

Printer Driver Manual for Windows

 **SANEI ELECTRIC INC.**

Rev2.01 2203

Contents

1 . Function overview	4
1-1. Function overview.....	4
1-2. Operating Environment.....	4
2 . Uninstall	5
3 . Install	8
3-1. Installation procedure (First time only).....	8
3-2. Installation procedure (After the second time).....	14
4 . Format Setting.....	19
4-1. Print orientation.....	19
4-2. Paper Source	20
4-3. Printing format setting.....	21
5 . How to create and register the paper size	23
5-1. How to newly create the paper size	23
5-2. How to set the paper size	25
6 . Status acquisition function.....	26
6-1. How to register the printer driver.....	26
6-2. Setting items of Printer Status Service.....	29
6-3. Status Acquisition Function.....	30
6-4. Error status and the way to remove the error.....	31
6-5. Status API.....	32
6-6. Printer error list and response priorities	32
7 . Revision records	33

Introduction

Please read the following terms and conditions of use before installing the software.

During installation, you are assumed to have agreed to the following terms and conditions of use.

If you do not agree to those, stop installing the software and delete all distributed files.

Caution

- This software is owned by SANEI ELECTRIC INC. (hereafter SANEI), and SANEI holds the copyright and other related rights for the product.
- SANEI grants the right of use of the software to users so that they may use the products of SANEI in relation to the software.
- This software cannot be modified in any form in whole or in part. However, it can be copied or distributed as you desire.
- SANEI assumes no responsibility with the failure of software and software itself.
- SANEI assumes no responsibility with respect to possible direct or indirect loss or damage resulting from use of the software.
- SANEI may change the specifications of the software without prior permission from or notification of the user.

*Microsoft Windows is a registered trademark of the Microsoft Corporation in the United States.

1 . Function overview

1-1. Function overview

The printer driver provides functions as Windows Printer from various software, which support printing function. The documents containing TrueType fonts or graphic data are printed after converting to monochrome graphics. Additional function is realized for using function like obtain error status of printers.

1-2. Operating Environment

OS:

Microsoft Windows 7 (32bit / 64bit) SP1.

Microsoft Windows 8. (32bit / 64bit) SP1.

Microsoft Windows 8.1. (32bit / 64bit)

Microsoft Windows 10. (32bit / 64bit)

Microsoft Windows 11. (32bit / 64bit)

Interface:

USB / Printer class

Applicable printer models:

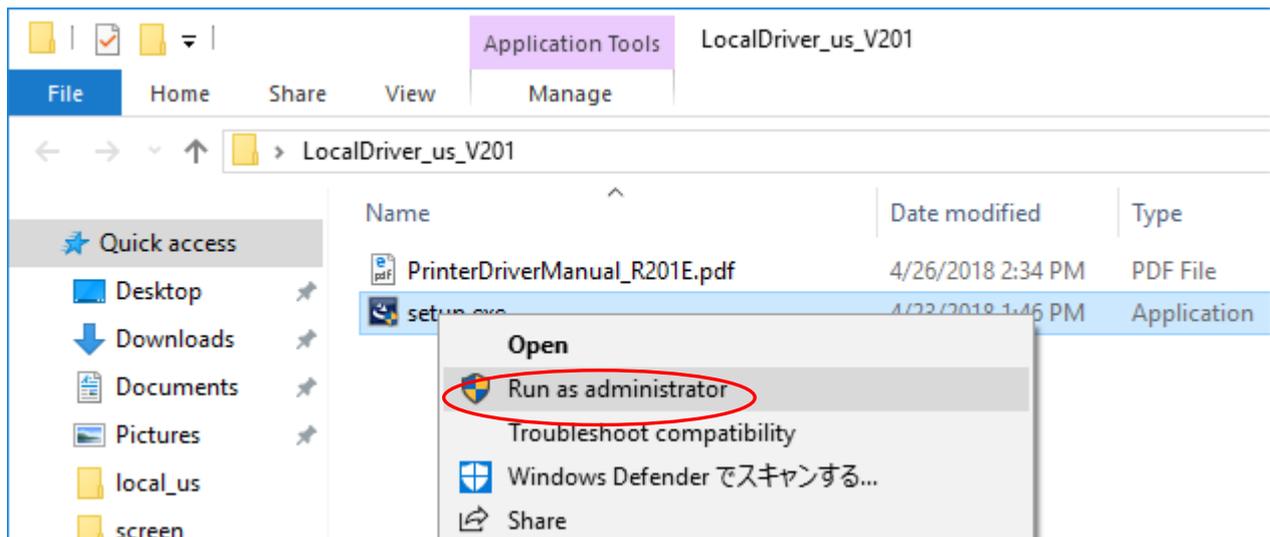
- SK1 Series
- SK4 Series
- BL2-58 Series
- SP1-21 Series
- SP2-21 Series
- SP3-21 Series

2. Uninstall

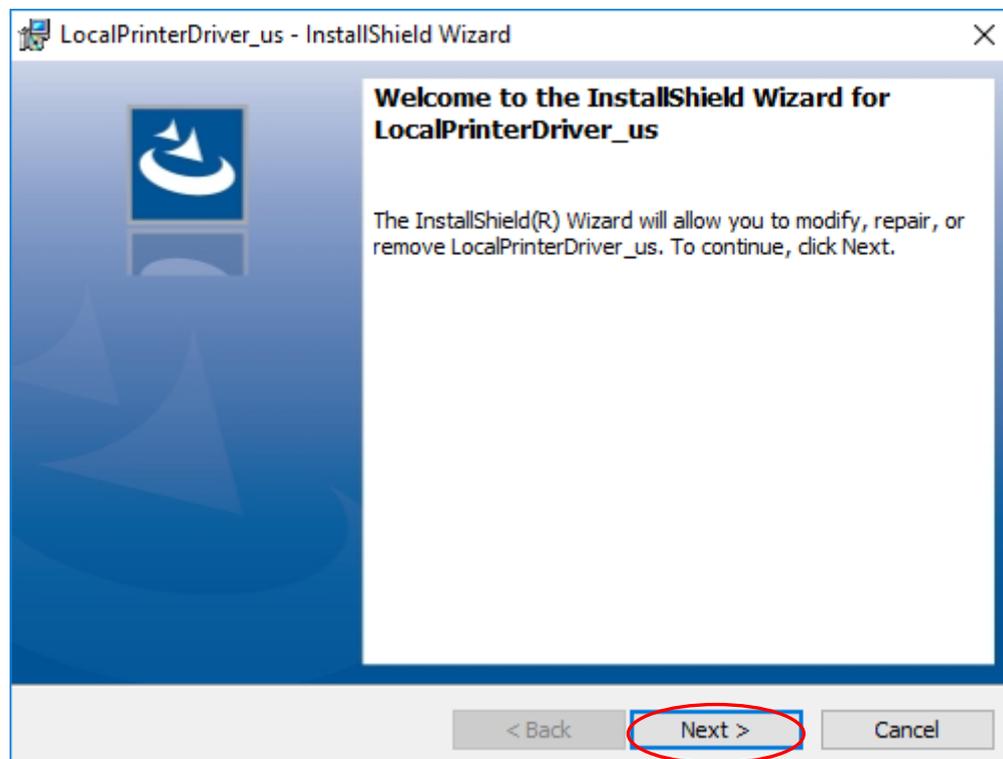
The uninstalling procedure is as follows for the driver of "SANEI SK1-31S" as a sample.

To update the driver, install the driver anew after uninstalling the driver already installed.

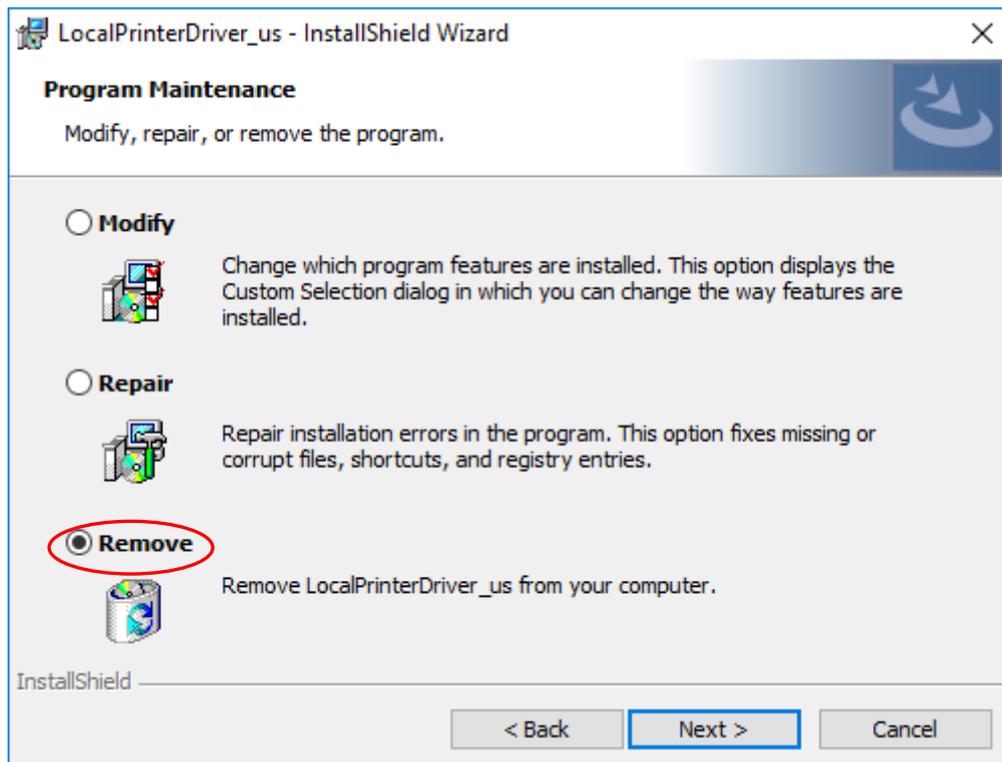
STEP1. Right-click "setup.exe" in the LocalDriver_us_V201 folder and select "Run as administrator".



STEP2. Click "Next".

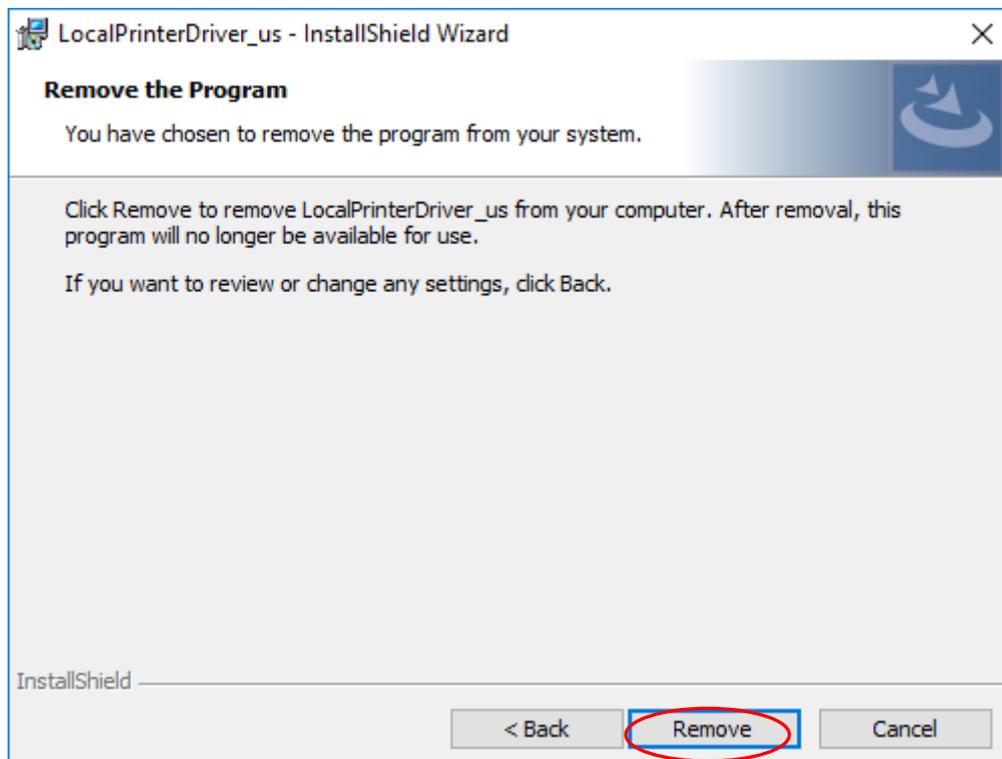


STEP3. Check the "Remove" and Click "Next".



