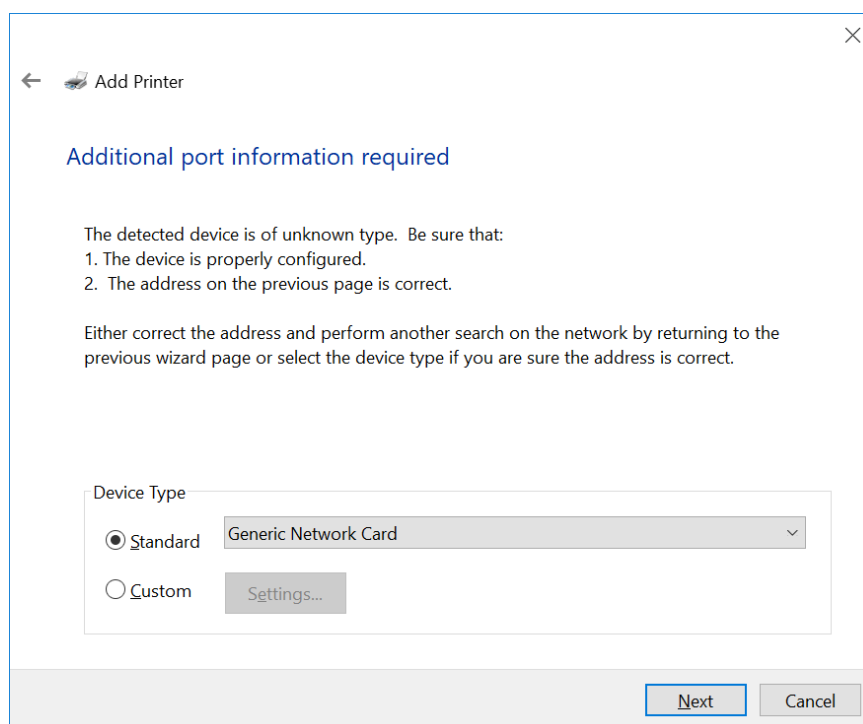
6) Select Device Type then Click [Next]

7) Click [Have Disk…]
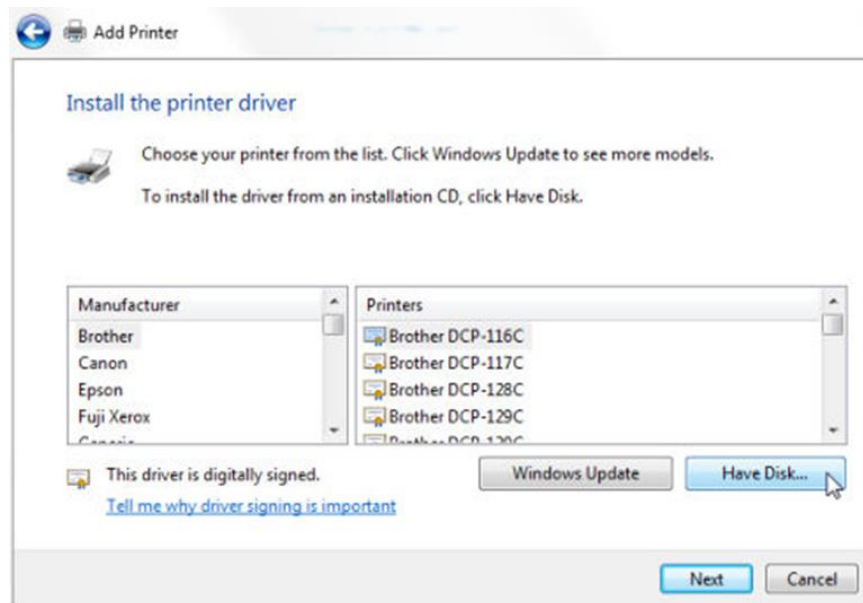
8) Click [Browse…] and find the location of the driver then click [OK]
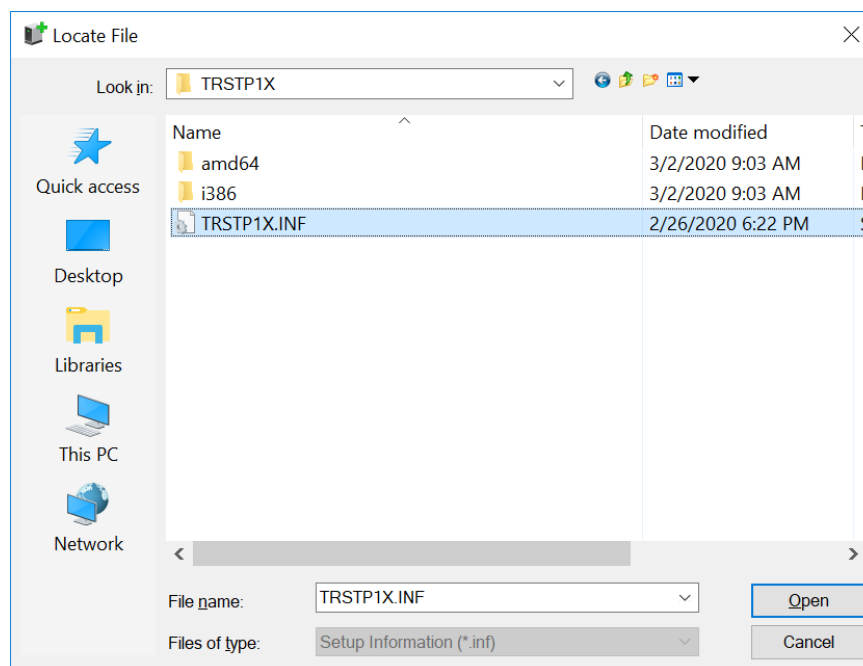
9) The driver name should appear as below. Click [Next] until install.
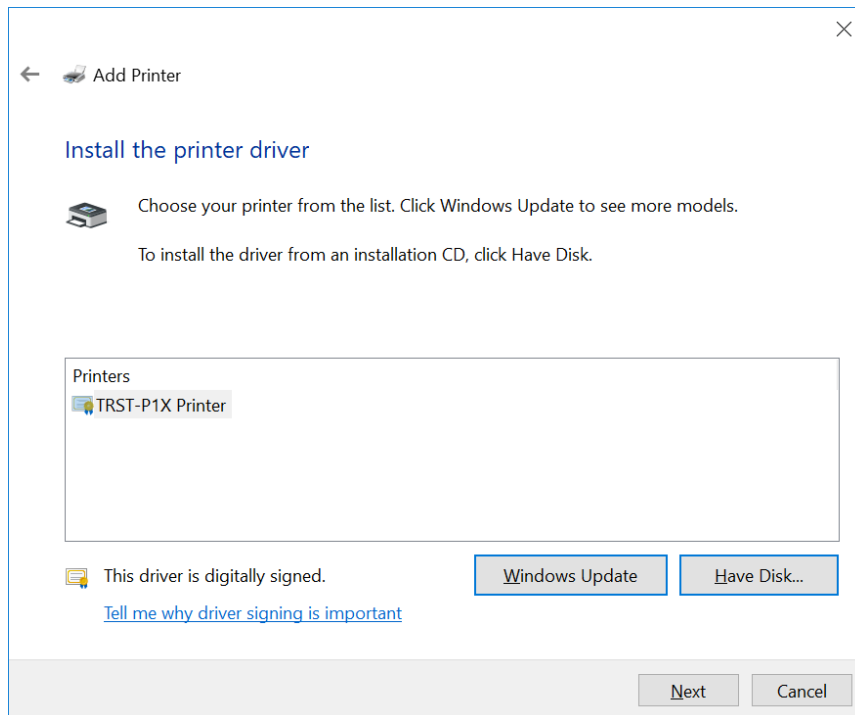
10) Printer name confirmation
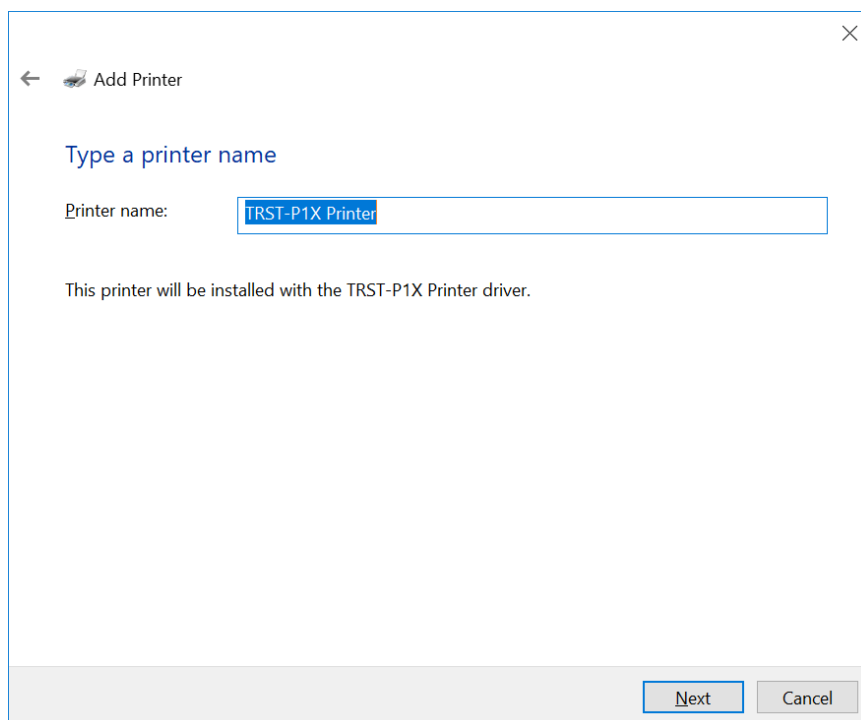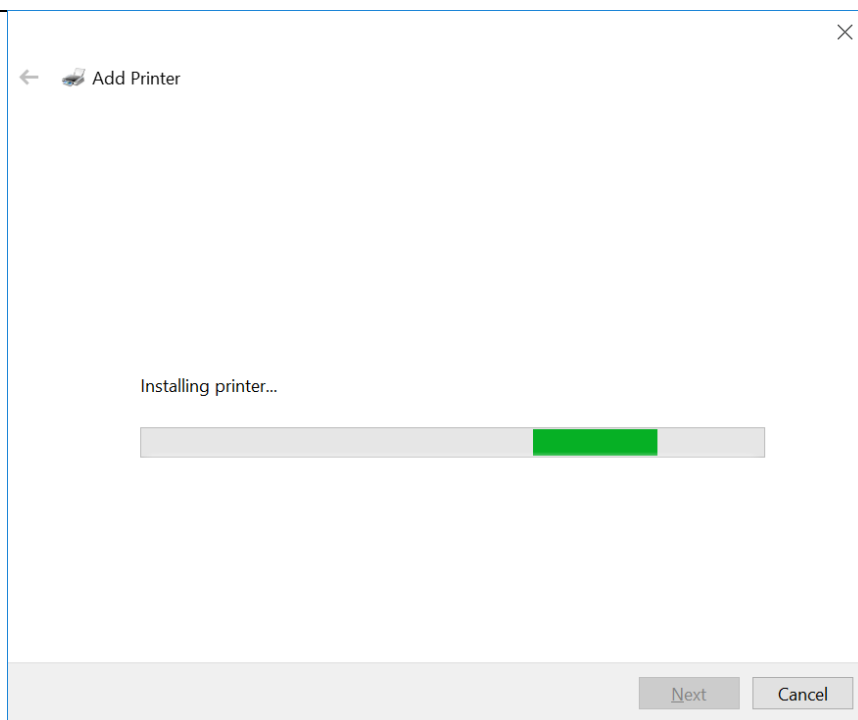
11) Select desired option then Click [Next]
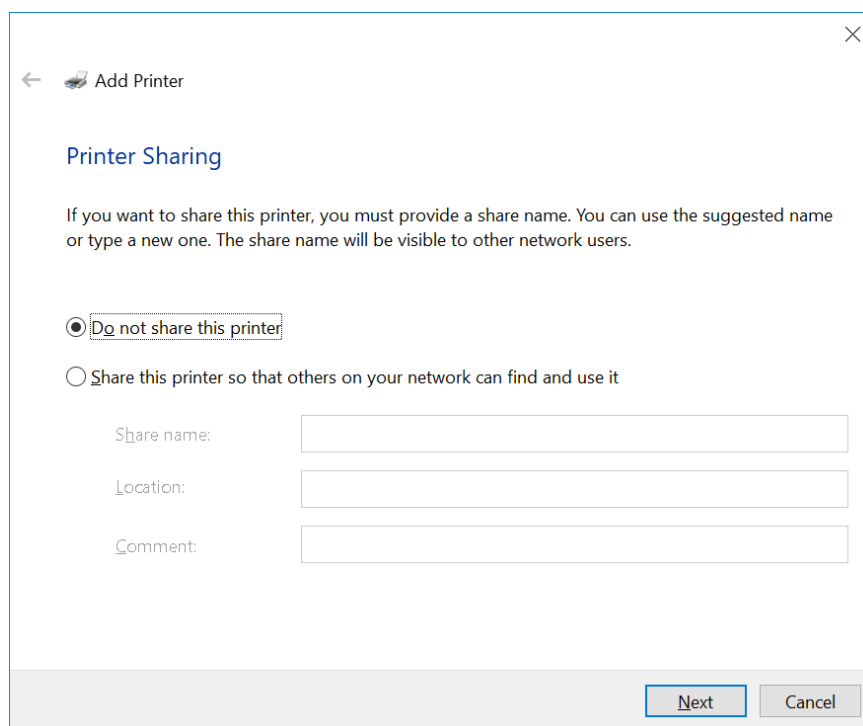
12) Installation complete. Click [Finish]
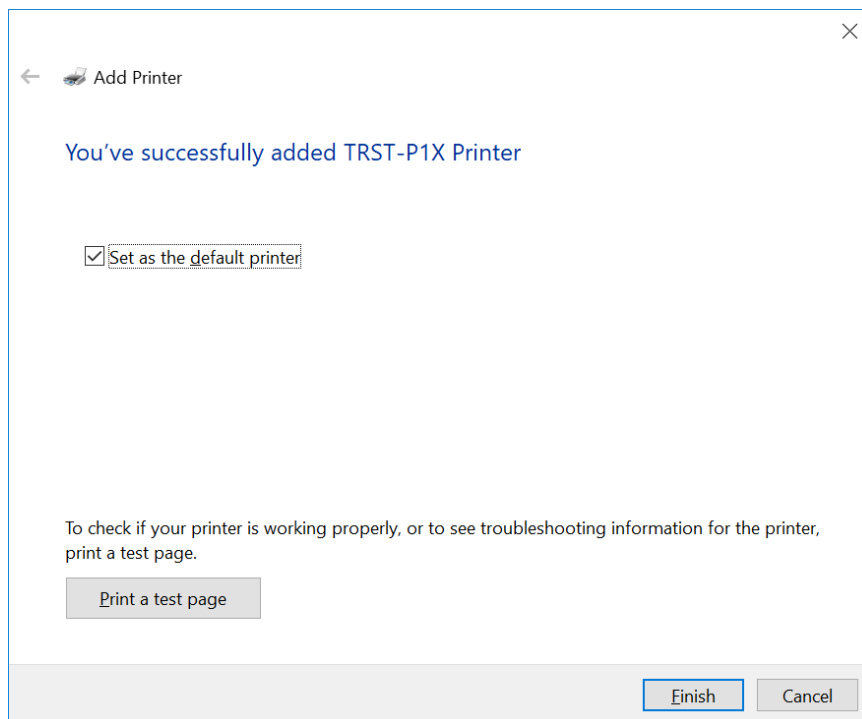
13) Below is TCP/IP Port creation
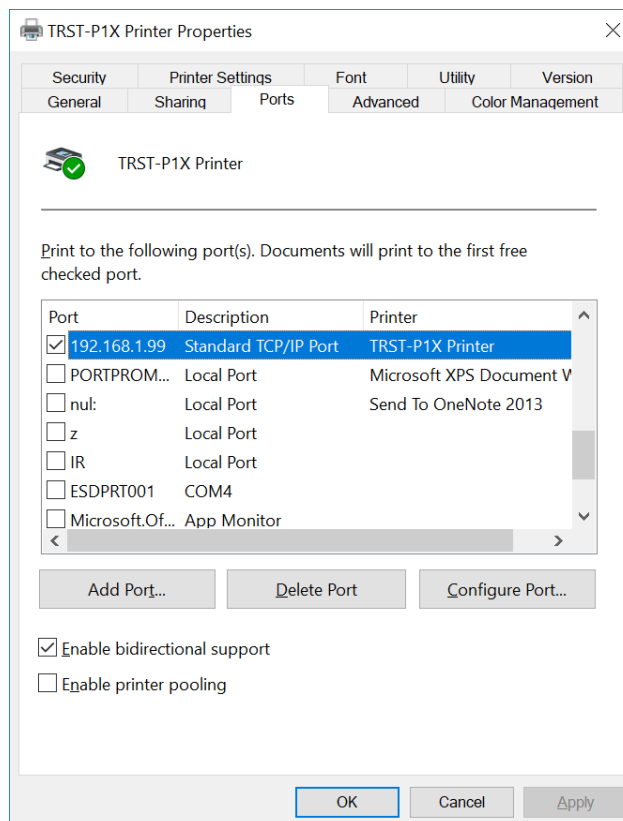
2.3 Change Printer interface from "Ports" Tab