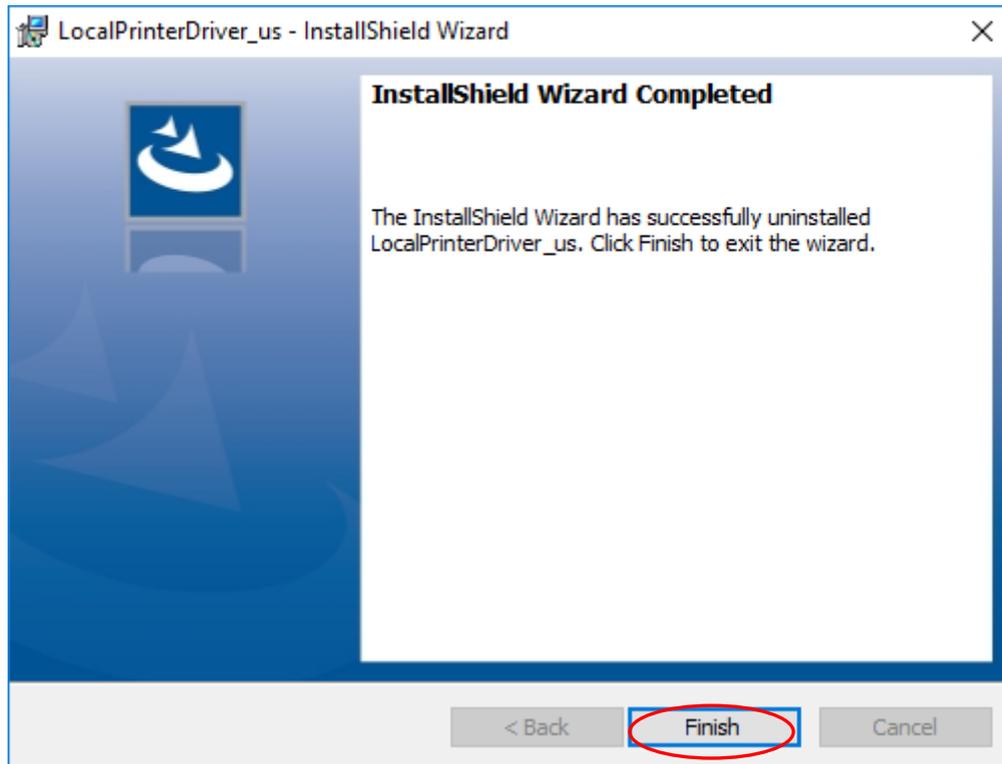
*This driver does not correspond to modify and repair.

STEP4. Click "Remove".



STEP5. Click "Finish".

The driver will be deleted in this step.



3 . Install

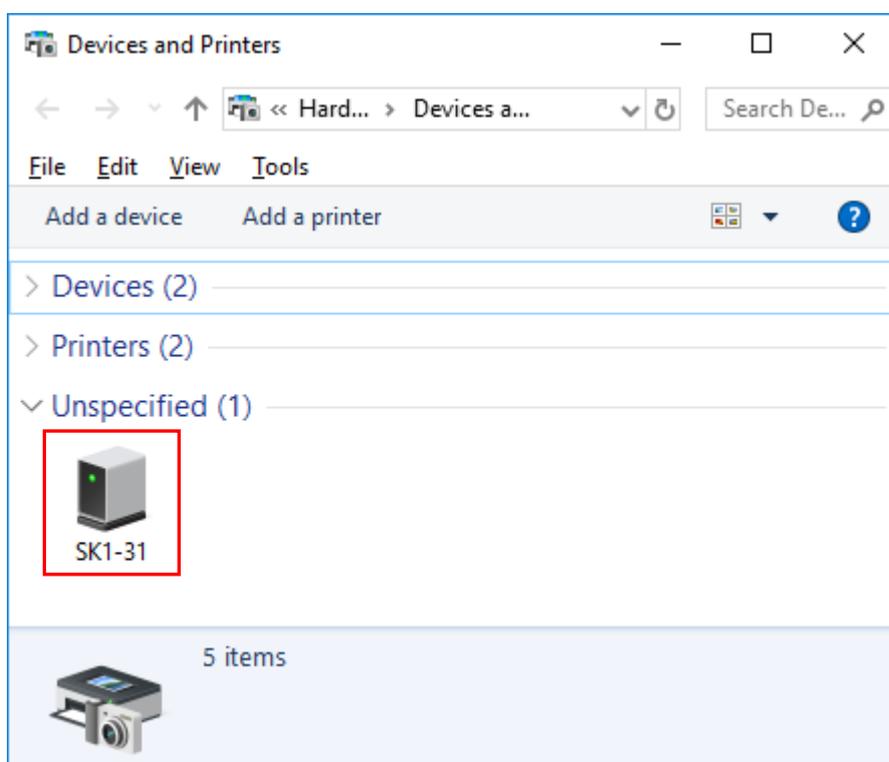
3-1. Installation procedure (First time only)

Installation procedure is explained as follows for the driver of "SANEI SK1-31S" as a sample.

The installation guide screen may be different depending the Windows OS.

STEP1. The using PC should be connected with USB cable.

The icon of column of [Unspecified] on the window of [Devices and Printers] is appeared.



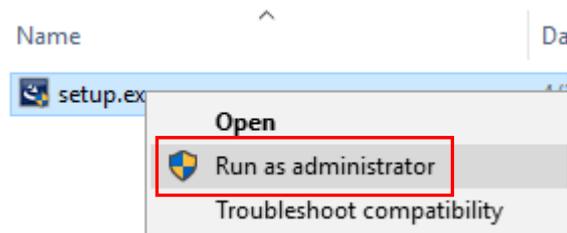
※As shown in the figure below, If a clock mark is displayed on the icon, please wait until the clock mark disappears.

Unspecified (1)

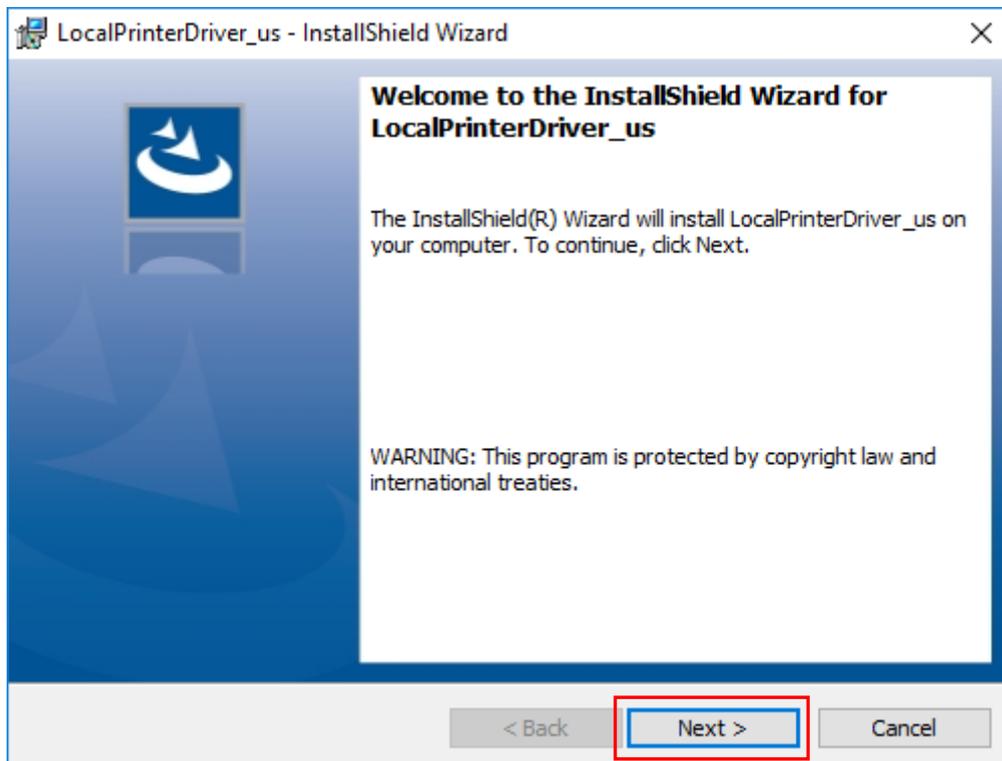


Displaying clock mark

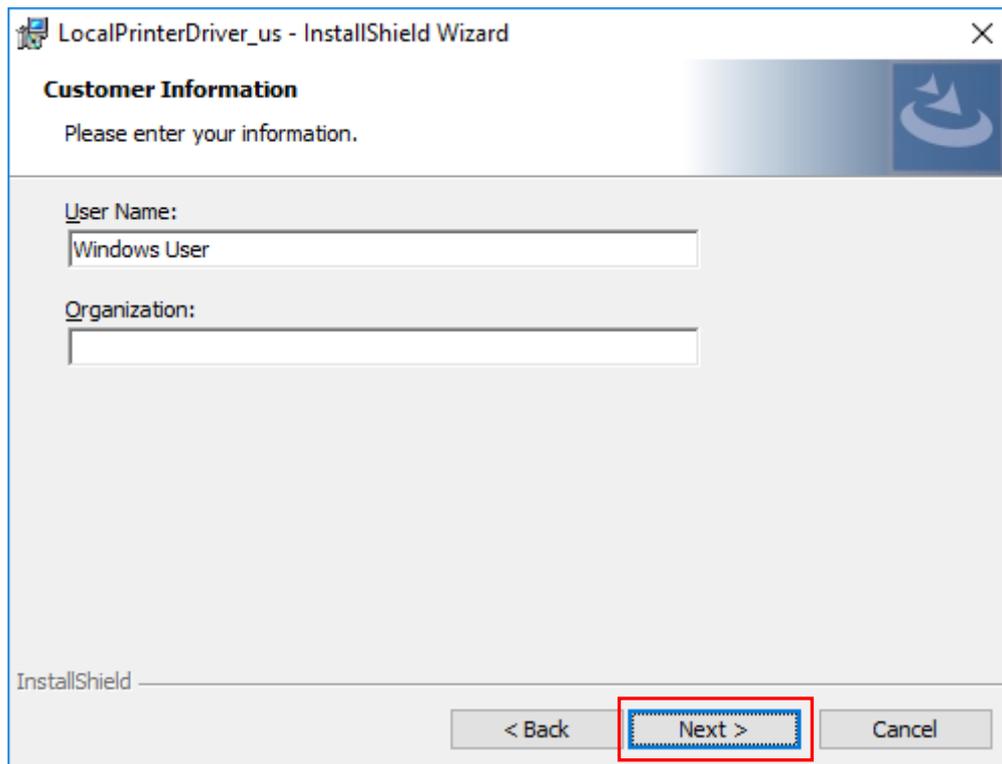
STEP2. Right click the [setup.exe] in the driver folder and then select the [Run as administrator].



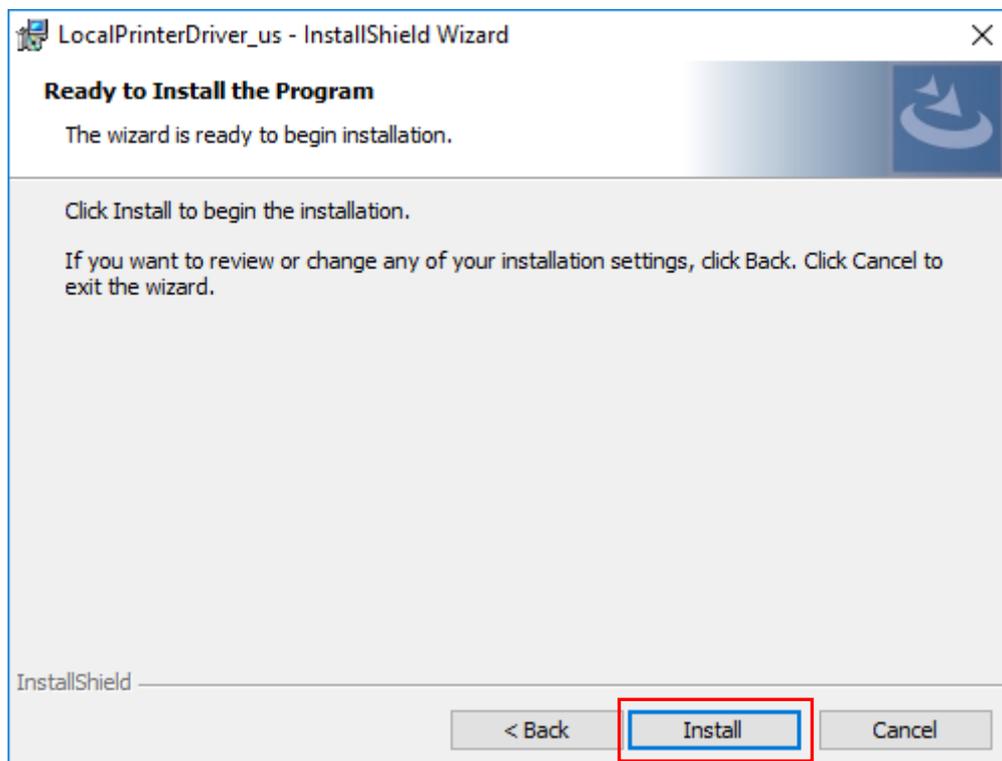
STEP3. Click the [Next] after the installer starts up.