After installation using installer application, you can change the printer interface from USB interface to RS232 / LAN interface

Open Printer Properties then select "Ports" tab
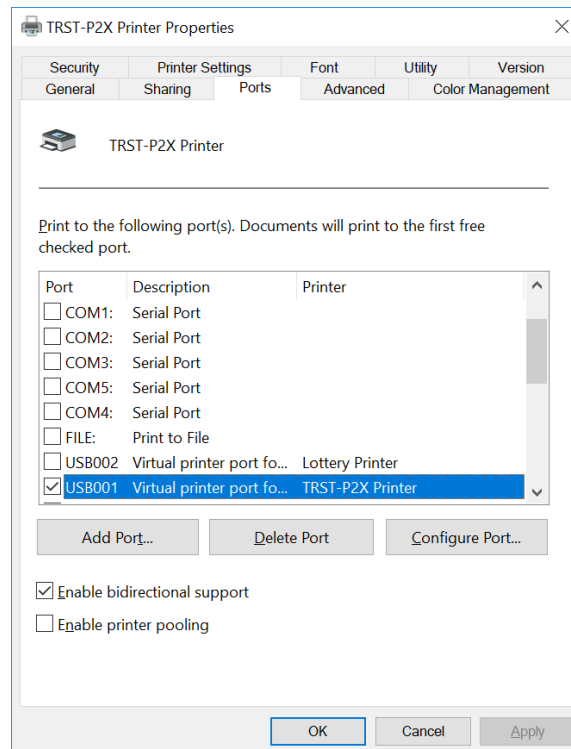
USB to RS232 Interface

Change USB connection to RS232

Select COM Port that connected with the printer. Then Click "Configure Port"
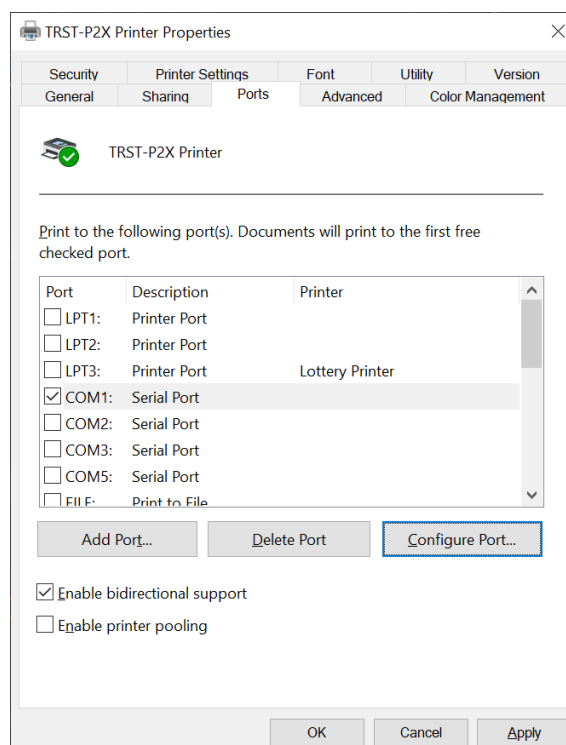
Please select the serial communication parameter based on Printer RS232 Interface Settings on printing configuration. Then click OK Button
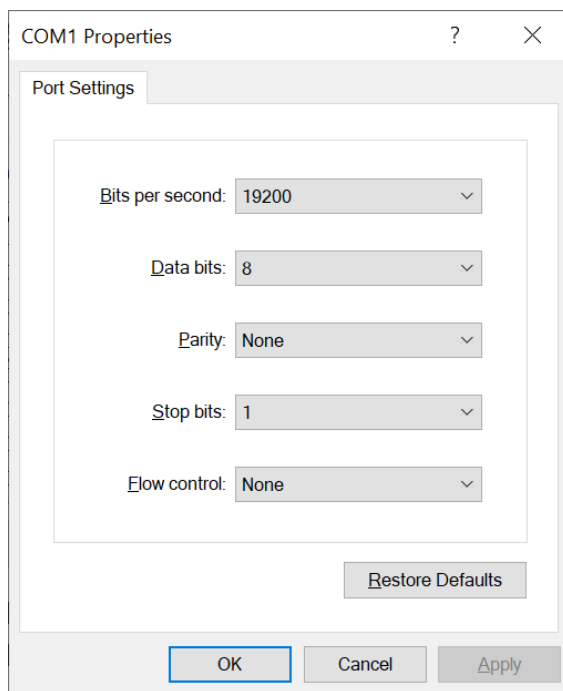
After Port is configured properly then click "Apply" Button
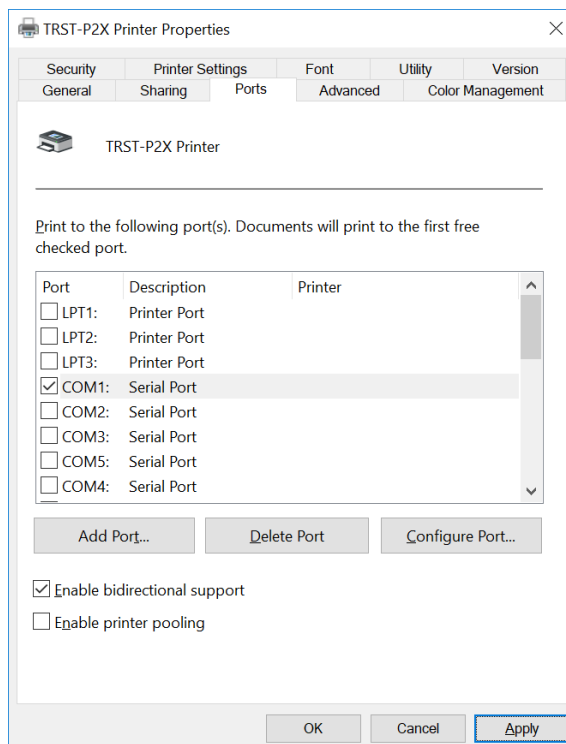
USB to LAN Interface

Change USB connection to LAN

Select LAN Port that connected with the printer. Then Click Apply
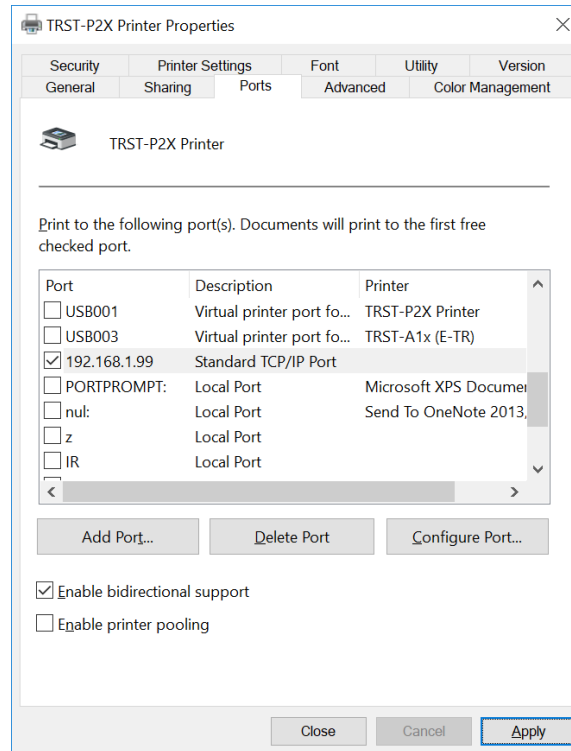
Note:

If printer is in the state "Use Printer Offline", attempting to change the port of the device will successfully change the port, but the printer will continue to be in the offline state.

This case is happen on specific condition as below :

Change port from USB to another interface (RS232/LAN) when USB is disconnect (offline) before open printer properties

In this case need to manually disable the "Use Printer Offline" setting before open Printer properties or after change the port

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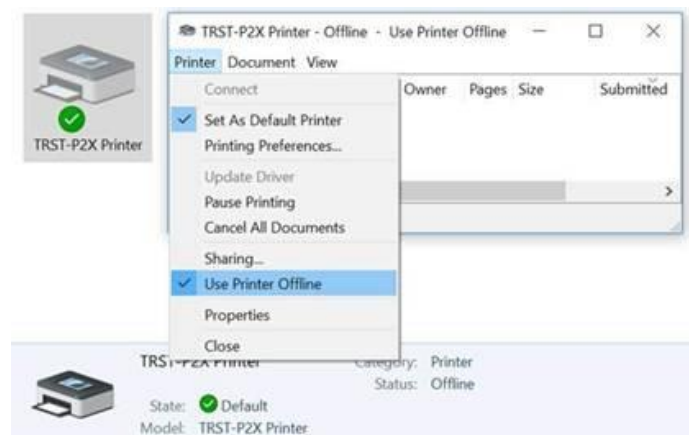
3. How to uninstall the Printer Driver

3.1 Uninstall by using Programs and Features

1) Open "Program and Features" window (Control Panel -> Programs -> Programs and Features)
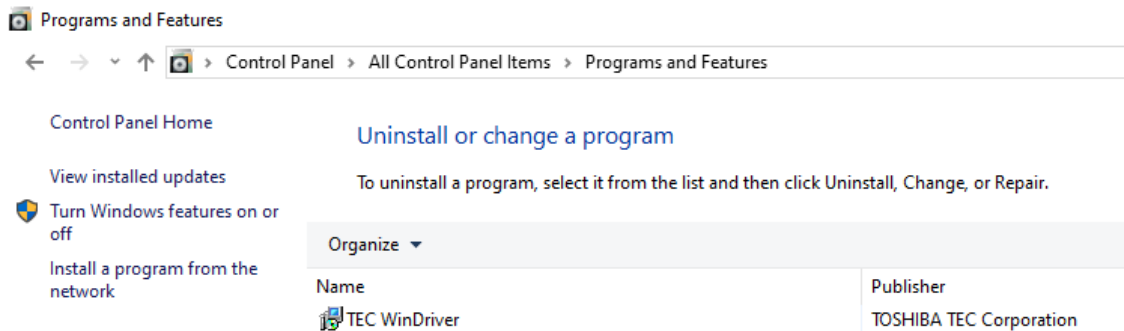
2) Right Click the TEC WinDriver program on "Program and Features" then select "Uninstall"
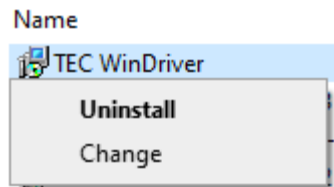
3) Remove application confirmation will appear then click [Yes]
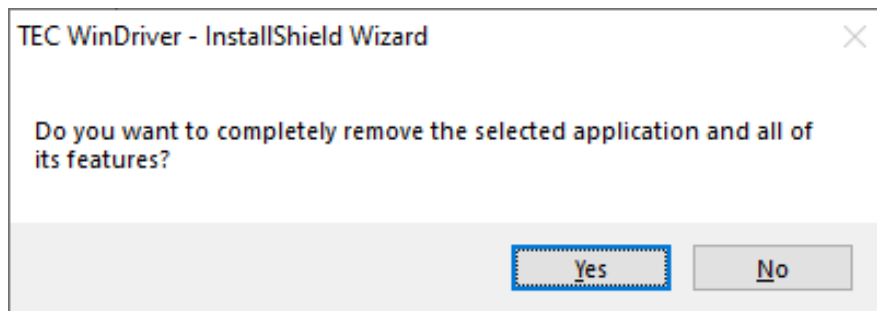
4) Driver Uninstallation Process. Please wait until uninstall finish
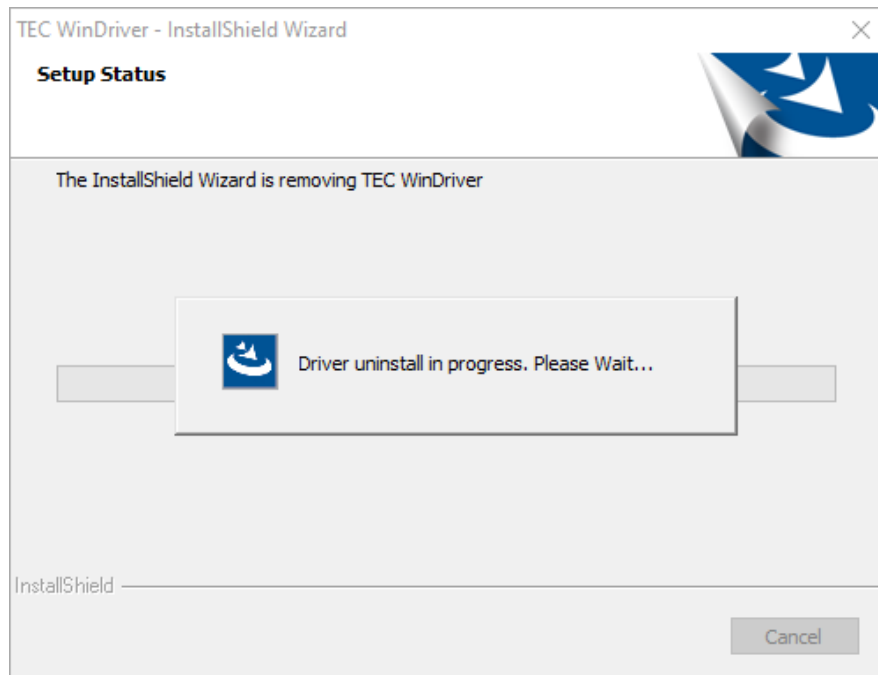
5) Uninstall complete. Click "Finish"
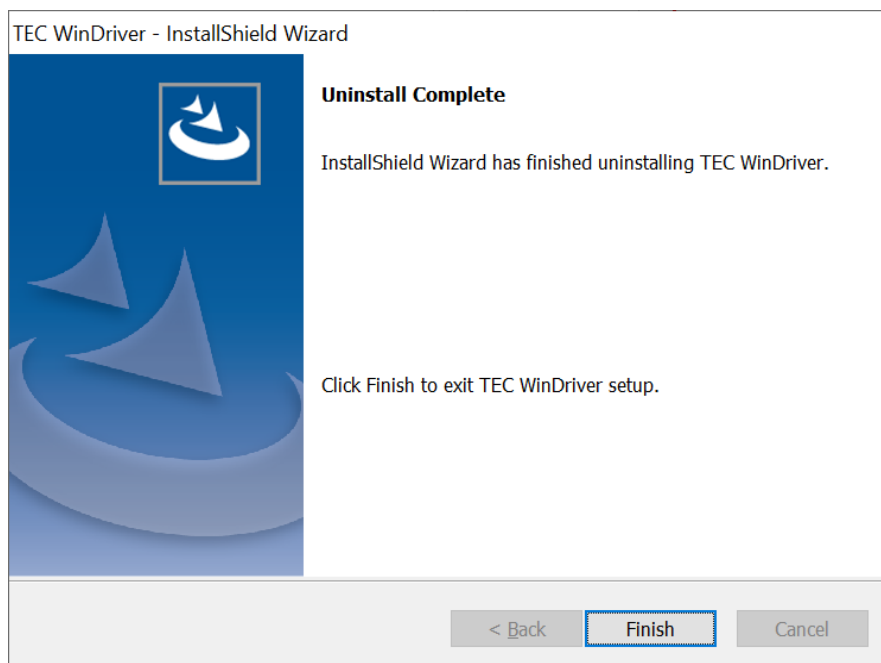
3.2 Manual uninstall by remove device and driver on Print Server Properties

Note: *Ensure Administrator rights to properly uninstall printer driver.*

1) Remove device (make sure there are no ongoing print jobs).
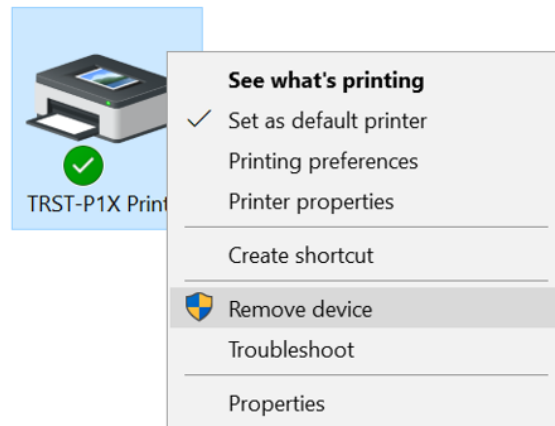
2) Click on any other printer, to see the "Printer server properties".
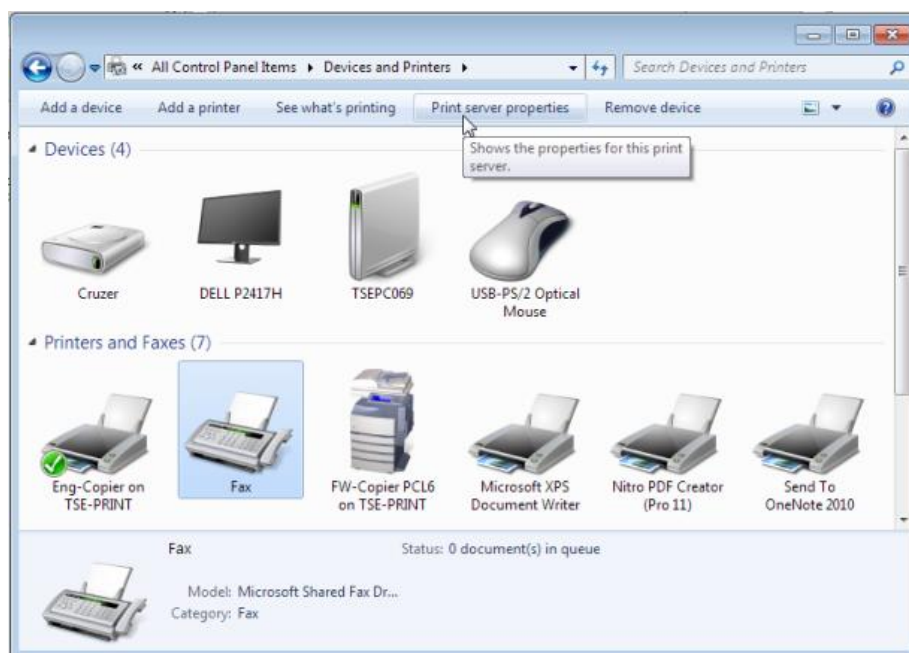
3) In Printer Server Properties, select "change driver settings"
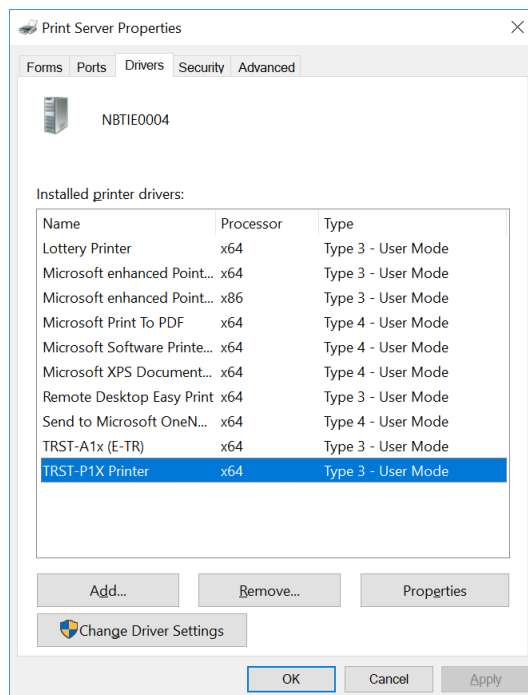
4) Select the driver to be uninstalled and click Remove
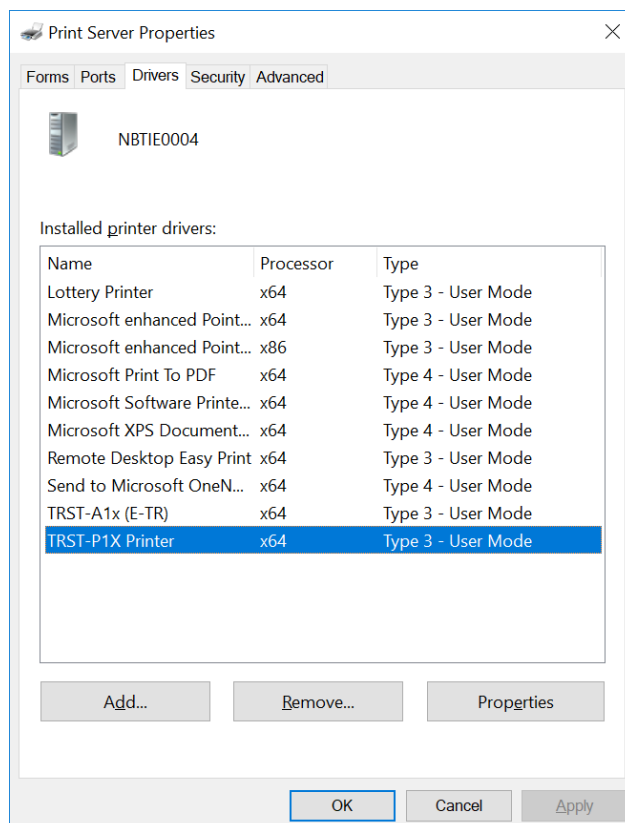
5) Select Remove driver and driver package. Click [OK]
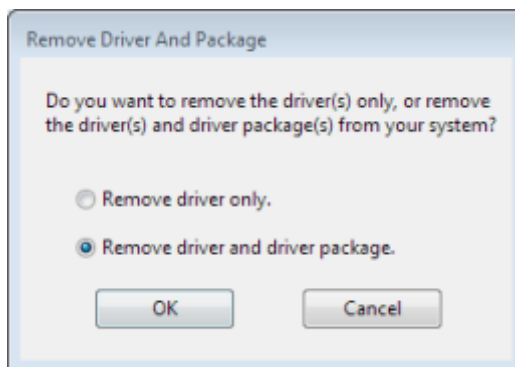
6) Click [Yes]
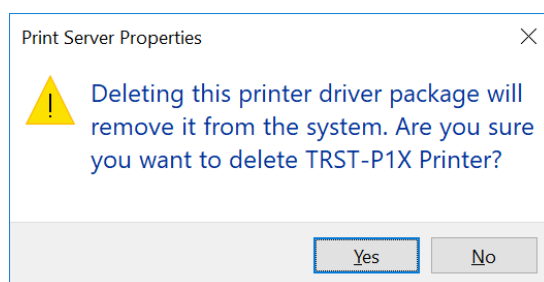
7) Click [Delete]
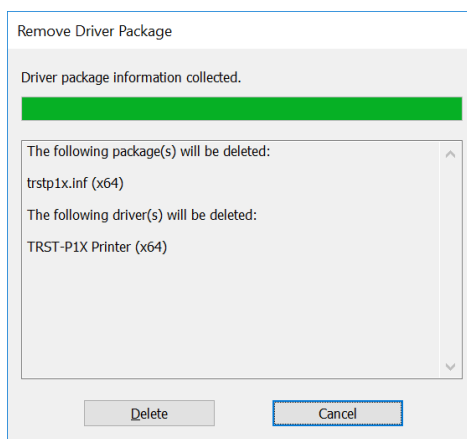
8) Click [Ok]
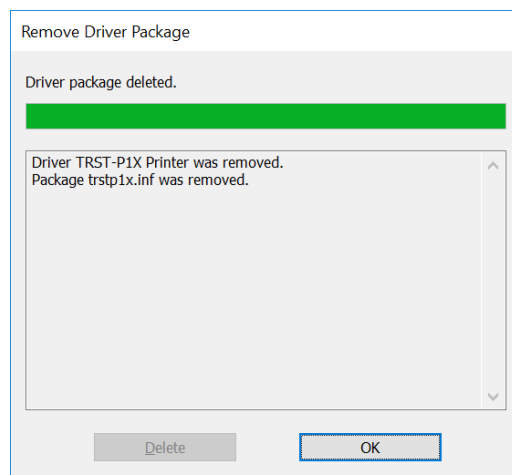
Note:

*If in case the driver cannot be removed, you will see this message:
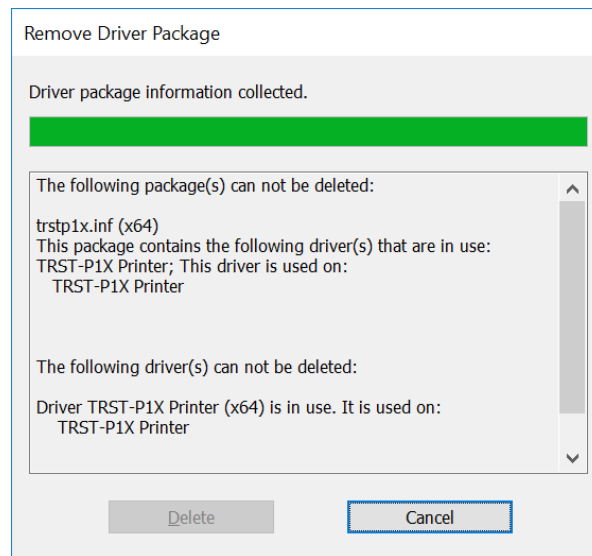
In this case you need to take the following additional steps:

a. Open the Command Prompt and enter "net stop spooler".
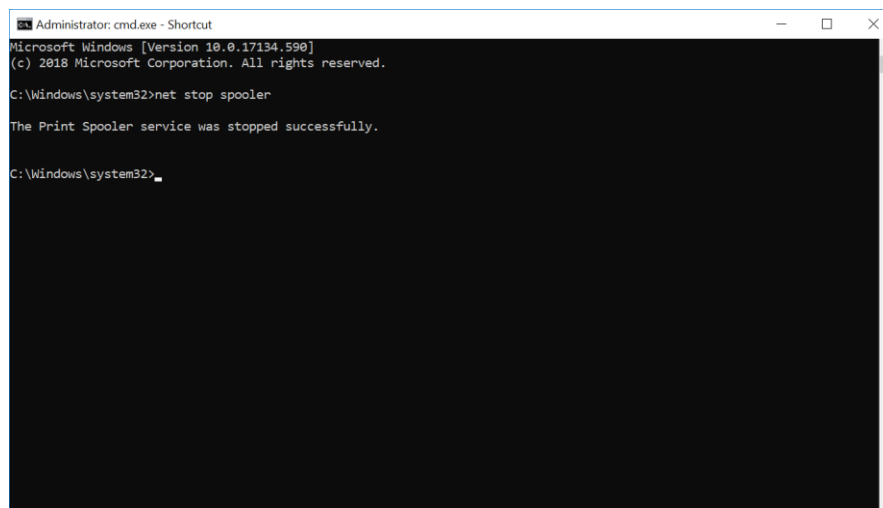
b. Go to C:\Windows\System32 and look for TRSTP1XLMN.dll (in case of TRST-P1X / HSP-150) or TRSTP2XLMN (For TRST-P2X / HSP-100). This is the file you will need to delete.
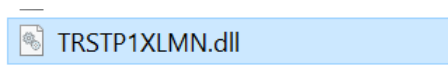
Proceed to delete above file