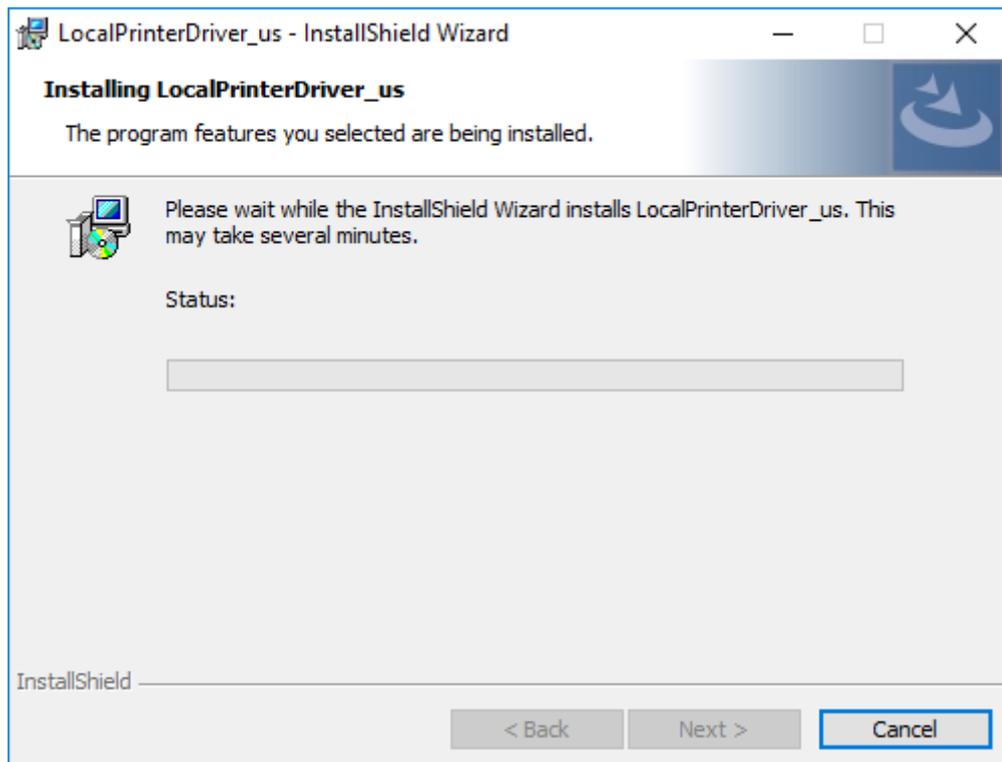
STEP4. Click the [Next] after the input of Customer Information.



STEP5. Click the [Install].

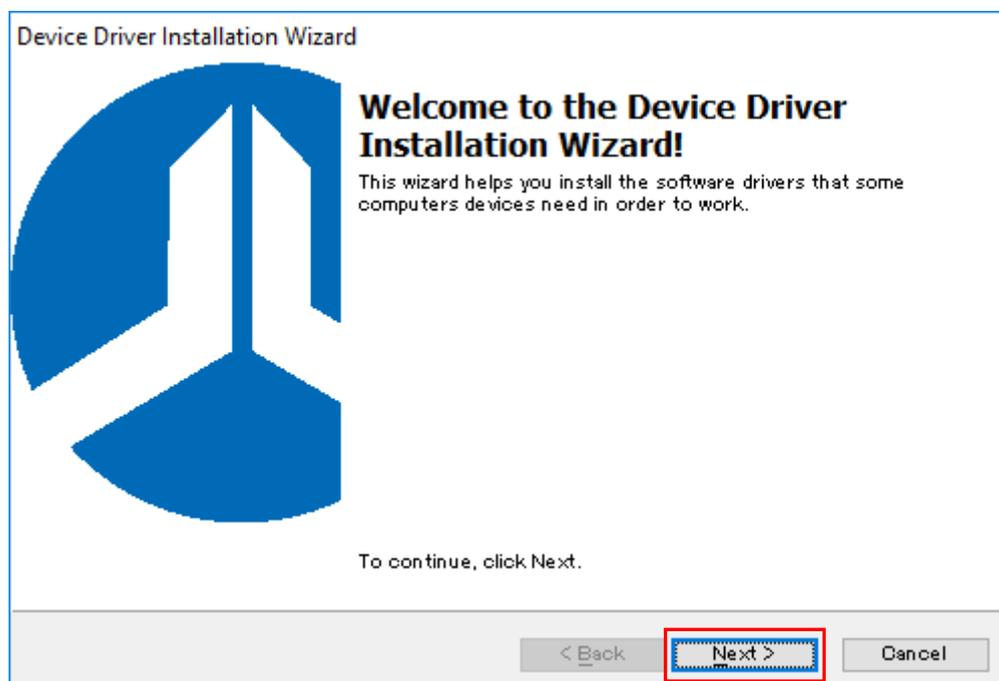


STEP6. The installation starts, so please wait for a while.

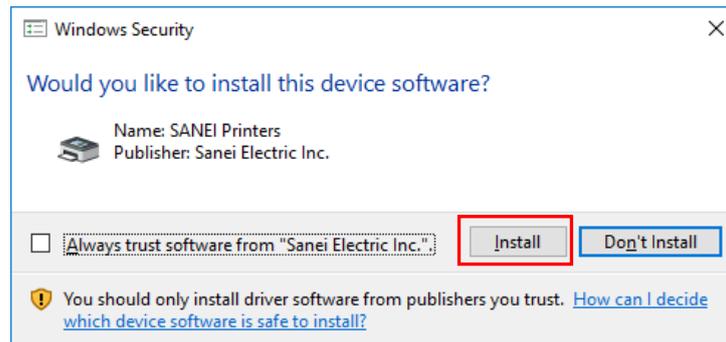


STEP7. The installation wizard starts in the separate window.

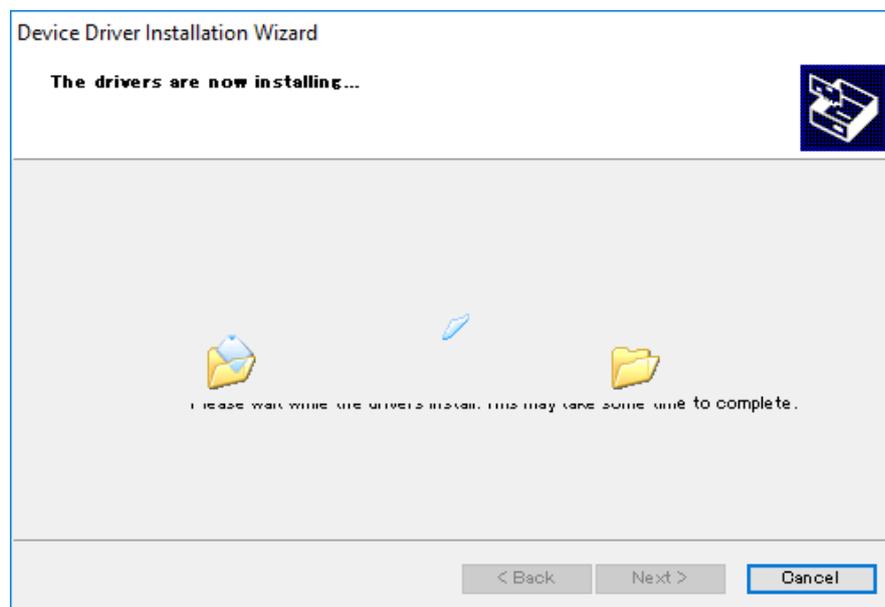
Click the [Next].



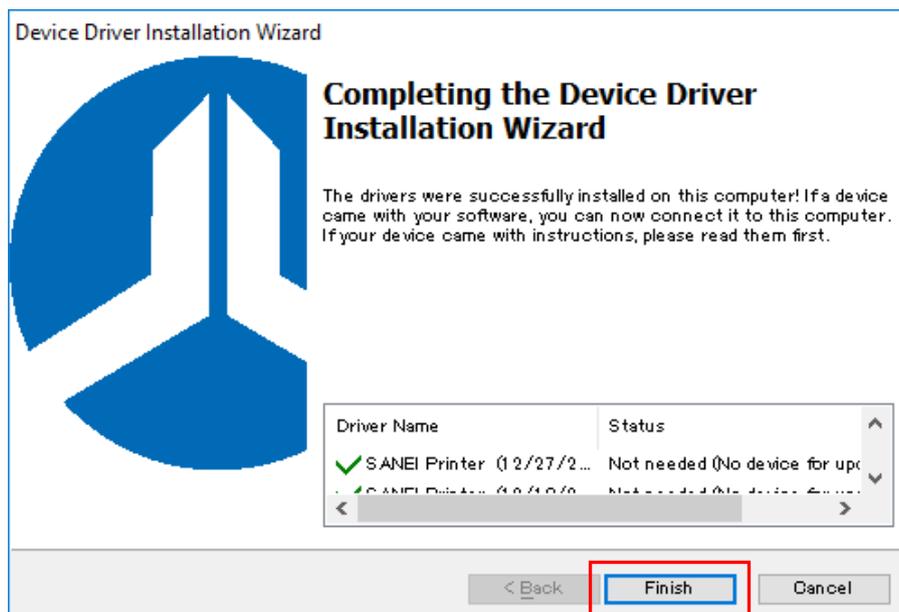
STEP8. If the following screen is displayed, click "Install".



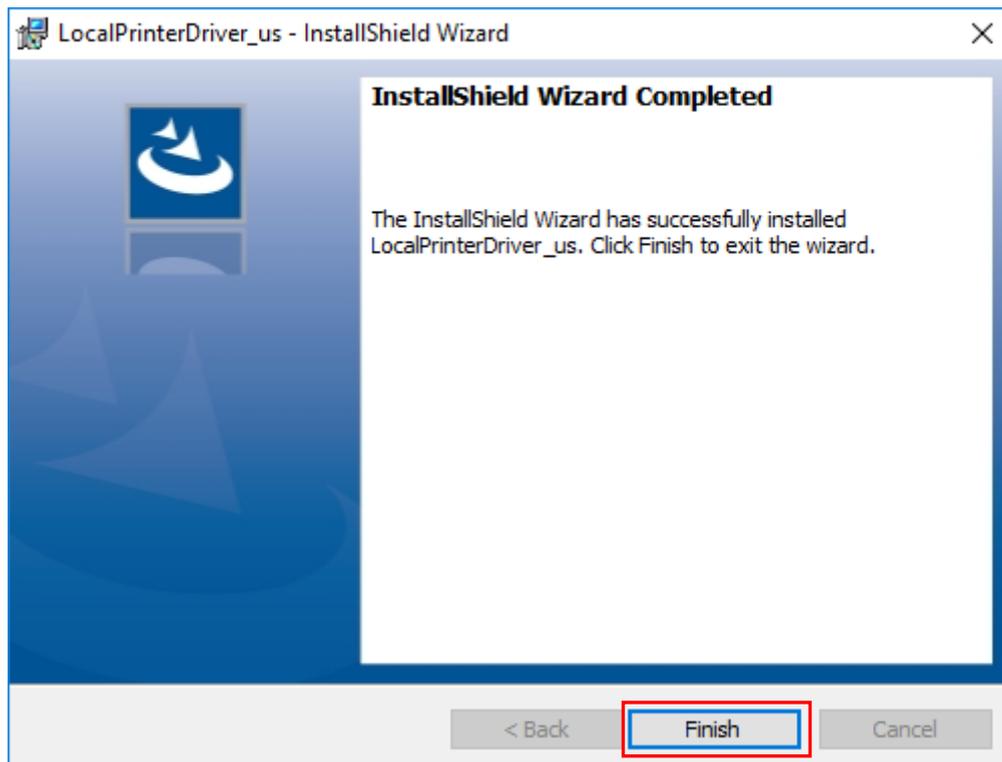
STEP9. The installation starts, so please wait for a while.



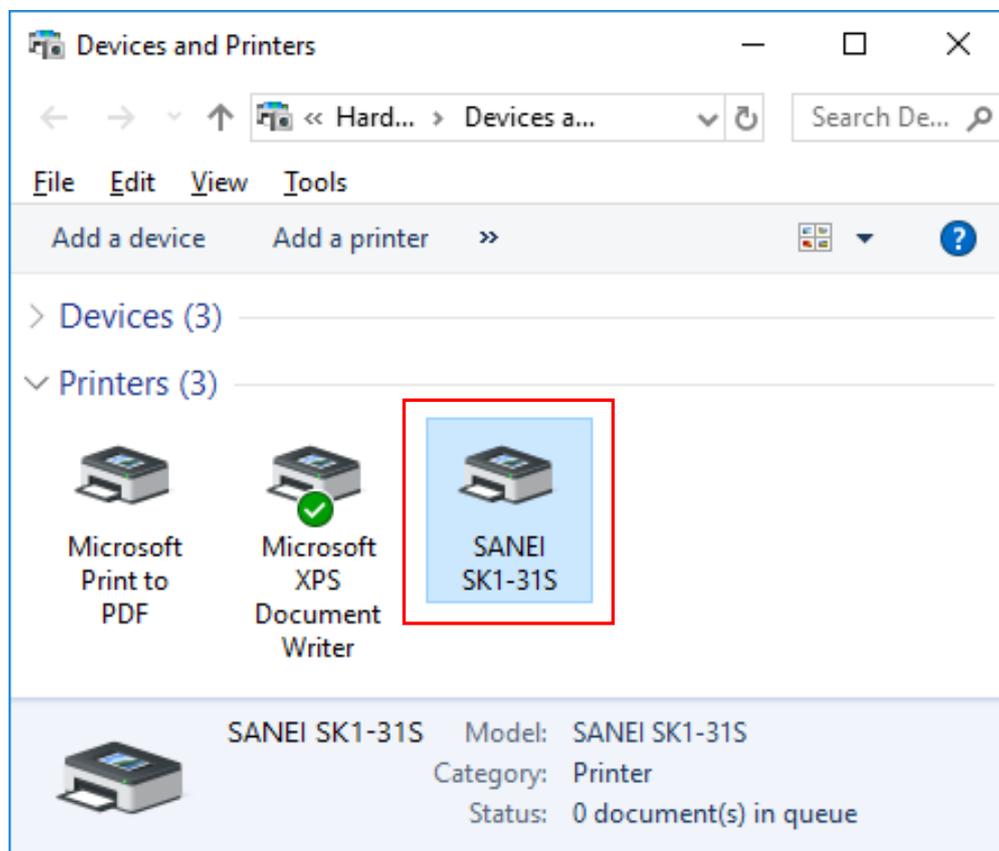
STEP10. Click the [Finish] when the completion screen shown below appeared.



STEP11. Click the [Finish] of InstallShield Wizard.



STEP12. The Driver icon is displayed in the item of printers after the completion of installation.



3-2. Installation procedure (After the second time)

The installation procedure after the second time is as follows for the PC already installing the local driver.

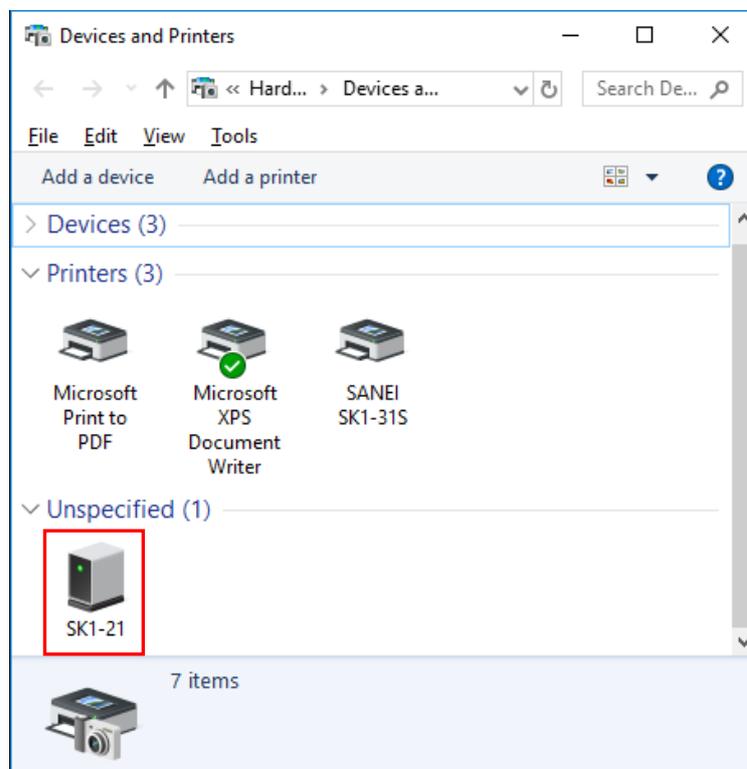
The installation procedure is explained as follow for the driver of "SANEI SK1-21" as a sample.

The name of driver is different depending on printers being installed.

The installation guide screen may be different depending on the Windows OS.

STEP1. The using PC should be connected with USB cable.

The icon of column of [Unspecified] on the window of [Devices and Printers] is appeared.



※As shown in the figure below, If a clock mark is displayed on the icon, please wait until the clock mark disappears.

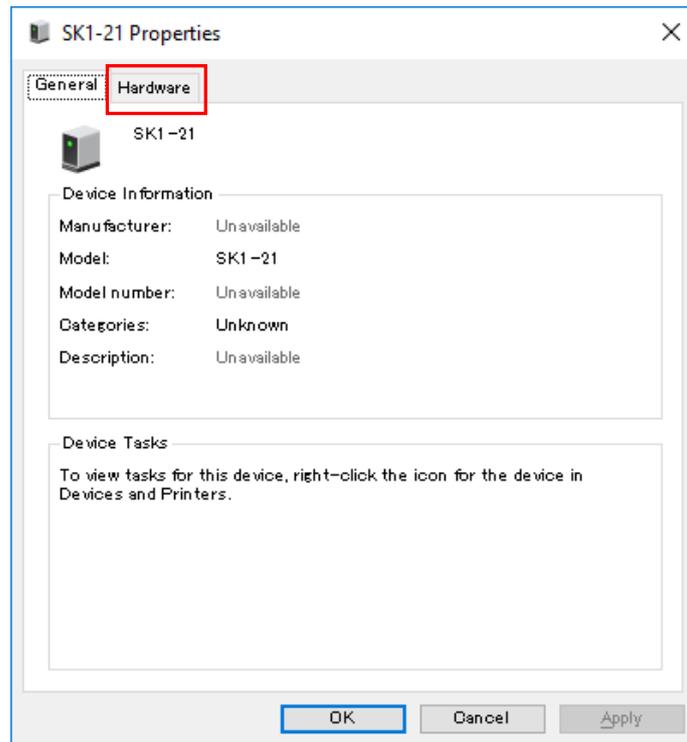
▼ Unspecified (1)



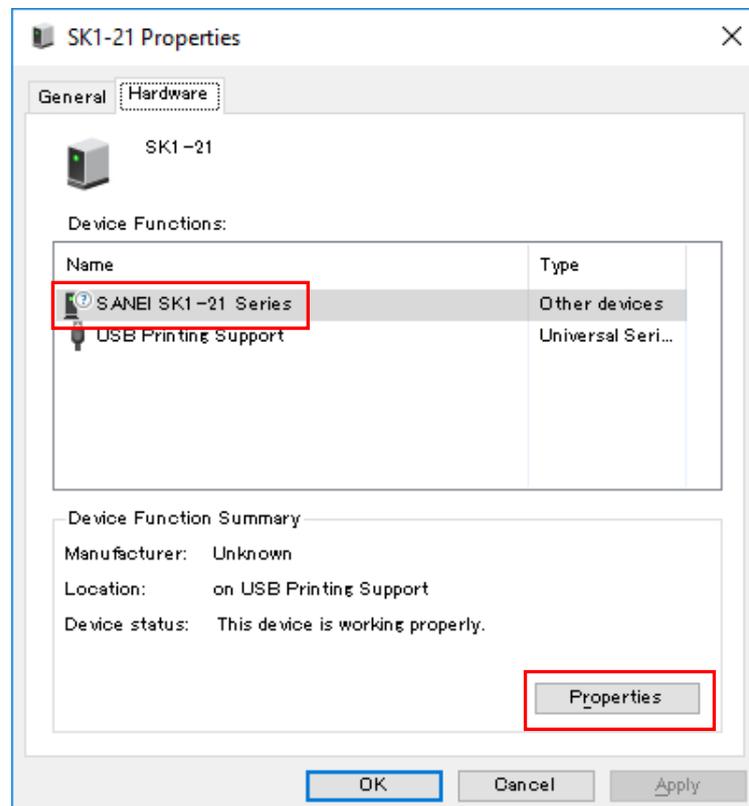
Displaying clock mark

STEP2. Double click the icon of driver of [SK1-21].

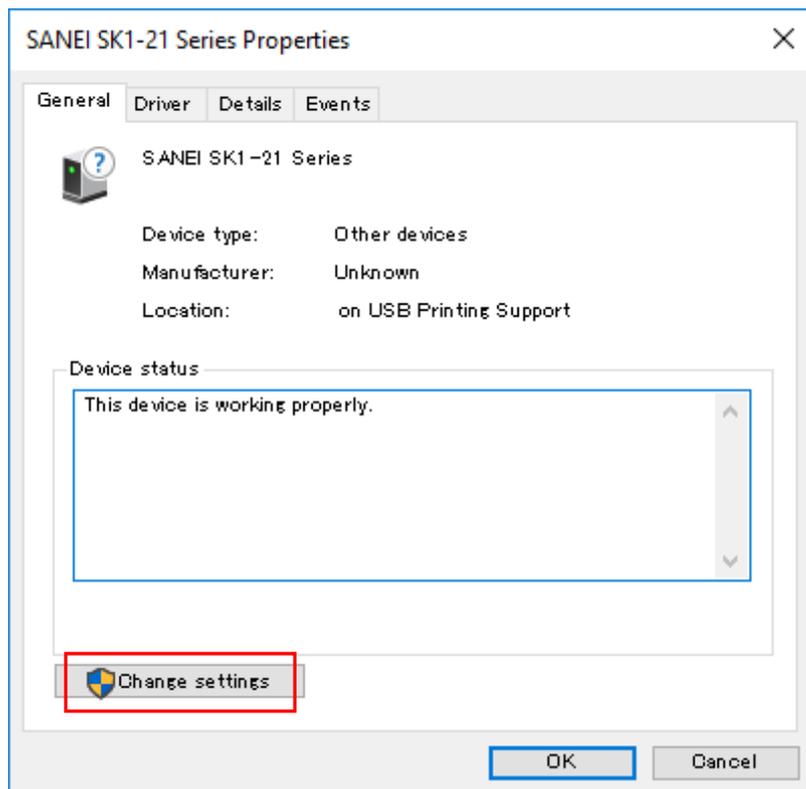
STEP3. Click the tab of [Hardware] after the property screen appeared.