c. Then next enter "net start spooler".
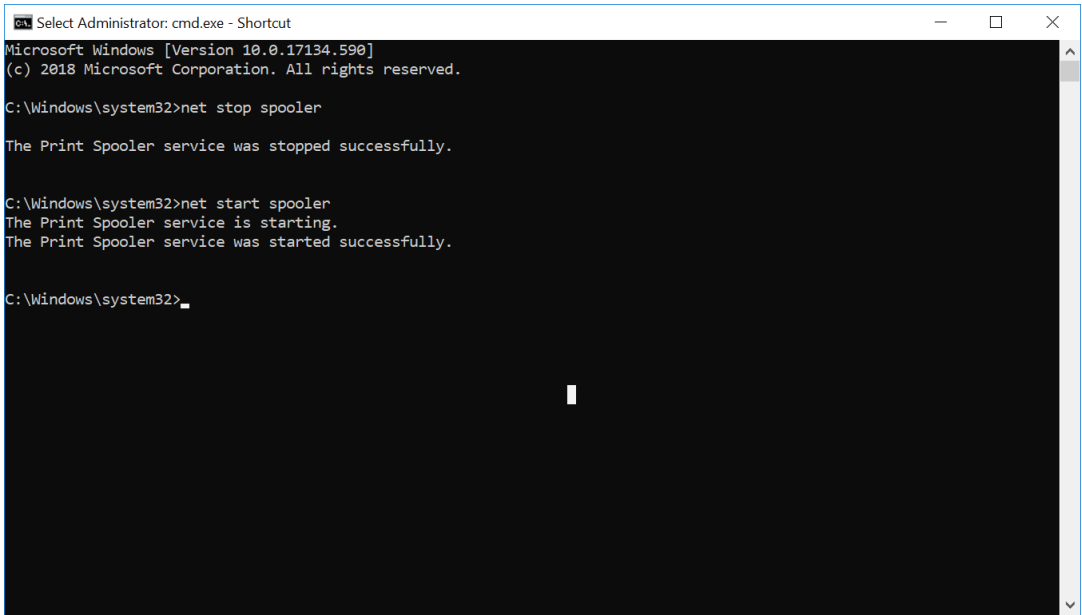
d. Then go back to Printer Server Properties (step 3) and try to remove again.

4. Printer Properties

Printer Properties could be accessed from the "Devices and Printers".

Right-Click the printer driver name and select Printer properties button
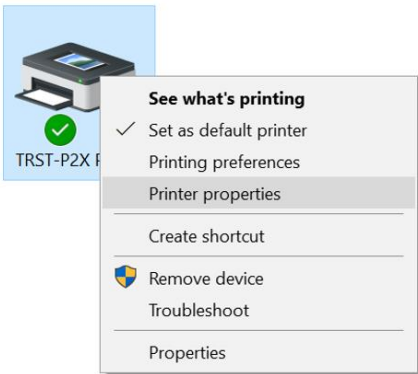
Below table show the property sheets.

Sheet	Provider	Note
General	Windows	
Sharing		
Ports		
Advanced		
Color Management		
Security		
Printer Settings	Vendor	Created by Printer Driver's Vendor
Font		
Utility		
Version		

4.1 Printer Settings
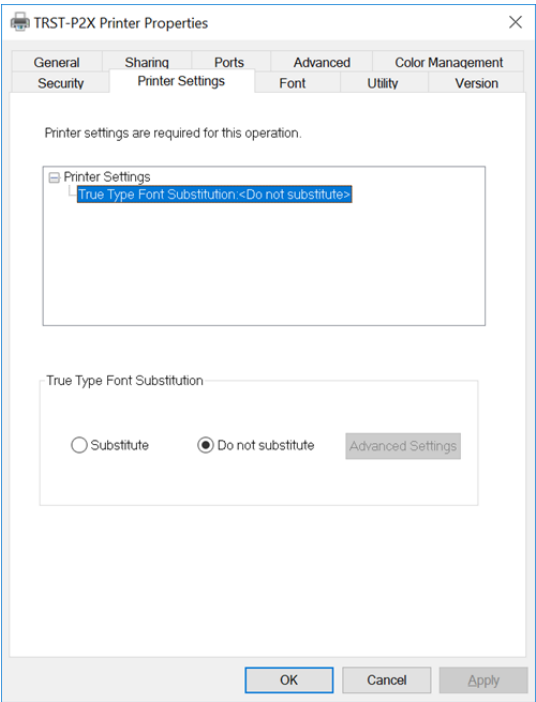
True Type Font Substitution

Select **Substitute** option to enable the font substitution feature. Click Advanced Settings to select font type to substitute
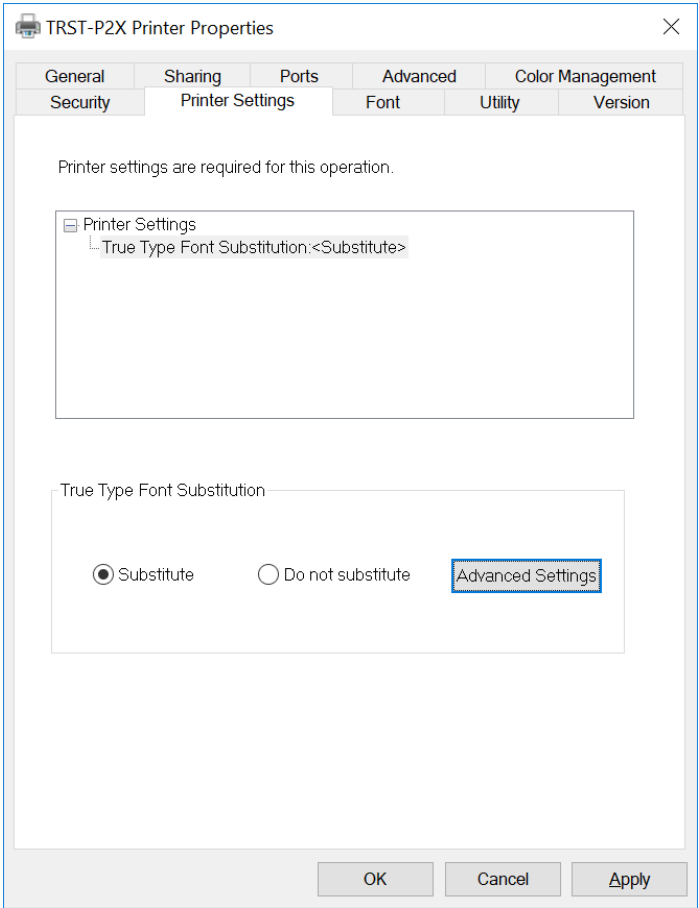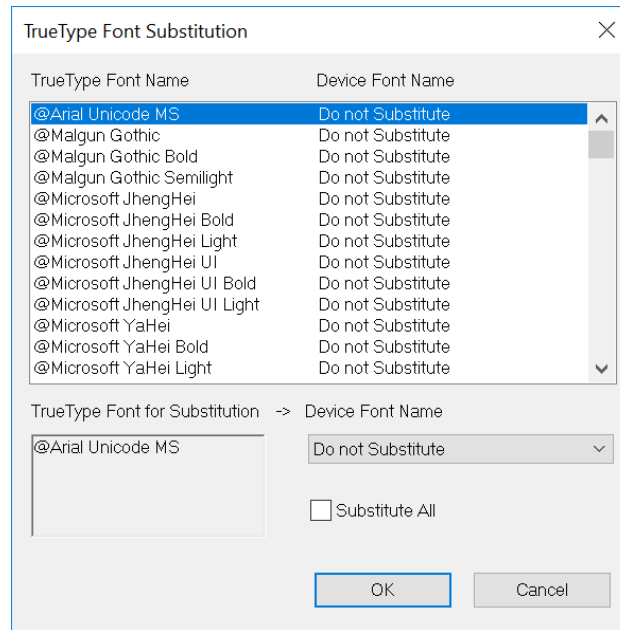
Below is device Font Name list for substitution

- FontA
- FontB
- Control
- controlA
- Barcode(1-8)
- 2D-Code(1-8)

Click OK and the true type font name will substituted with selected device font name

Note:

In case "Substitute All" is checked, the selected "Device Font Name" should be applied to all the True Type Font listed on this dialog (=True Type Font Substitution) and then, all the True Type Font listed should be disabled(=cannot be modified)

FontA & FontB

In case FontA & FontB is selected

There are 2 command sent to printer:

1. Character font

FontA & FontB is character font. Below command will sent when select FontA or FontB

1.7.9   Select character font

ASCII: ESC M n
Hexadecimal: 1B 4D n
Decimal: 27 77 n
Value of *n*:   0, 48: Font A (Standard pitch font)
                    1, 49: Font B (Compress pitch font)

2. Character Size

1.7.14   Select character size

ASCII:	GS ! n
Hexadecimal:	1D 21 n
Decimal:	29 33 n
Value of *n*:	Bit 0 to 3 = Height magnification (0 – 7)
	Bit 4 to 7 = Width magnification (0 – 7)
Range of *n*:	0 ≤ n ≤ 7, 16 ≤ n ≤ 23, 32 ≤ n ≤ 39, 48 ≤ n ≤ 55, 64 ≤ n ≤ 71, 80 ≤ n ≤ 87, 96 ≤ n ≤ 103,
	112 ≤ n ≤ 119
Default:	0

The character size that sent to printer is automatically assign based on below criteria:

1. FontBaseHeight   <= FontHeight < (FontBaseHeight*2)   → Font substitute is FontA11 / FontB11

2. (FontBaseHeight*2) <= (FontHeight < FontBaseHeight*4)   → Font substitute is FontA22 / FontB22

3. (FontBaseHeight*4) <= (FontHeight < FontBaseHeight*8)   → Font substitute is FontA44 / FontB44

4. (FontBaseHeight*8) <= FontHeight   → Font substitute is FontA88 / FontB88

Note:

1. **FontBaseHeight : The value is based on Font Size selection on "Font Tab" section (in dots)**

    Font Size1 → FontBaseHeight = 27

    Font Size2 → FontBaseHeight = 34

2. **FontHeight : True Type Font Height (in dots)**

Resolution	180dpi model: 180.0 dpi x 180.0 dpi (7 dots/mm)
	203dpi model: 203.2 dpi x 203.2 dpi (8 dots/mm)

3. Font substitute is depend on character font selection (FontA / FontB)

Example:

1. Using AMY Printer, sent document with Arial Font & Size is 11 Points

    Font Size is Font Size1 and Font Substitute setting is FontA

    FontBaseHeight = 27 (Font Size1 Parameter)

    FontHeight = ±4.4mm = 4.4 * 8 = 35 dots (**Note** : 203dpi model -> 8dots/mm)

    Check Criteria :

    1. FontBaseHeight <= FontHeight < (FontBaseHeight*2)   → Font substitute is FontA11 / FontB11

    2. (FontBaseHeight*2) <= (FontHeight < FontBaseHeight*4)   → Font substitute is FontA22 / FontB22

    3. (FontBaseHeight*4) <= (FontHeight < FontBaseHeight*8)   → Font substitute is FontA44 / FontB44

    4. (FontBaseHeight*8) <= FontHeight   → Font substitute is FontA88 / FontB88

Criteria to use is **No 1**

FontBaseHeight <= FontHeight < (FontBaseHeight*2)

27   <=   35   <   54

Font Substitute setting is FontA so the **Character size** is use **FontA11**

2. Using CLARA Printer, sent document with Calibri Font & Size is 20 Points

   Font Size is Font Size1 and Font Substitute setting is FontB

   FontBaseHeight = 27 (Font Size1 Parameter)

   FontHeight = $\pm$8.7mm = 8.7 * 7 = 61 dots   (**Note** : 180dpi model -> 7dots/mm)

   Check Criteria :

   1. FontBaseHeight <= FontHeight < (FontBaseHeight*2)   → Font substitute is FontA11 / FontB11

   2. (FontBaseHeight*2) <= (FontHeight < FontBaseHeight*4)   → Font substitute is FontA22 / FontB22

   3. (FontBaseHeight*4) <= (FontHeight < FontBaseHeight*8)   → Font substitute is FontA44 / FontB44

   4. (FontBaseHeight*8) <= FontHeight   → Font substitute is FontA88 / FontB88

   Criteria to use is **No 2**

   (FontBaseHeight*2) <= FontHeight < (FontBaseHeight*4)

   54   <= 61   <   108

   Font Substitute setting is FontB so the **Character size** is use **FontB22**

NOTE:

FontA11 / FontB11 = Character width & height size is 1 Time (normal)   **-> Command to sent : 1D 21 00**

FontA22 / FontB22 = Character width & height size is 2 Times   **-> Command to sent : 1D 21 11**

FontA44 / FontB44 = Character width & height size is 4 Times   **-> Command to sent : 1D 21 33**

FontA88 / FontB88 = Character width & height size is 8 Times   **-> Command to sent : 1D 21 77**

Control Font

Driver convert character data to control code based on table below

Character code	Explanation	Sending command (Hex decimal)
5	Send HT	09
6	Send LF	0A
7	Send CR	0D
a	Drawer open 50ms	1B 70 00 19 FF
b	Drawer open 100ms	1B 70 00 32 FF
c	Drawer open 150ms	1B 70 00 4B FF
d	Drawer open 200ms	1B 70 00 64 FF
e	Drawer open 250ms	1B 70 00 7D FF
g	Non feed paper + Partial cut	1D 56 01
w	Positioning adjustment Left	1B 61 00
x	Positioning adjustment Center	1B 61 01
y	Positioning adjustment Right	1B 61 02
A	Drawer open 50ms	1B 70 00 19 FF
B	Drawer open 100ms	1B 70 00 32 FF
C	Drawer open 150ms	1B 70 00 4B FF
D	Drawer open 200ms	1B 70 00 64 FF
E	Drawer open 250ms	1B 70 00 7D FF
P	Paper feeding + Partial cut	1D 56 42 00

Example:

1. Set Font Substitution setting for Arial to Control font
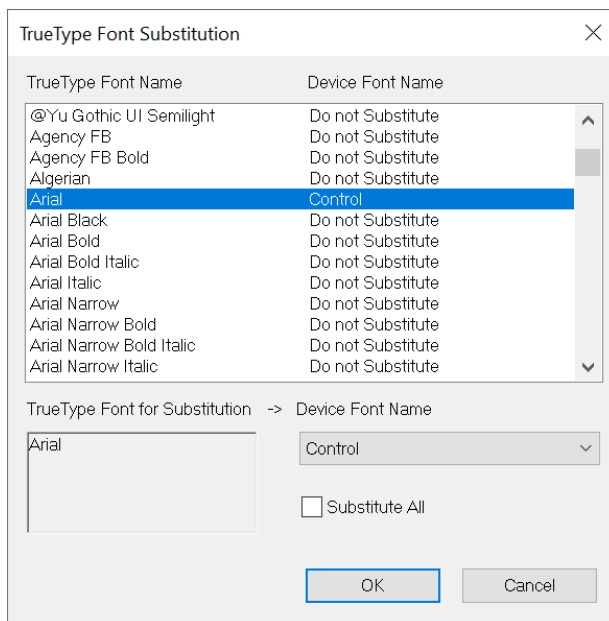
- Open Microsoft Word document then set the font to Arial

- Connect cash drawer to the printer

- Type "g" then perform printing

Result : Cash Drawer will open with pulse on time 50ms

ControlA Font

Driver convert character data to control code based on "Edit ControlA Font" Setting on "Utility" Tab then send command to the printer. (Please see Edit ControlA Section for the example to use ControlA Font)

4.2 Font

Select the printer font and send the character data to the printer. Below are printer fonts that can be selected by an application. The sizes of those fonts are fixed.