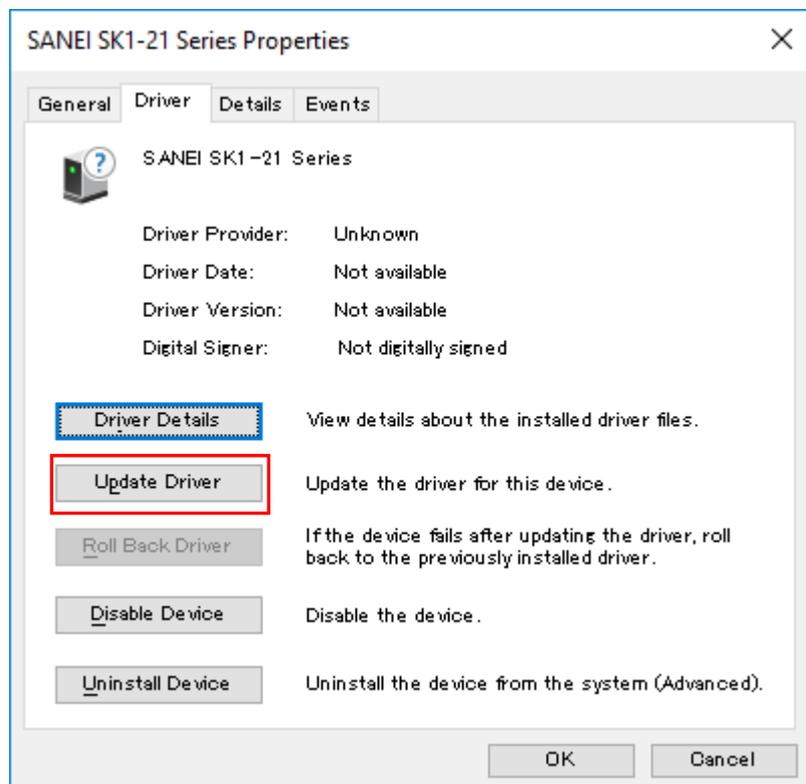
STEP4. Select [SANEI SK1-21 Series] and then click the tab of the [Properties].



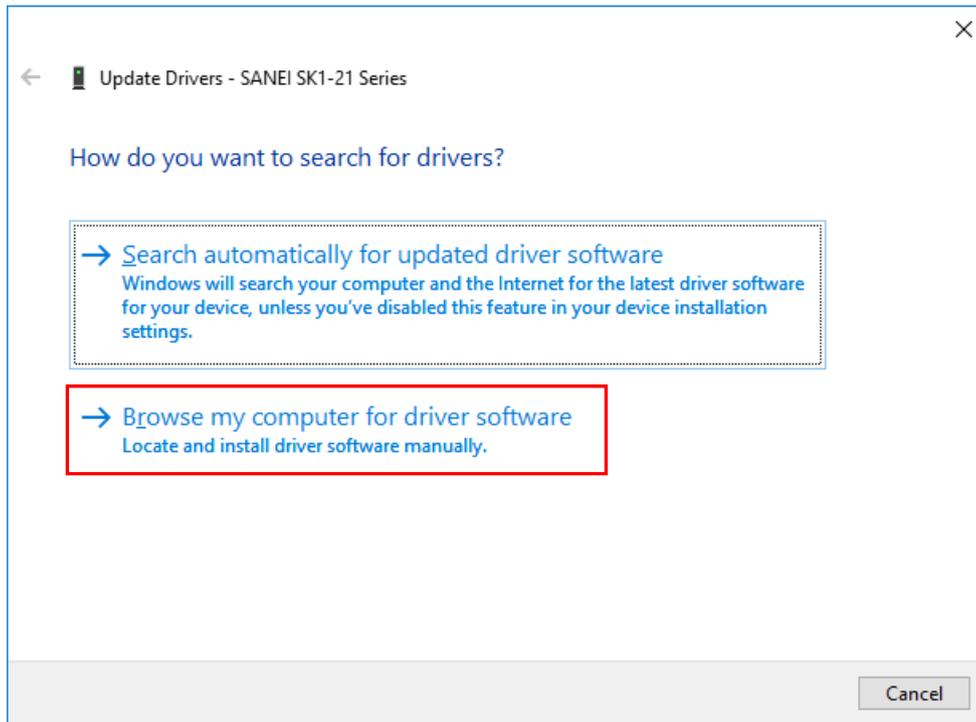
STEP5. Click the [Change settings].



STEP6. Click the [Update Driver].



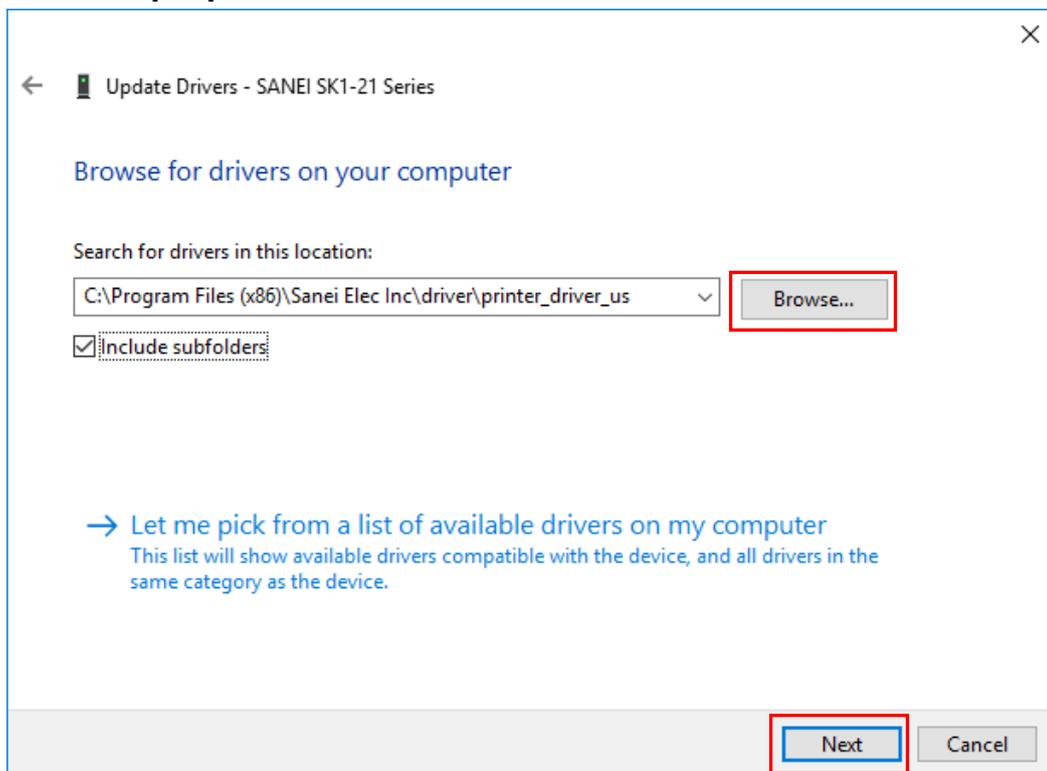
STEP7. Click the [Browse my computer for driver software].



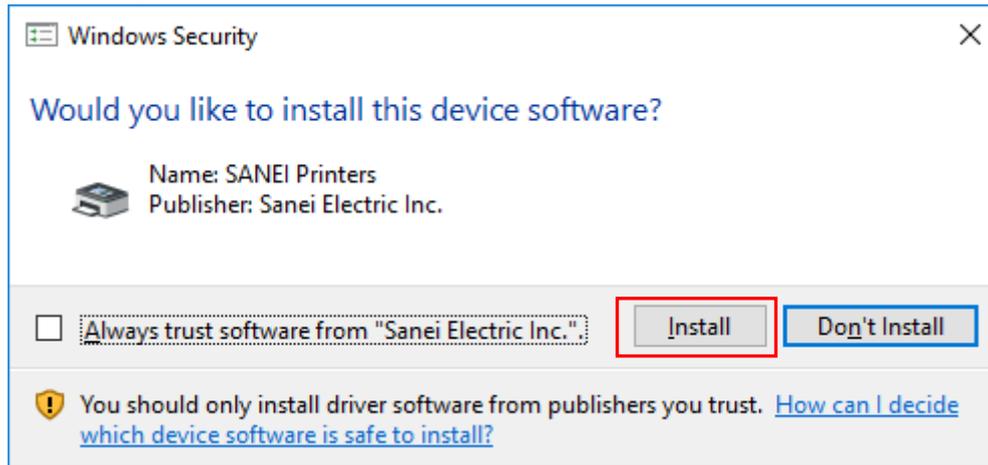
STEP8. Click the [Browse] and then appoint the save place of the following driver.

64bit OS : "C:\Program Files (x86)\Sanei Elec Inc\driver\printer_driver_us"
32bit OS : "C:\Program Files\Sanei Elec Inc\driver\printer_driver_us"

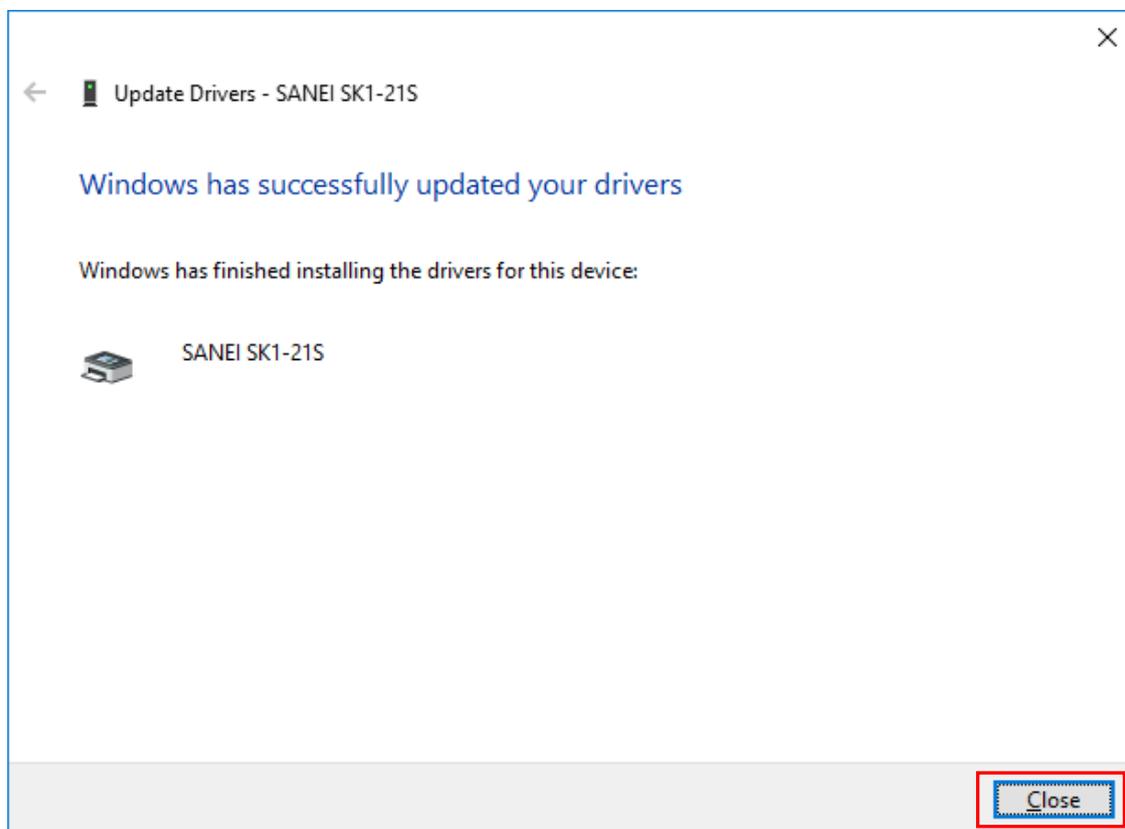
Then, click the [Next].



STEP9. Click the [Install].



STEP10. Click the [Close] to complete the installation.