Font1				Font2			
Font Name	Point	Font Name	Point	Font Name	Point	Font Name	Point
FontA11	8.5	FontB11	8.5	FontA11	9.9	FontB11	9.9
FontA12	17.0	FontB12	17.0	FontA12	19.9	FontB12	19.9
FontA21	8.5	FontB21	8.5	FontA21	9.9	FontB21	9.9
FontA22	17.0	FontB22	17.0	FontA22	19.9	FontB22	19.9
FontA24	34.0	FontB24	34.0	FontA24	39.7	FontB24	39.7
FontA42	17.0	FontB42	17.0	FontA42	19.9	FontB42	19.9
FontA44	34.0	FontB44	34.0	FontA44	39.7	FontB44	39.7
FontA48	68.1	FontB48	68.1	FontA48	79.4	FontB48	79.4
FontA84	34.0	FontB84	34.0	FontA84	39.7	FontB84	39.7
FontA88	68.1	FontB88	68.1	FontA88	79.4	FontB88	79.4
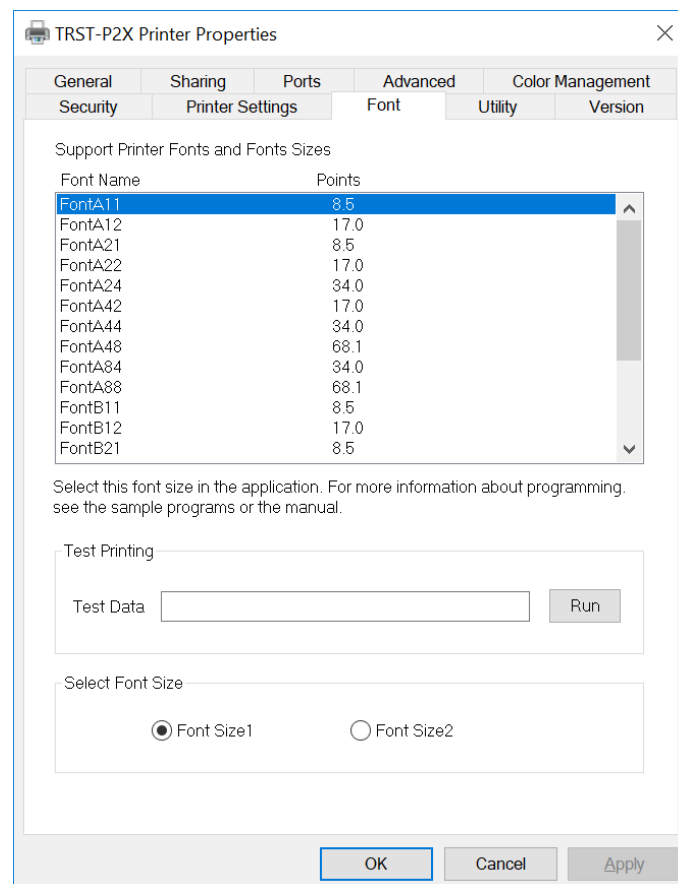
1. **Test Data** : Any string can be input in this EditBox. (Example: ABCD1234)
2. **Run** : On clicking this button, string in "Test Data" is sent to the printer by generating printing job
3. **Select Font Size** : Select Font Size1 / Font Size2 used on printer

4.3 Utility
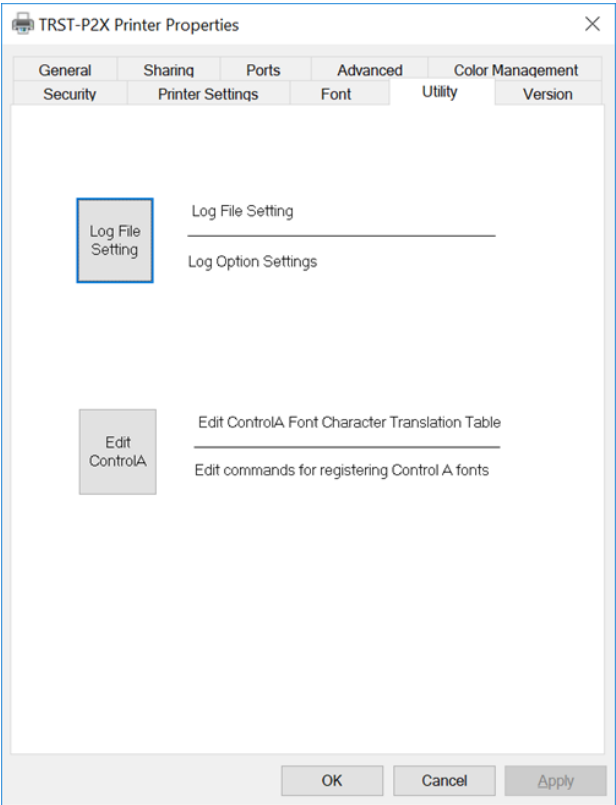
4.3.1 Log File Setting
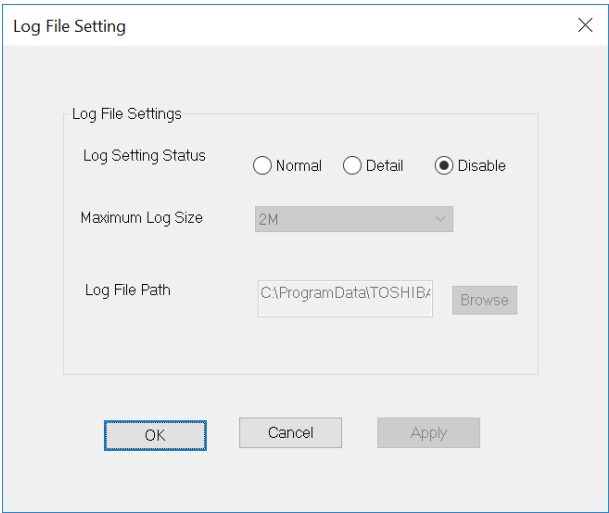
This dialog is to configure Log File Setting

1. **Log Setting Status**

   Default value is Disable. To enable the log please select Normal / Detail.

   If selected setting is Normal / Detail printer driver will save log into file.

2. Maximum Log Size

Below are default value

Normal : 2M

Detail : 10M

Each file size of on the log is 1M Bytes and the file count is based on Maximum Log Size
Setting.

3. Log File Path

Default location for the log file

TRST-P1X / HSP-150 = "C:\ProgramData\TOSHIBA\TRSTP1X\logs"

TRST-P2X / HSP-100 = "C:\ProgramData\TOSHIBA\TRSTP2X\logs"

Click **Browse** then will show dialog to select the directory where log file is saved.

Log Setting Status	Data to be logged
Normal / Detail	Entry and Return, Receiving data and Error information when error happen
Normal	Sending data except printing data to printer
Detail	Sending data with Printing data

4.3.2 Edit ControlA

ControlA font is a font where specific command is set to control characters selected by the
user. When the control character of the controlA font is specified in the print data and printed,
the specific command is executed.

Driver convert character data to control code based on "Edit ControlA Font" Table then send
command to printer.
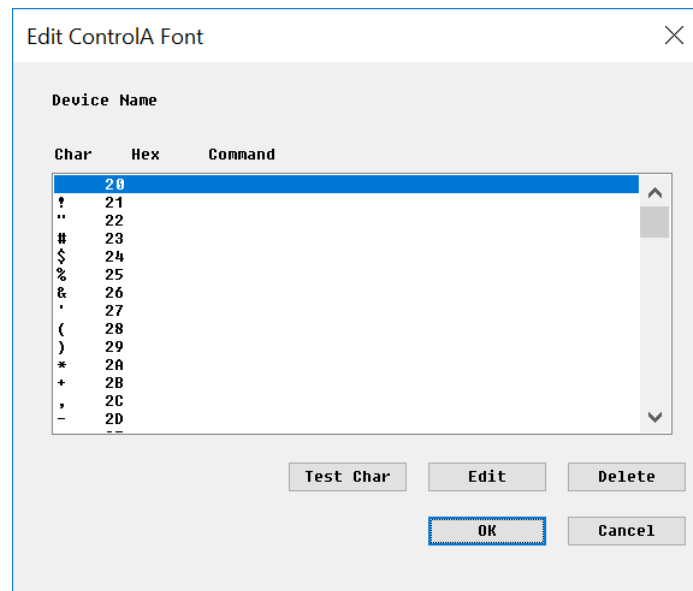
Test Char Button

To test the Command input for selected character

(Please see the example to use on Edit button section below)

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Edit Button

Show the dialog to edit Control A Font.
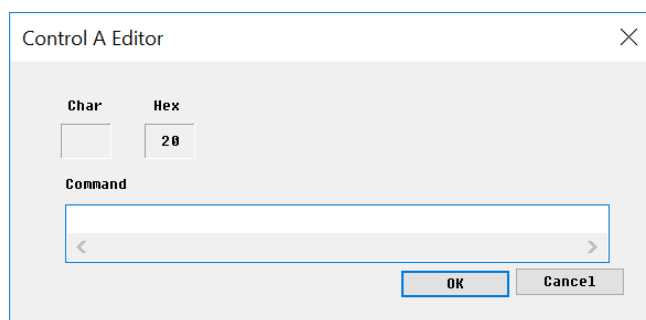
The command input will replace the selected character that is shown on "Char" section

Example:
1. Select cursor to 1 Click Edit Button
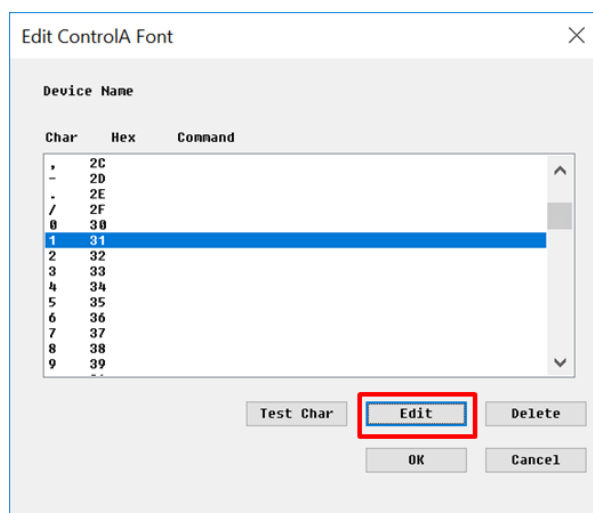
2. Input Command then Click OK Button (Example : 1F 74)

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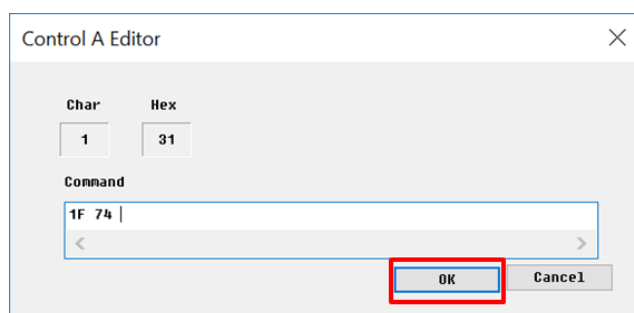
3. Click Test Char Button
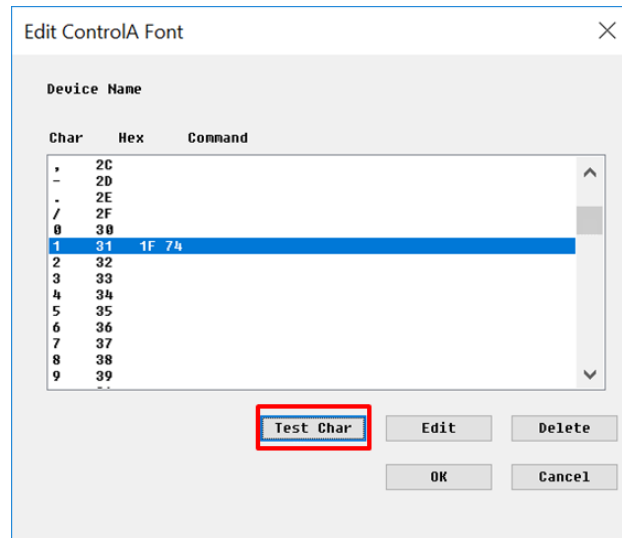
Result: Print Configuration Printing

Delete Button

Delete the command which will replace the selected character

Note:

How to use the Edit ControlA in the document printing

1. Set command "1F 74" in Char "1" on Edit ControlA Font Setting

2. Open Printer properties → Printer Settings

3. Select True Type Font Substitution

4. Select Substitute option and click Advanced Settings

5. Select True Type Font name and select Device Font Name to controlA

Example : Select Arial font
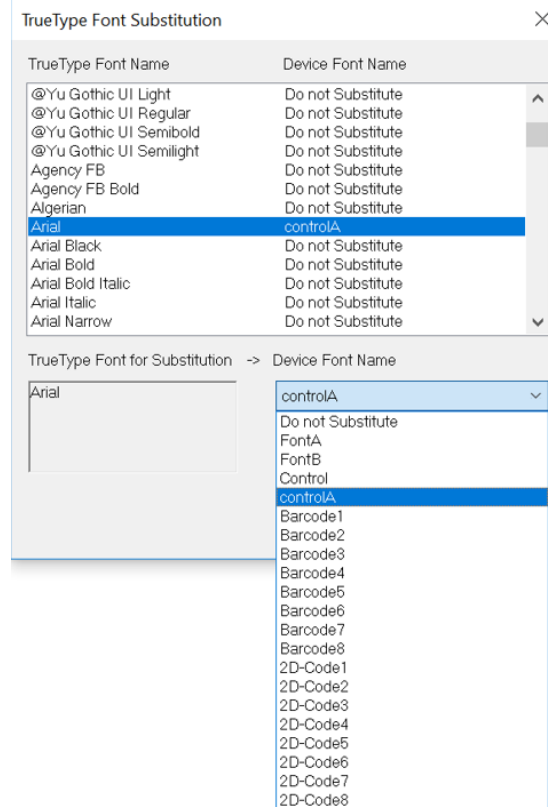
6. Click Apply & OK button

7. Open Microsoft Word document

8. Set font type to "Arial"

9. Type "1" then print dcument

10. Result is printing configuration page

4.4 Version

Show the version of printer driver

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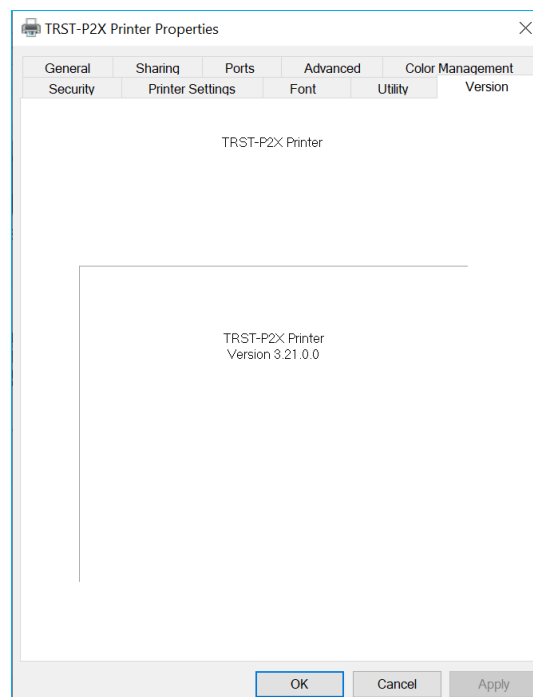
5. Printing Preferences

5.1 Main
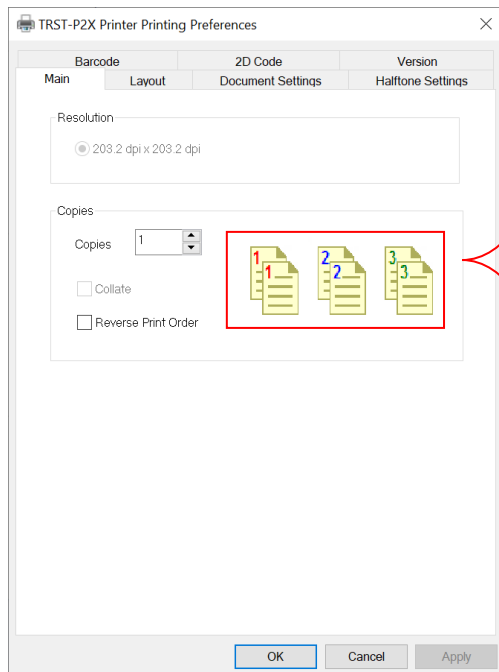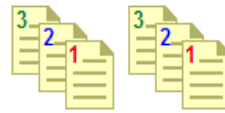
Copies

Input how many copy of every page will printed

Collate

When printing more than one copy of a multi-page document, the copies will print all pages of each

copy before printing the second copy

Reverse Print Order

Print order will start from last page

5.2 Layout
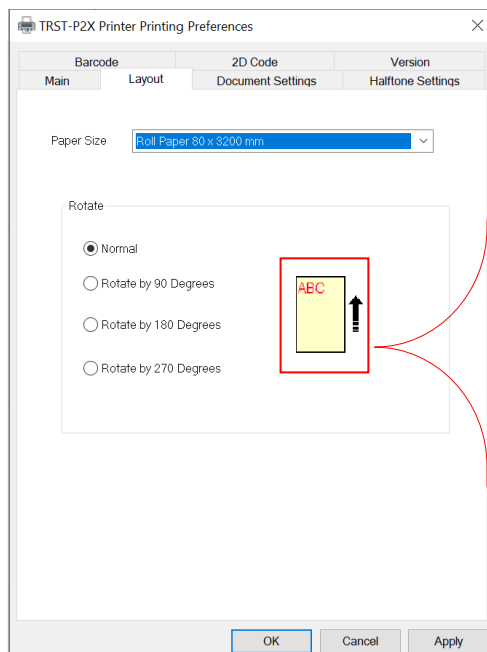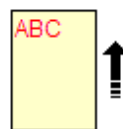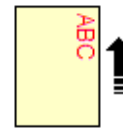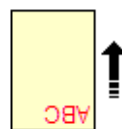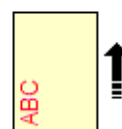
Paper Size

Select the specified paper size ([58mm x 297mm] or [80mm x 297mm]) based on paper width

Selection:

- Roll Paper 58 x 297 mm
- Roll Paper 80 x 297 mm
- User Defined Paper Size

User Defined Paper Size

Custom the paper size by user

Example:

1. Call User Defined Paper size
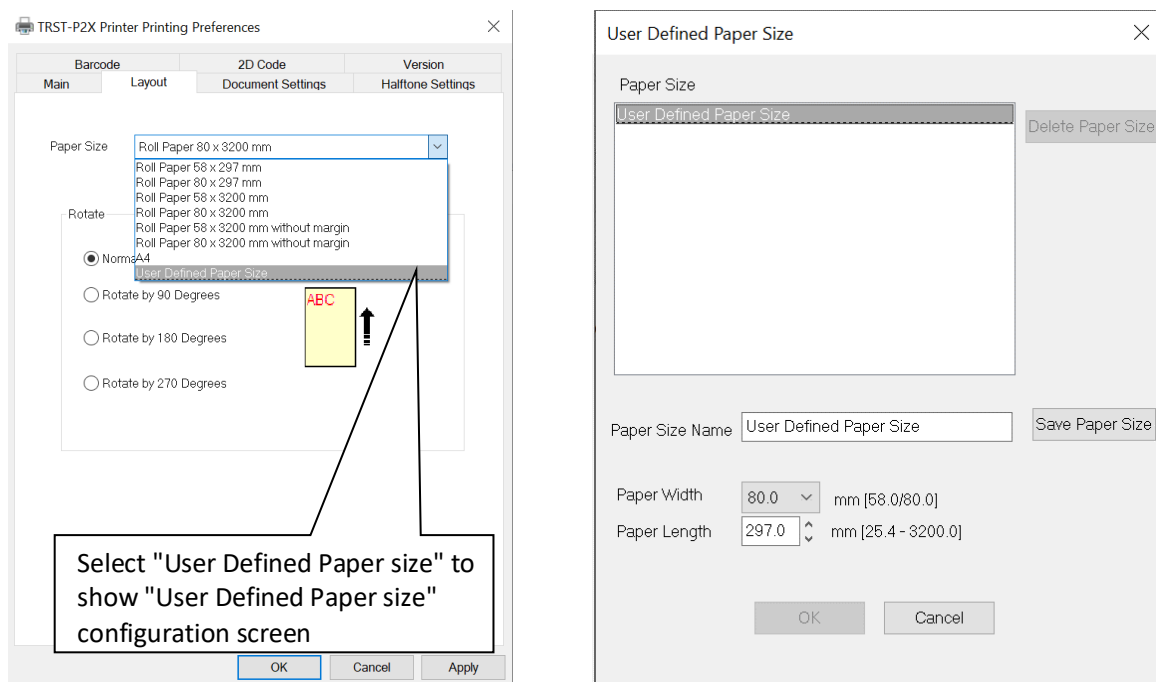
2. Create new entry for "User defined Paper size"
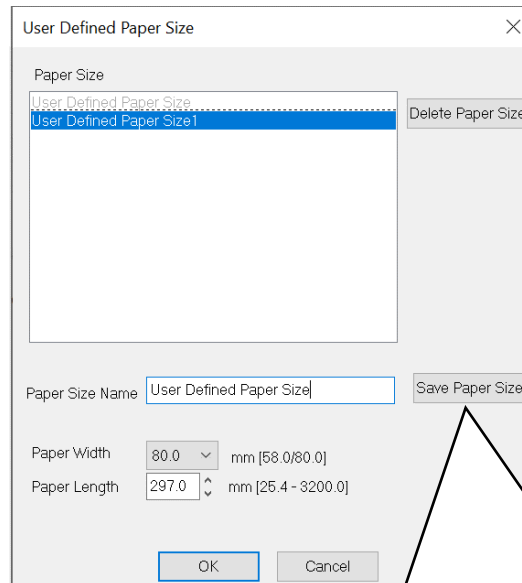
Enter new "Paper Size Name" and click [Save Paper Size] button. And then, new entry for "User defined Paper size" is created and shown with the specified name.
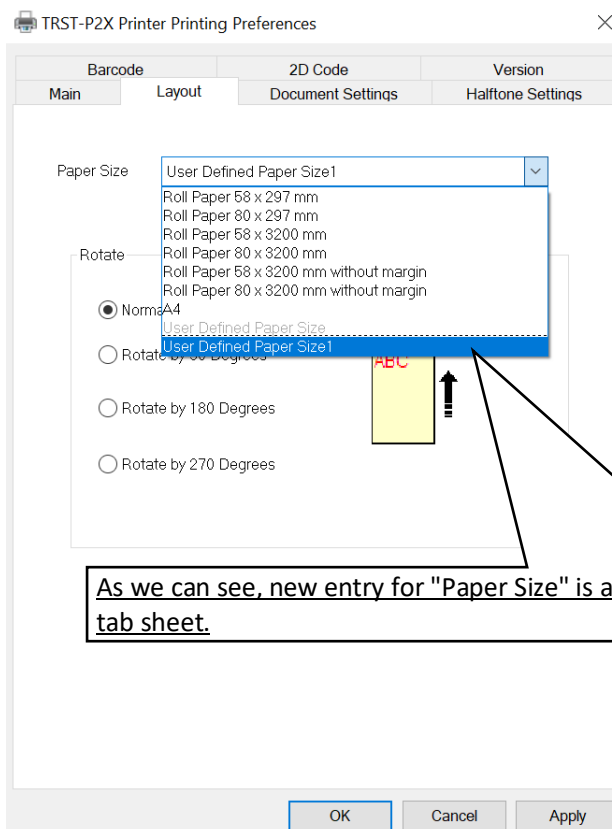
As we can see, new entry for "Paper Size" is available on "Layout" tab sheet.

3. Delete Paper Size

To delete the selected "User Defined Paper Size"

5.3 Document Settings
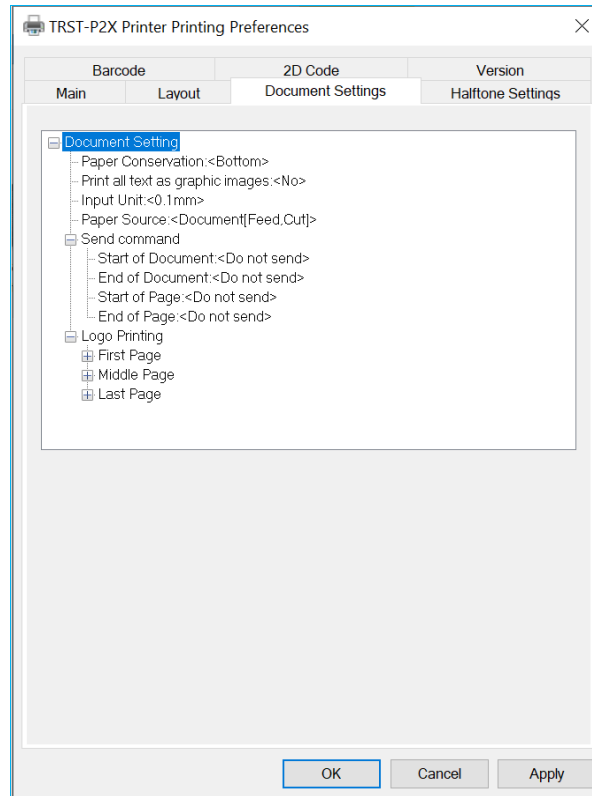
Paper Conservation

Reduce paper usage by remove the empty area (Top / Bottom / Both area)

Print all text as graphic images

The printing data is printed as an image when "Yes" is selected

Input Unit

Set the input unit measurement parameter

Paper Source

Document[Feed, Cut]	Feed and cut on last page of a job
Document[Feed, No Cut]	Feed on last page of a job
Document[No Feed, Cut]	Cut on last page of a job
Document[No Feed, No Cut]	Neither Cut nor Feed are executed
Page[Feed, Cut]	Feed and cut between pages
Page[Feed, No Cut]	Feed between pages
Page[No Feed, Cut]	Cut between pages