4. Format Setting

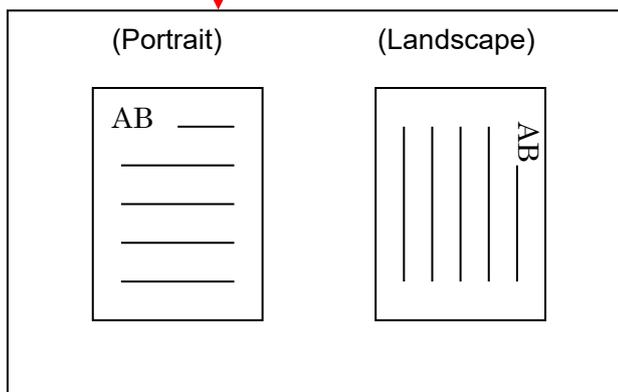
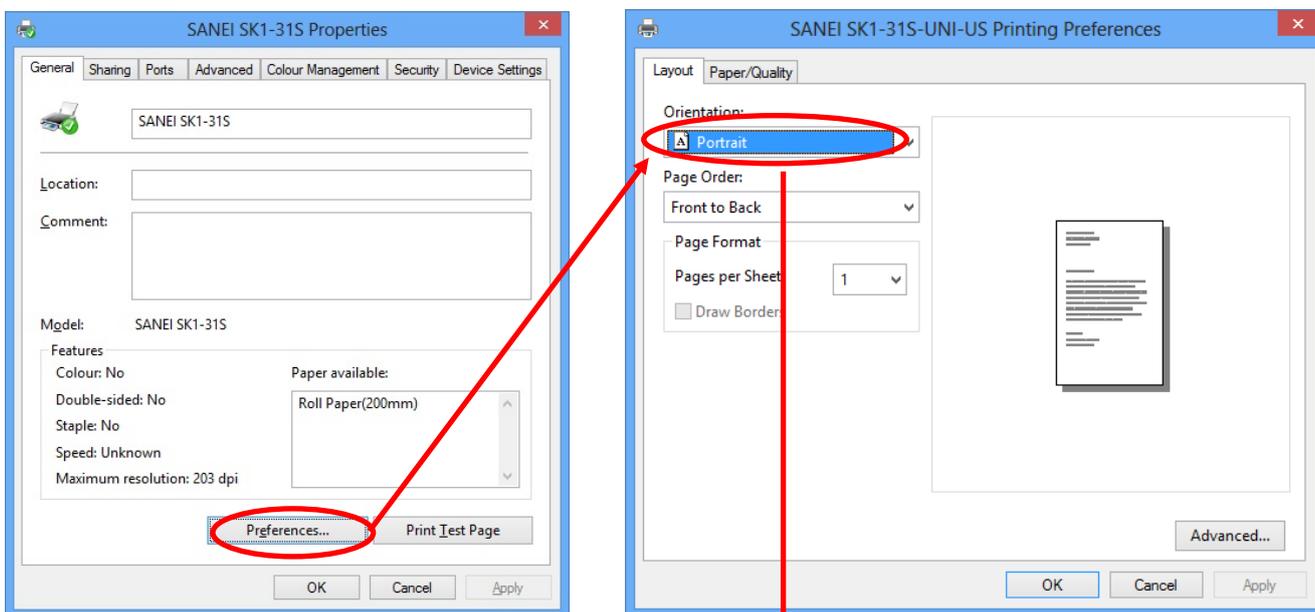
The following functions can be set with the basic setting of printer properties.

- Print orientation
- Paper Source
- Printing format setting

4-1. Print orientation

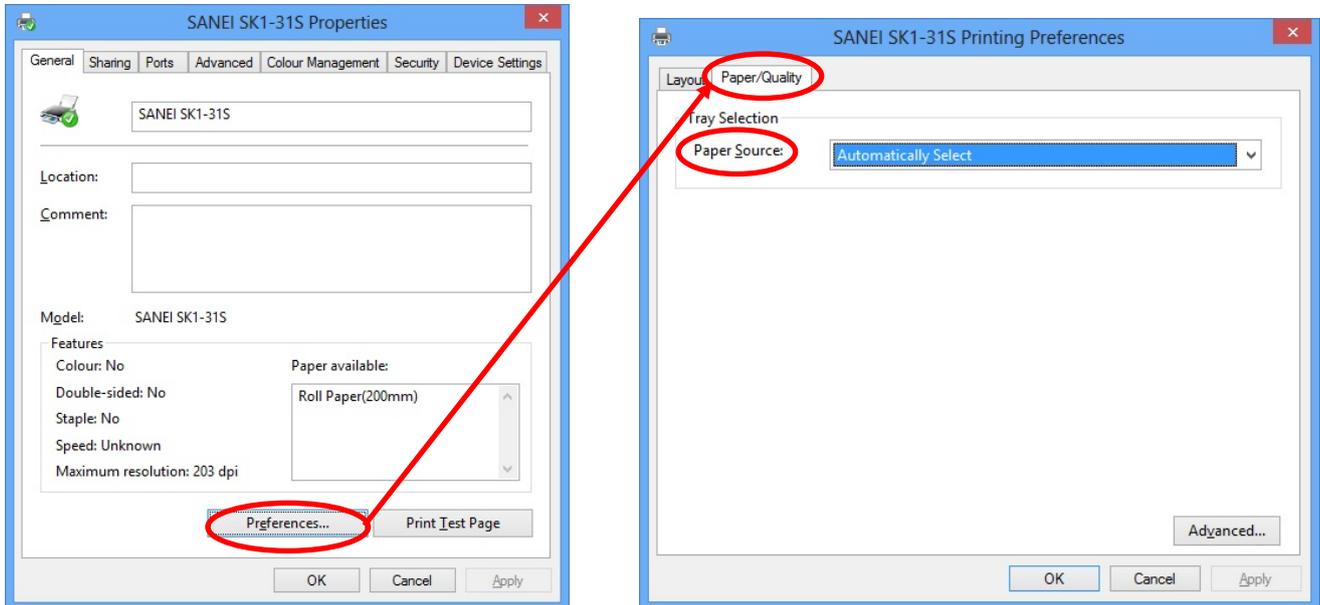
Orientation of printing can be set by 'orientation' of 'Preferences' in 'General' tab.

If the orientation can be set by an application, the setting by the application is given a priority over that of Properties.



4-2. Paper Source

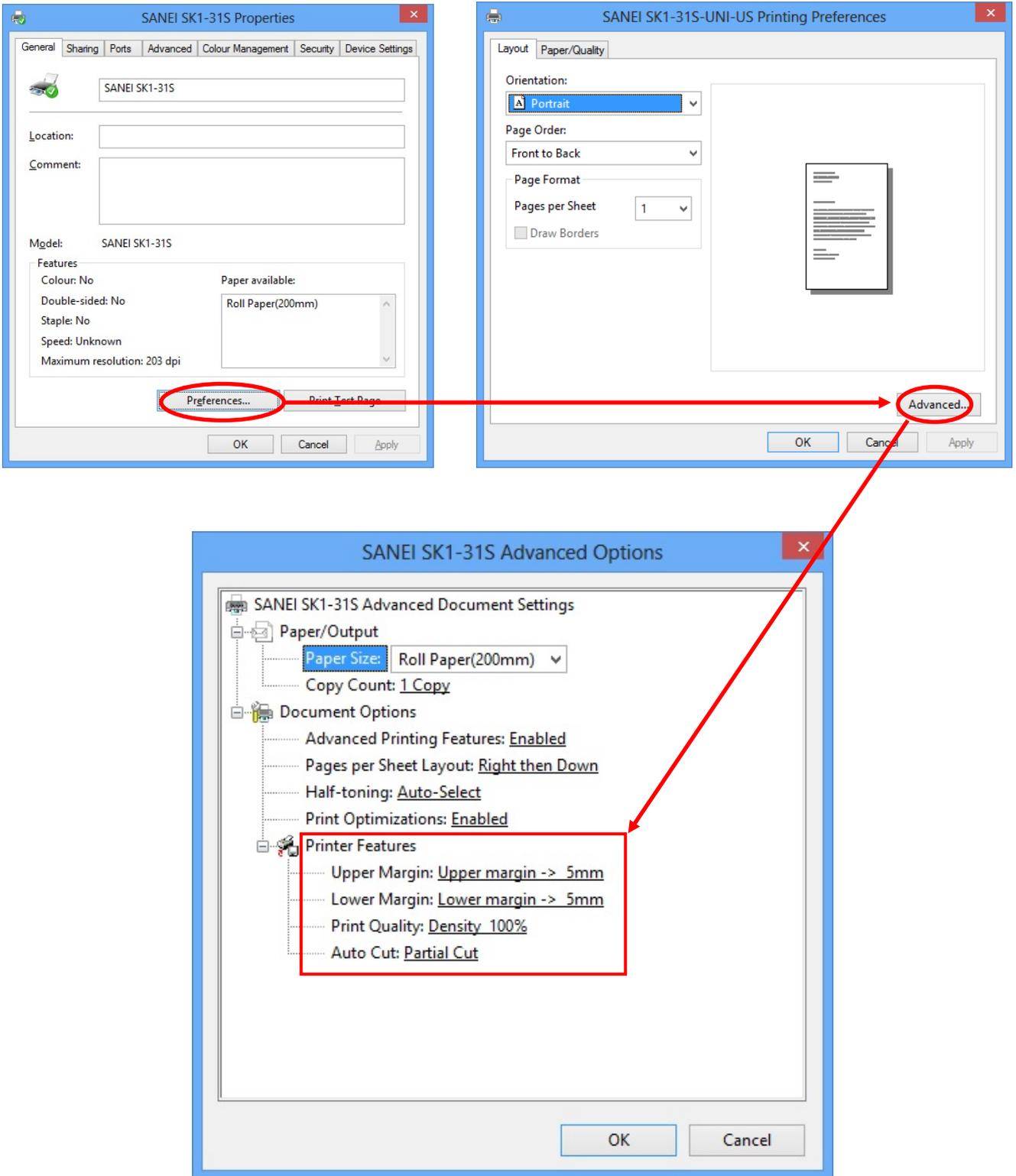
Paper source can be selected by 'Paper Source' of 'Preferences' in 'Paper/Quality' tab.



- Variable length
Print by length of layout.
The length is depended on the page layout.
- Fixed length
Print by the size of media set.
If the layout is shorter than the size of the media, it prints by the size of media.
- Automatically Select
Printing length can be switched fixed length and Variable length automatically by selected media size.
* If the setting is wrong, warning window is displayed, and correct the setting automatically.

4-3. Printing format setting

Printing format can be select by 'Preferences' – 'Advanced.'



• List of setting

* The following item of settings are depended on type of printer.

■ Paper Size

Select the paper size for printing

■ Upper Margin

Insert upper margin page by page.

Setting area {0mm , 5mm , 10mm , 15mm , 20mm}

■ Lower Margin

Insert lower margin page by page.

Setting area {0mm , 5mm , 10mm , 15mm , 20mm}

■ Print Quality (Print density)

Select print density

Setting area {60% , 80% , 100% , 120% , 140% , 160% , 180% , 200% }

The default setting is '100%'.

* 160% of the density is a parameter for using particular media that is not recommended.

Thus, if you select '160%', Sanei doesn't warrant the life and durability of printer, because of decreasing printer life. Please test enough the function of the setting at your company.

■ Auto Cut

Select cutting function page by page.

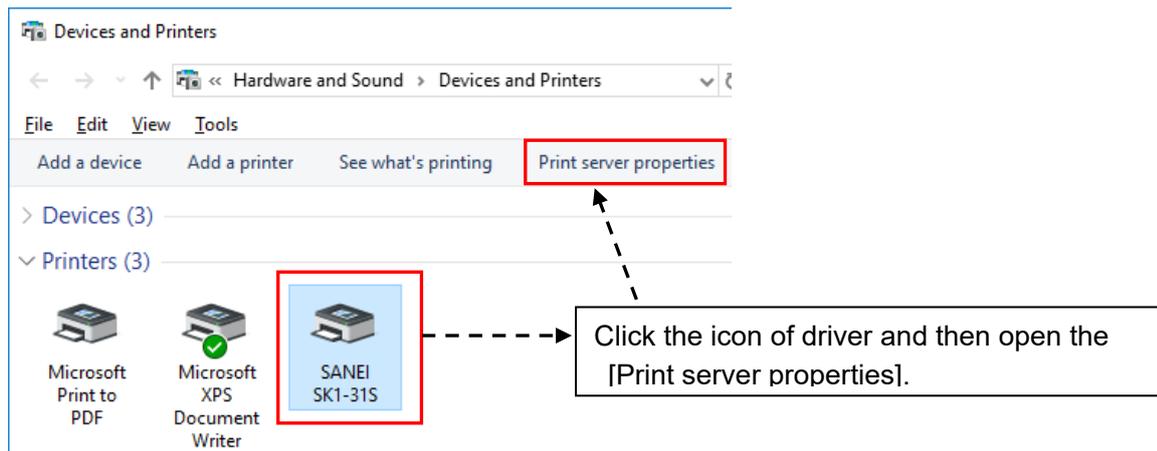
- No Cut : Printer doesn't cut paper.
- Partial Cut : Cut paper without one point.
- Full Cut : Fully cut paper.

5 . How to create and register the paper size

5-1. How to newly create the paper size

Take the following procedure in case of the new registration of the paper size.