When Custom is selected then will show dialog as below
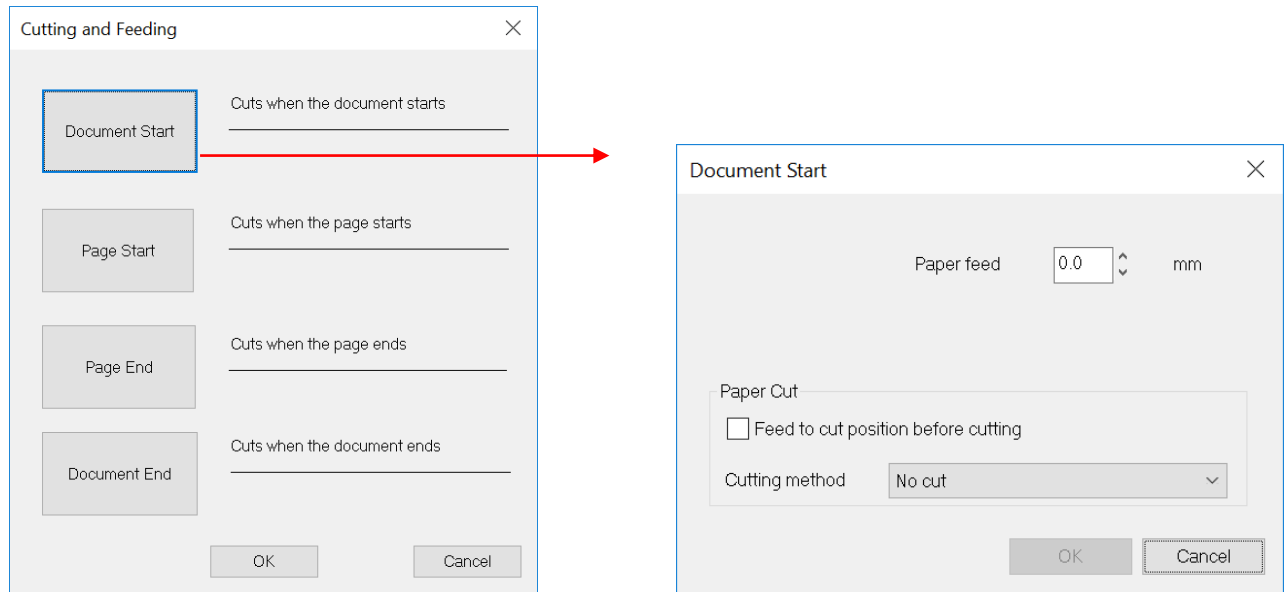
Paper Feed : amount of Feed can be set between from 0mm to 100mm

Feed to cut position before cutting : If checked, feed with "Paper Feed" setting

Cutting method : Cut / No Cut

Send Command

Send Command of Start of Document, End of Document, Start of Page, and each End of Page

Example:

1. Input Start of Document : 1B 07 then click OK
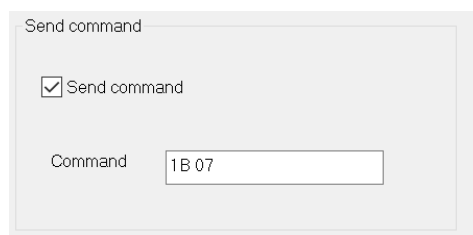
2. Do Print Test Page
3. Result is Beep Sound before print the test page

Logo Printing

The Logo print setting can be set to Top/Bottom of Last Page, Top/Bottom of First Page and Top/Bottom of Middle Page. Logo Position also can be set on Left, Center or Right.

The logo has to be downloaded before using this setting.
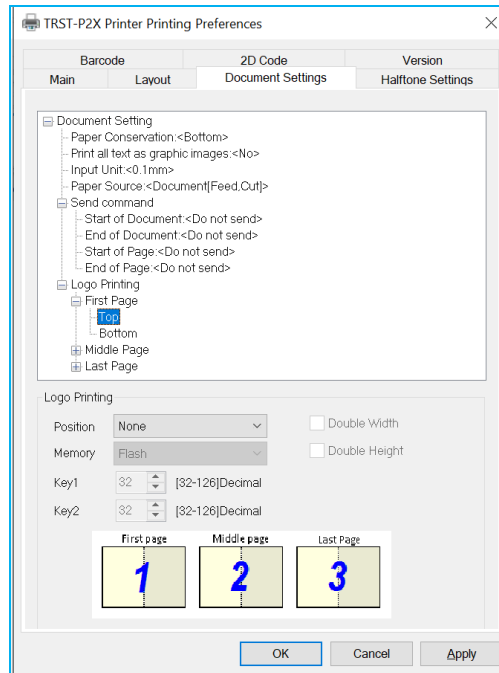
Position : Logo image is printed on Specified page/position (Left, Center or Right)

Key1 & Key 2 : It prints the user-defined logo by the key codes (kc1 and kc2) in flash memory

Double Width : Enlarge the logo image horizontally

Double Height : Enlarge the logo image vertically

5.4 Halftone Settings

Halftone is an image comprised of discrete dots rather than continuous tones.
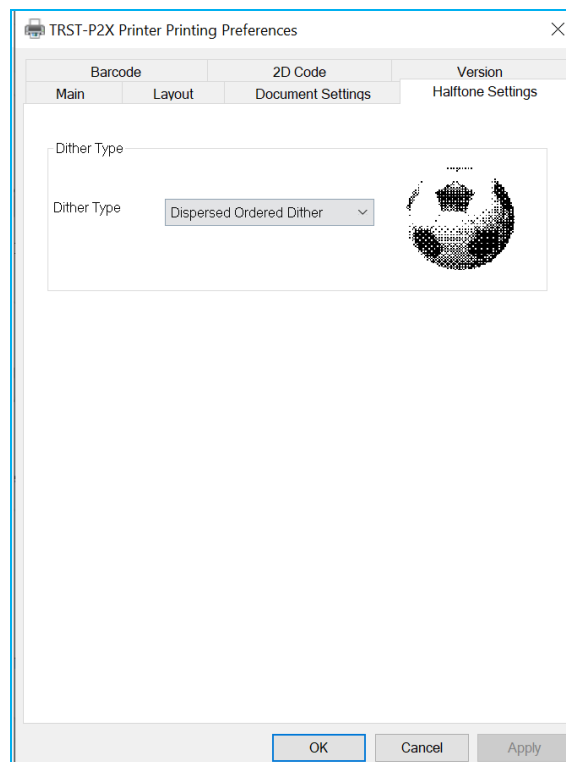
Dither Type setting to rendering the image:

Dither Type	Sample Image
Dispersed Ordered Dither	
Clustered Ordered Dither	
Error Diffusion	
Threshold	

5.5 Barcode

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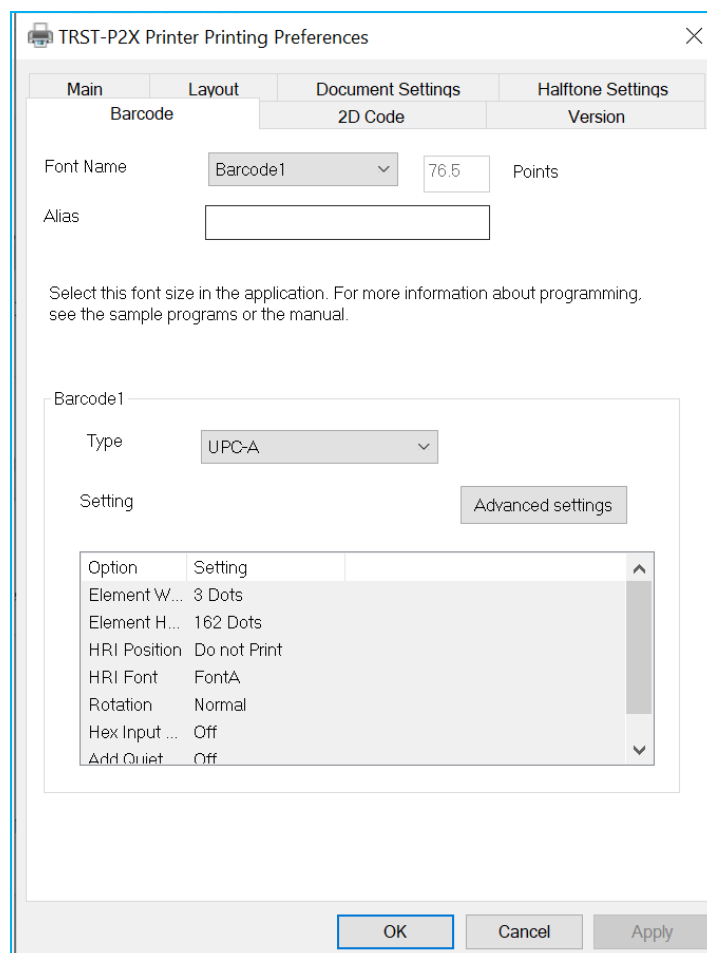
Font Name : There is 8 Barcode Font Name selection available

Type:

Barcode1: UPC-A

Barcode2: UPC-E

Barcode3: JAN13

Barcode4: Code39

Barcode5: ITF

Barcode6: Codabar

Barcode7: Code93

Barcode8: Code128

Advanced Settings

Element Width : Barcode Width size in dots

Element Height : Barcode Height size in dots

HRI Position :

Human Readable Interpretation refers to the characters printed below, above or both

side of Barcode Print

Rotation: Barcode rotation printing option

Hex input Mode :

This is the mode which accepts HEX data input from an application or Test Printing.

Example: In case to input "ABCJ" in Code-39 please type "4142434A" (Both 'A' and 'a' is acceptable)

Add Quiet Zone :

Add the blank margin on either side of a bar code that's used to tell the barcode reader where a barcode's symbology starts and stops. The purpose of a quiet zone is to prevent the reader from picking up information that does not pertain to the bar code that is being scanned

Test Data : Input the value to test the Barcode Print

5.6 2D Code
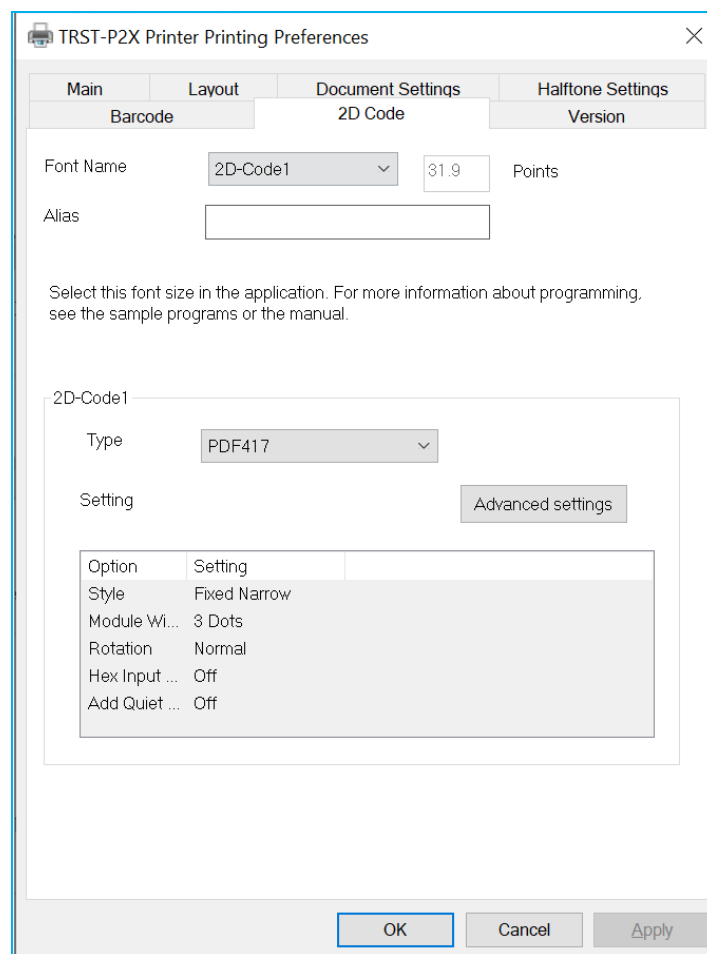
Font Name : There is 8 Barcode Font Name selection available

Type: PDF417 (2D Barcode)

Advanced Settings

Module Width : Set the PDF417 Barcode Width size (in dots)

Rotation: PDF417 Barcode rotation printing option

Hex input Mode :

This is the mode which accepts HEX data input from an application or Test Printing.

Example: In case to input " 0123456789" please type "30313233343536373839"

Add Quiet Zone :

Add the blank margin on either side of a bar code that's used to tell the barcode reader where a barcode's symbology starts and stops. The purpose of a quiet zone is to prevent the reader from picking up information that does not pertain to the bar code that is being scanned

Test Data : Input the value to test the PDF417 Barcode Print

5.7 Version

Show the version of printer driver
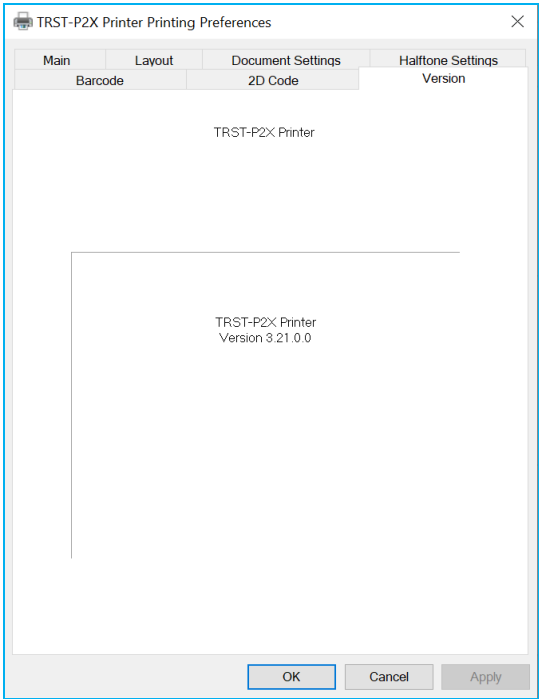
6. Printer Device Font

6.1 Introduction

This document contains sample snippets to explain on how to print device font on TRST-P1X and TRST-P2X Thermal Receipt printers with Windows Printer Driver

6.2 Setup Printer as Default Printer

1. Choose Start → Devices and Printers.

   The Devices and Printers window appears. The current default printer is indicated by a check mark.