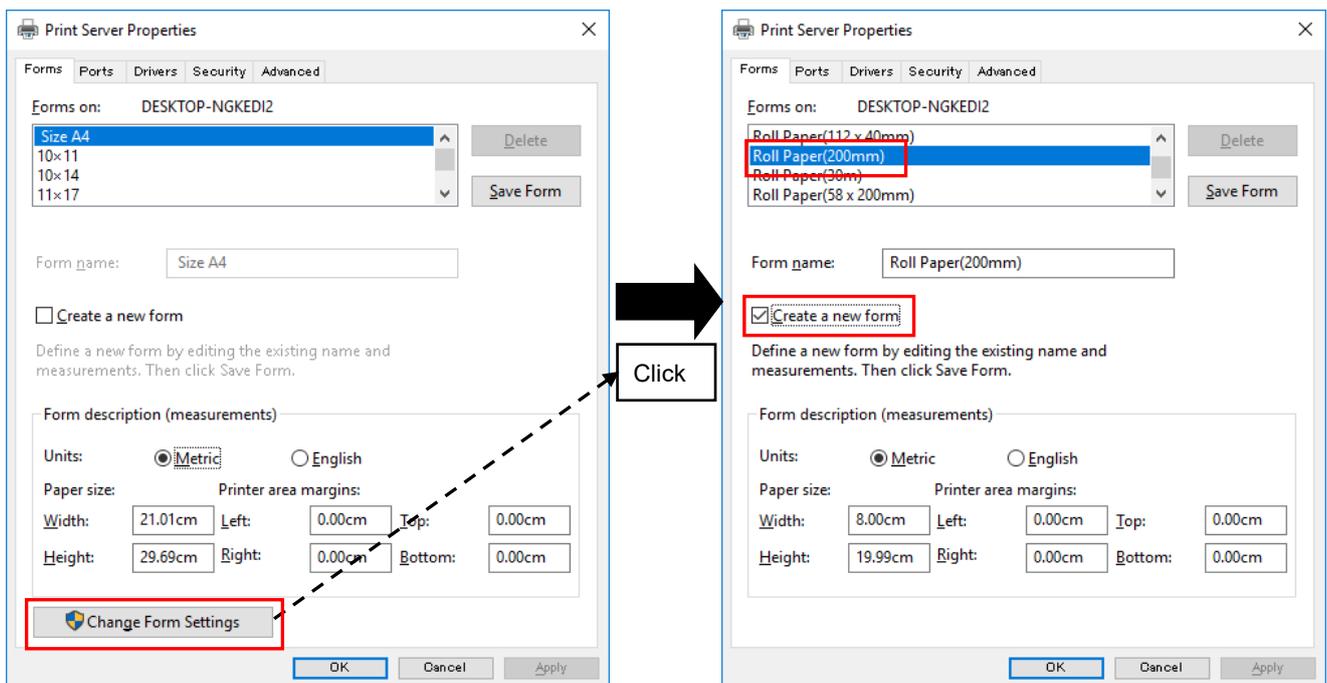
STEP1. Click the icon of relative driver from the window of [Devices and Printers] and then open the [Print server properties].



STEP2. Click the [Change from Settings] from the tab of [Forms].

STEP3. Select the paper size of default applied to Printer Driver from the paper list and then check the [Create a new form].

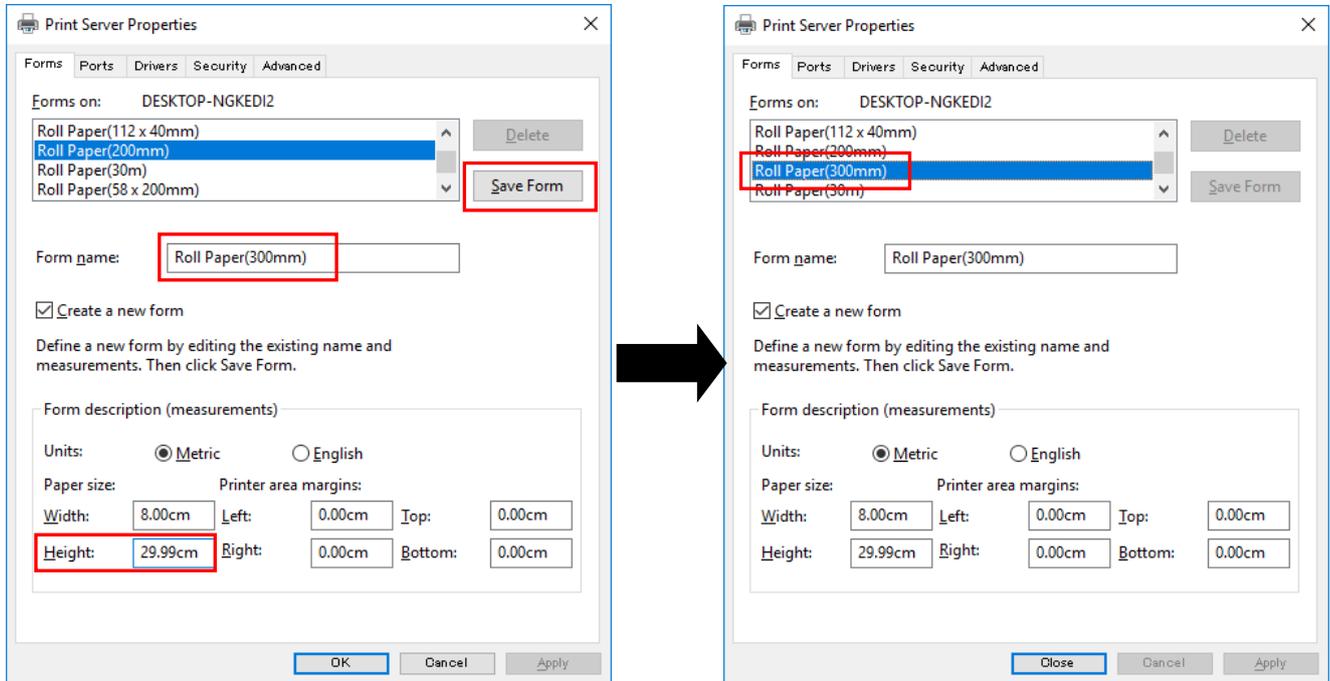
※For the following case, select the [Roll Paper(200mm)].



STEP4. Input the paper name and size (80mmX300mm) and use the [Save Form] to decide.

※The following sample indicates the paper size (80mmX300mm) and the paper name of [Roll Paper(300mm)].

STEP5. The target paper is registered and the paper creation is completed.

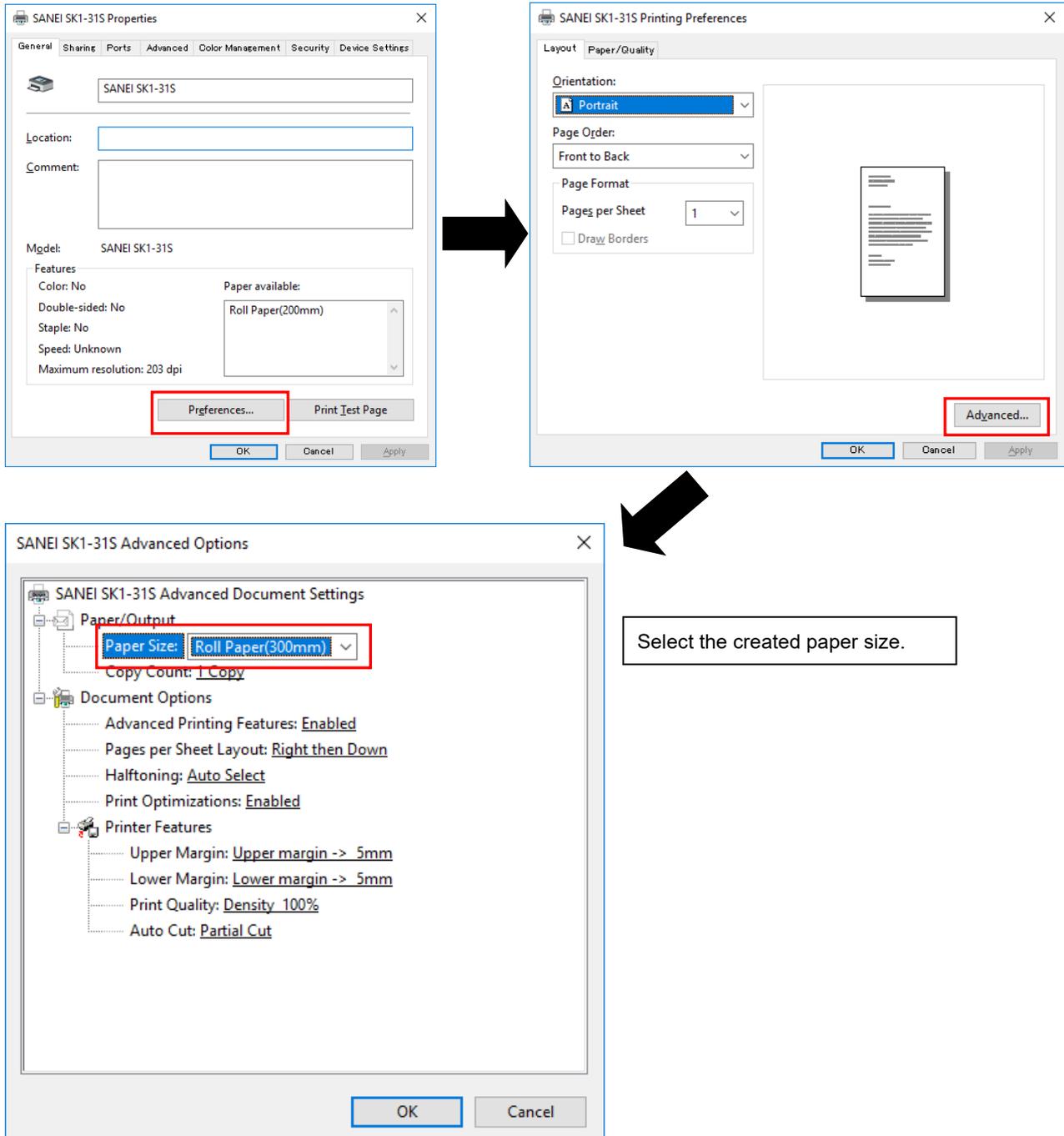


5-2. How to set the paper size

Set the paper size prepared into the printer driver in accordance with the following procedure.

STEP1. Right Click the icon of target driver from the [Devices and Printers] and open the [Printer Properties].

STEP2. Open the [Preferences] → the [Advanced] from the tab of [General] in the properties and nominate the paper of created paper size.



6 . Status acquisition function

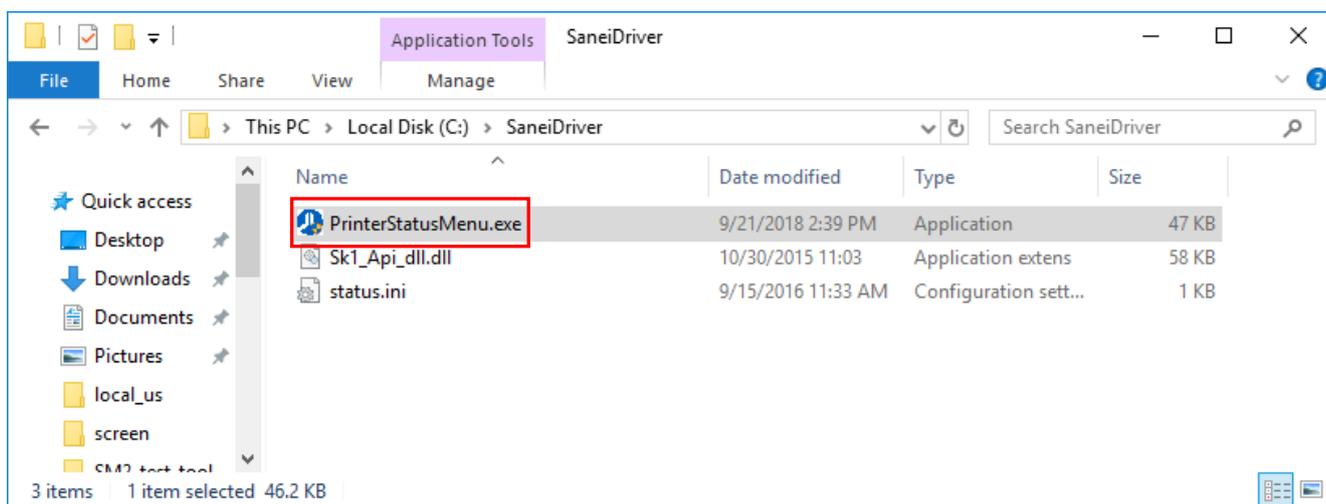
The status of printer can be obtained by registering the printer driver to the status acquisition service.