2. Right-click any printer that isn't set as the default and choose "Set as Default Printer" from the shortcut menu.

   If you right-click the printer that is already set as the default, the Set as Default Printer command won't be available on the shortcut menu.
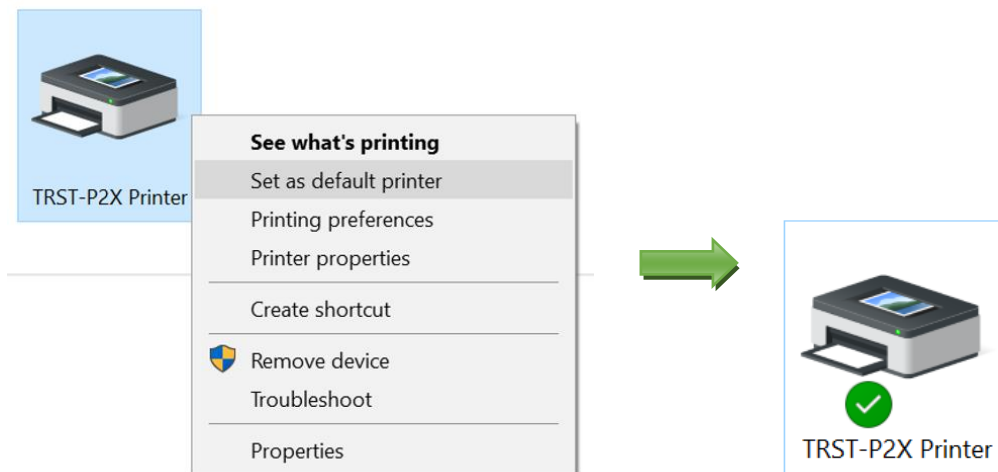
6.3 Supported Fonts

The following font names are supported by the Windows printer driver for TRST-P1X and TRST-P2X printer models
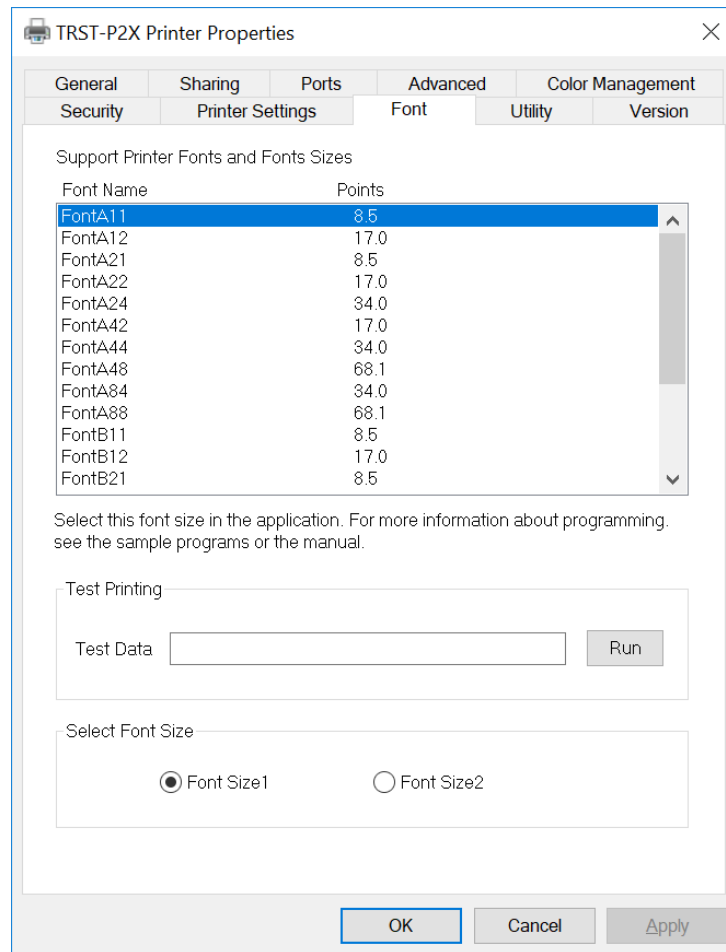
6.4 Sample Code

Note: Before you run the code, please install the Windows Printer Driver and make sure the printer is set as default printer.

6.4.1 Visual Basic 6.0

Printer Object

Visual Basic contains a global printer object, which refers to the default printer for the current system. Because this object is global to all parts of the VB project, you don't need to create an object variable, you can simply use the Printer object directly. Please refer *properties* and *methods* of the Printer Object in the following link.

Reference: please visit *https://docs.microsoft.com/en-us/previous-versions/bb882722(v%3Dvs.140)*

How To:

1. Create a New Standard EXE Project in Visual Basic 6.0.

2. Copy the following sample snippet.

3. Call the Function with an event (Ex. Button OnClick()).

4. The Printer will print the text.

```vb
Public Sub Print_FontA11()

    Printer.Font.Size = 11

    Printer.Font.Name = "FontA11"

    Printer.Print "FontA11"

    Printer.EndDoc

End Sub


Public Sub Print_FontA12()

    Printer.Font.Size = 19.9

    Printer.Font.Name = "FontA12"

    Printer.Print "FontA12"

    Printer.EndDoc

End Sub


Public Sub Print_FontA21()

    Printer.Font.Size = 9.9

    Printer.Font.Name = "FontA21"

    Printer.Print "FontA21"

    Printer.EndDoc

End Sub
```

6.4.2 Visual C++ (MFC)

6.4.2.1 Using Print Dialog

The following snippet prints a text with device font.

1. Create a variable with CPrintDialog with FALSE constructor.

```
CPrintDialog( BOOL bPrintSetupOnly, DWORD dwFlags = PD_ALLPAGES |
PD_USEDEVMODECOPIES | PD_NOPAGENUMS | PD_HIDEPRINTTOFILE |
PD_NOSELECTION, CWnd* pParentWnd = NULL);

bPrintSetupOnly

Specifies whether the standard Windows Print dialog box or Print Setup
dialog box is displayed. Set this parameter to TRUE to display the standard
Windows Print Setup dialog box. Set it to FALSE to display the Windows
Print dialog box. If bPrintSetupOnly is FALSE, a Print Setup option button
is still displayed in the Print dialog box.
```

2. Get Printer device defaults without displaying a dialog box.

```
dlg.GetDefaults();
```

NOTE: If you want show the print dialog, call the DoModal() and get the settings.

```
CPrintDialog dlg(FALSE);

if (dlg.DoModal() == IDOK)

{

}
```
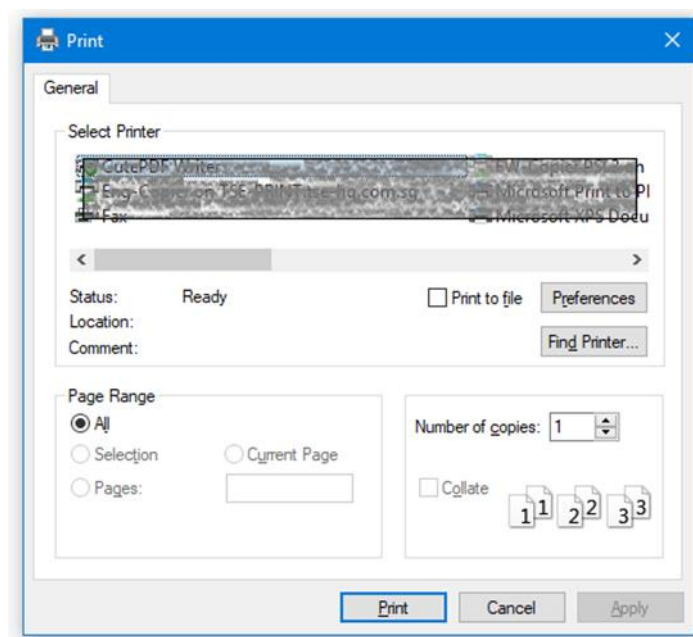
3. Get a handle to the printer device context (DC).

```
HDC hdcPrinter = dlg.GetPrinterDC();
```

4. Create the print document using DOCINFO structure.

5. Attach the handle Device Context "hdcPrinter" to "CDC dcPrinter".

6. Create the device font using CreateFontIndirect() and select the font for the device context.

```
LOGFONTA lf;
strcpy (lf.lfFaceName, "FontA42"); // Device Font Name
HFONT hfont = CreateFontIndirect(&lf);
HFONT holdfont = (HFONT)SelectObject(dcPrinter, hfont);
```

7. Draw the Text or any shapes to the CDC.

```
dcPrinter.TextOut(10 ,10, _T("FontA42 Regular"));
```

Reference: *https://docs.microsoft.com/en-us/cpp/mfc/reference/cdc-class?view=vs-2019*

8. End the document page.

```
dcPrinter.EndPage();
dcPrinter.EndDoc();
```

9. Cleanup the font objects to release the memory.

Create a VC++ (MFC) Project and call the following function.

```
void PrintSampleFonts()
{
        // Declaration
        CPrintDialog dlg(FALSE);
        HDC hdcPrinter;
        CDC dcPrinter;
        DOCINFO docinfo;
        LOGFONTA lf;
        HFONT hfont;
        HFONT  holdfont;
        int _XPOS;
        // Initialization
        dlg.GetDefaults();
        hdcPrinter = dlg.GetPrinterDC();
        memset(&lf , 0x00 , sizeof(LOGFONTA));
        memset(&docinfo,0,sizeof(docinfo));
        _XPOS = 10;

        if(hdcPrinter == NULL)
        {
                MessageBox("Printer Not Initialized ");
        }
        else
        {
                dcPrinter.Attach(hdcPrinter);
                docinfo.cbSize = sizeof(docinfo);
                docinfo.lpszDocName  = _T("DeviceFontSample");
                if(dcPrinter.StartDoc(&docinfo) < 0)
                {
                        MessageBox("StartDoc failed.");
                }
                else
                {
                        // Start a page
                        if(dcPrinter.StartPage() < 0 )
                        {
                                MessageBox("Could not start page");
                                dcPrinter.AbortDoc();
                        }
                        else
                        {
                                // Font A42 Regular
                                strcpy (lf.lfFaceName, "FontA42");
                                hfont = CreateFontIndirect(&lf);
                                holdfont = (HFONT)SelectObject(dcPrinter, hfont);
                                dcPrinter.TextOut(_XPOS ,10, _T("FontA42 Regular"));

                                // Font A21 Regular
                                memset(&lf , 0x00 , sizeof(LOGFONTA));
                                strcpy (lf.lfFaceName, "FontA21");
                                hfont = CreateFontIndirect(&lf);
                                holdfont = (HFONT)SelectObject(dcPrinter, hfont);
                                dcPrinter.TextOut(_XPOS,40, _T("FontA21 Regular"));
                                // Font A22 Regular
                                memset(&lf , 0x00 , sizeof(LOGFONTA));
                                strcpy (lf.lfFaceName, "FontA22");
                                hfont = CreateFontIndirect(&lf);
                                holdfont = (HFONT)SelectObject(dcPrinter, hfont);
                                dcPrinter.TextOut(_XPOS,80, _T("FontA22 Regular"));
                                dcPrinter.EndPage();
                                dcPrinter.EndDoc();
                                // Clean up.
                                SelectObject(dcPrinter, holdfont);
                                DeleteObject(hfont);
                        }
                }
        }
}
```

This is the device font Name provided by driver.

6.4.2.2   Direct Call using Printer Name

1. Create a variable for HDC and Create Device Context using CreateDC().constructor. Enter the printer name as highlighted below

```
HDC hdc = NULL;
hdc = CreateDC(TEXT("WINSPOOL"), TEXT("TRST-P2X Printer"), NULL , NULL);
```


TRST-P2X Printer   →   Printer Device Name
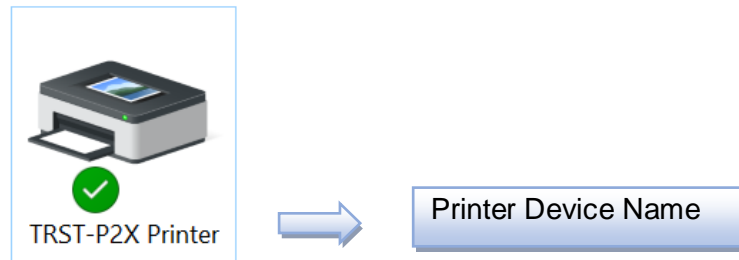
The following sample has only difference from above code is calling the printer without print dialog.

Create a VC++ (MFC) Project and call the following function.

```
void PrintSampleFonts()
{
        // Declaration
        HDC hdc = NULL;
        hdc = CreateDC(TEXT("WINSPOOL"), TEXT("TRST-P2X Printer"), NULL , NULL);
        HDC hdcPrinter;
        CDC dcPrinter;
        DOCINFO docinfo;
        LOGFONTA lf;
        HFONT hfont;
        HFONT  holdfont;
        int _XPOS;
        // Initialization
        dlg.GetDefaults();
        hdcPrinter = dlg.GetPrinterDC();
        memset(&lf , 0x00 , sizeof(LOGFONTA));
        memset(&docinfo,0,sizeof(docinfo));
        _XPOS = 10;
        if(hdcPrinter == NULL)
        {
                MessageBox("Printer Not Initialized ");
        }
        else
        {
                dcPrinter.Attach(hdcPrinter);
                docinfo.cbSize = sizeof(docinfo);
                docinfo.lpszDocName  = _T("DeviceFontSample");
                if(dcPrinter.StartDoc(&docinfo) < 0)
                {
                        MessageBox("StartDoc failed.");
                }
                else
                {
                        // Start a page
                        if(dcPrinter.StartPage() < 0 )
                        {
                                MessageBox("Could not start page");
                                dcPrinter.AbortDoc();
                        }
                        else
                        {
                                // Font A42 Regular
                                strcpy (lf.lfFaceName, "FontA42");
                                hfont = CreateFontIndirect(&lf);
                                holdfont = (HFONT)SelectObject(dcPrinter, hfont);
                                dcPrinter.TextOut(_XPOS ,10, _T("FontA42 Regular"));

                                // Font A21 Regular
                                memset(&lf , 0x00 , sizeof(LOGFONTA));
                                strcpy (lf.lfFaceName, "FontA21");
                                hfont = CreateFontIndirect(&lf);
                                holdfont = (HFONT)SelectObject(dcPrinter, hfont);
                                dcPrinter.TextOut(_XPOS,40, _T("FontA21 Regular"));

                                // Font A22 Bold Regular
                                memset(&lf , 0x00 , sizeof(LOGFONTA));
                                strcpy (lf.lfFaceName, "FontA22");
                                hfont = CreateFontIndirect(&lf);
                                holdfont = (HFONT)SelectObject(dcPrinter, hfont);
                                dcPrinter.TextOut(_XPOS,80, _T("FontA22 Regular"));

                                dcPrinter.EndPage();
                                dcPrinter.EndDoc();
                                // Clean up.
                                SelectObject(dcPrinter, holdfont);
                                DeleteObject(hfont);
                        }
                }
        }
}
```

6.5 References

1. MSDN - *https://support.microsoft.com/en-us/help/201978/how-to-use-printer-device-fonts*
2. *https://www.oreilly.com/library/view/vb-vba/1565923588/1565923588_ch07-1723-fm2xml.html*
3. CPrintDialog - *https://docs.microsoft.com/en-us/cpp/mfc/reference/cprintdialog-class?view=vs-2019*
4. CreateFontIndirectA - *https://docs.microsoft.com/en-us/windows/win32/api/wingdi/nf-wingdi-createfontindirecta*
5. LOGFONTA structure - *https://msdn.microsoft.com/en-us/ie/aa741230(v=vs.94)*