The following explanation is for how to register the printer driver to the status acquisition service and the function of application of service setting.

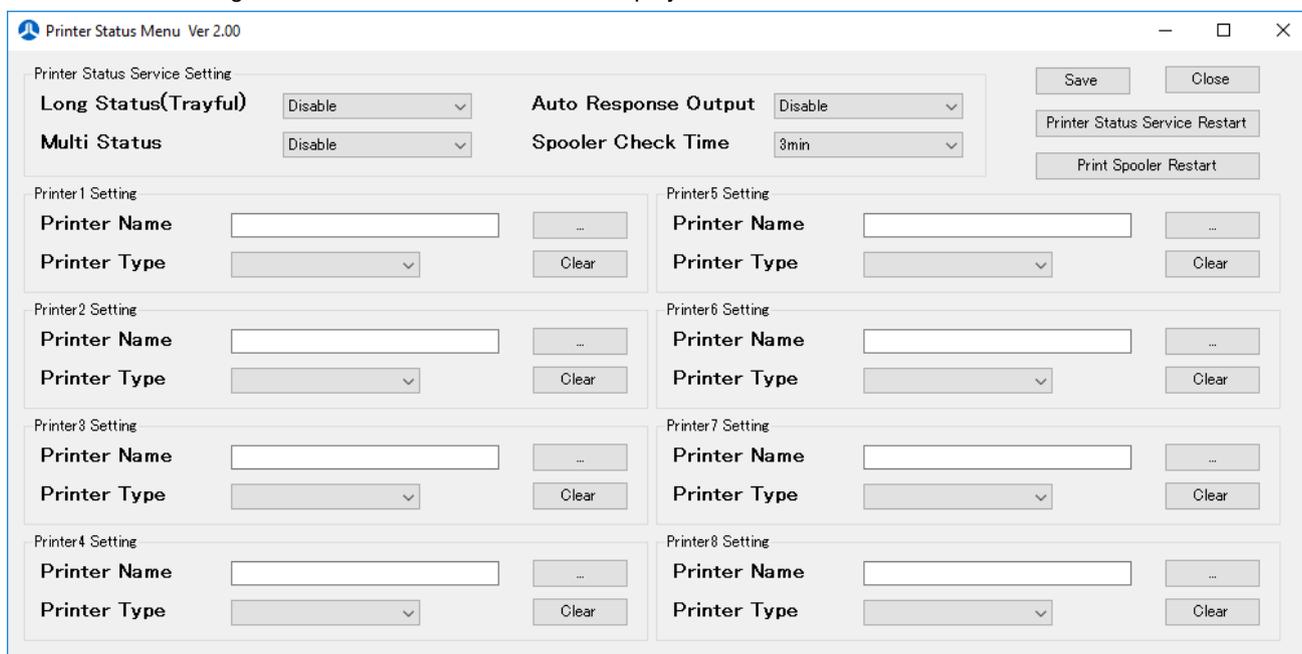
6-1. How to register the printer driver

STEP1. Execute the [PrinterStatusMenu.exe].

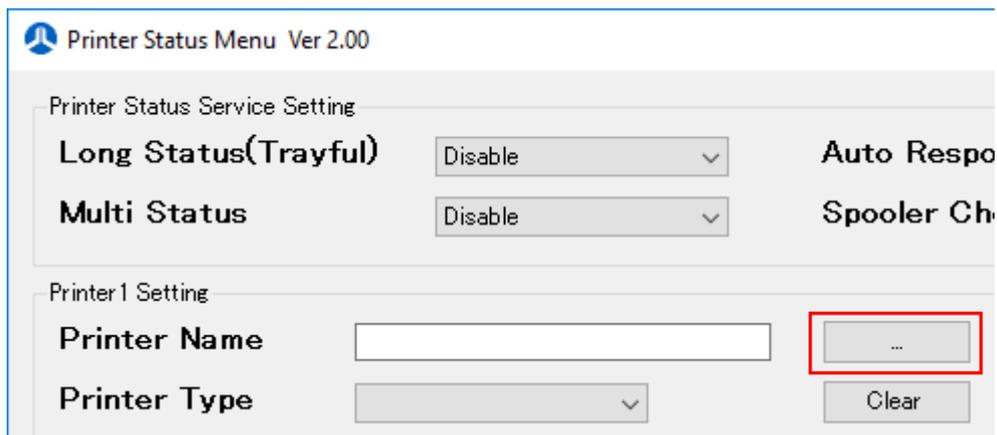
Save to : [C:¥SaneiDriver]



STEP2. The setting screen of Printer Status Menu is displayed.

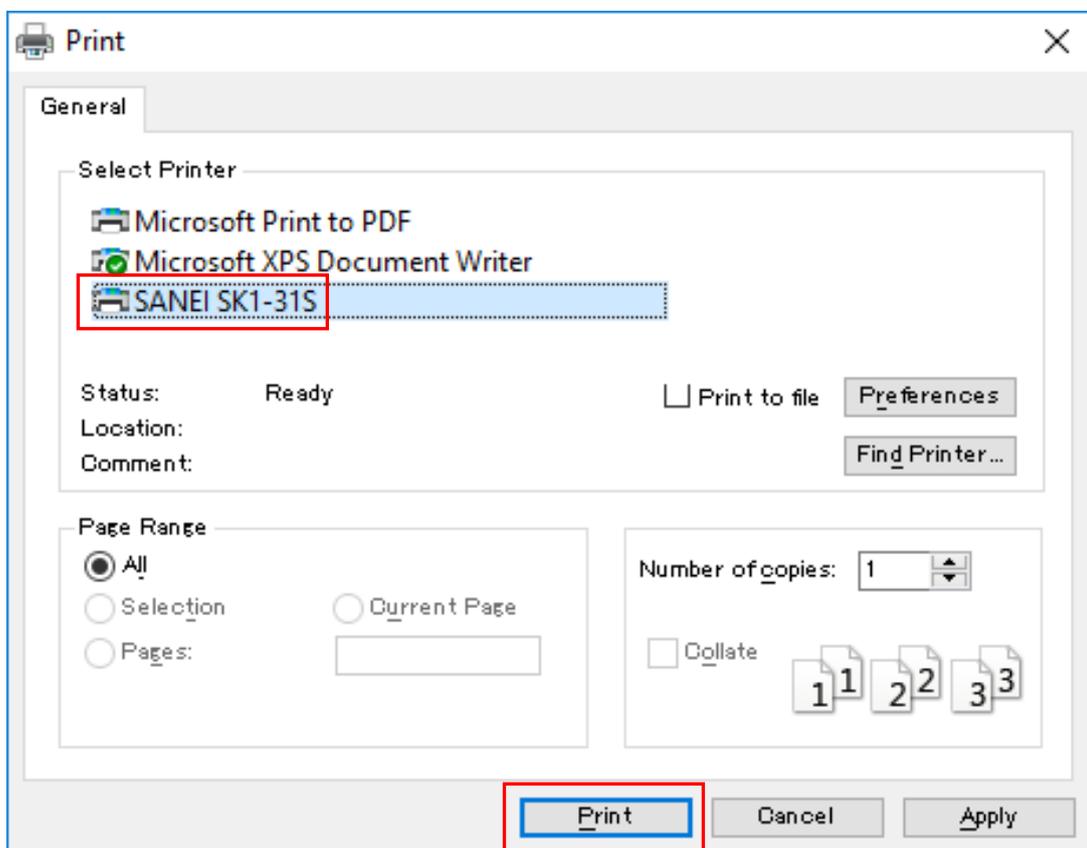


STEP3. Click the button of [...] next to Printer Name.

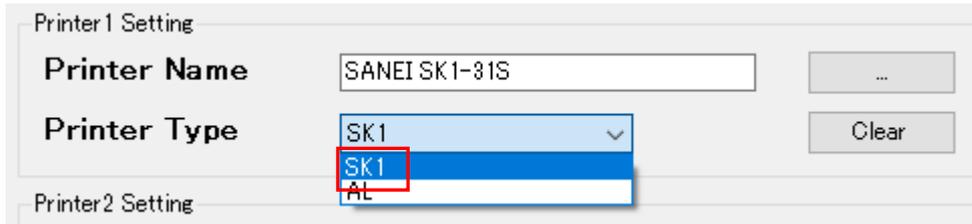


STEP4. Select the printer driver to be registered and click the [Print].

The following registration is for the printer driver of [SANEI SK1-31S] as a sample.



STEP5. Select the [Printer Type].



※The printer type may be different depending on the printer driver to be registered.

The printer models applicable to the Printer Types are as follows.

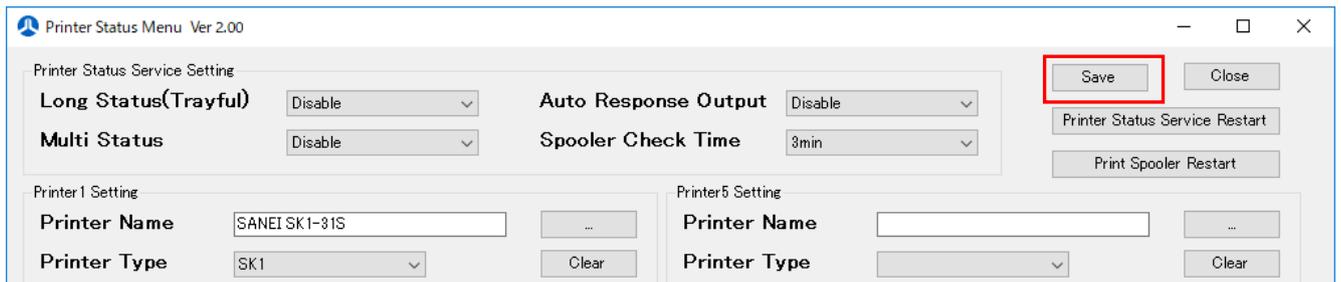
Printer Type = SK1

Models applicable : SK1 series
SK4 series
SP2-21 series
SP3-21 series

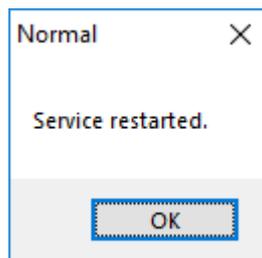
Printer Type = AL

Models applicable : BL2-58 series
SP1-21 series

STEP6. Click the [Save].



STEP7. The following dialog is indicated when the [Save] is completed.



STEP8. The registration is completed.

6-2. Setting items of Printer Status Service

In the Printer Status Menu, enable to set the function for the status acquisition of printer.

Printer Status Service Setting		Save	Close
Long Status(Trayful)	Disable	Printer Status Service Restart	
Multi Status	Disable	Print Spooler Restart	
Auto Response Output	Disable		
Spooler Check Time	3min		

① Long Status(Trayful)

This is a function to keep the paper extraction waiting condition from the presenter for 1 second.

When this function is enabled, it is easier to detect status changes even if paper is quickly pulled out from the presenter.

Enable : Enable the function .

Disable : Disable the function.

② Multi Status

This is a function to enable multiple status display of printer.

Enable : Display multiple status

Disable : Display only status with the highest priority.

③ Auto Response Output

This is a function to send a status response execution command to the printer at regular time intervals.

When this function is enabled, the status response execution command can be sent to the printer at regular time intervals.

In this case, even if the execution order of status response is missed, the status is acquired reliably because the execution order of status.

Enable : Enable the function .

Disable : Disable the function.

④ Spooler Check Time

This is a function to set the time of spooler check.

The spooler check function is to wait for a certain time until the Windows printer spooler starts up when the Printer Status Service starts.

In case the printer spooler does not start up after the setting time is elapsed, the Printer Status Service is terminated as it is.

⑤ Save

This is a function to keep the setting contents of the current Printer Status Menu.

⑥ Close

This is a function to close the indication of dialog of the Printer Status Menu.

⑦ Printer Status Service Restart

This is a function to re-start up the Printer Status Service.

⑧ Print Spooler Restart

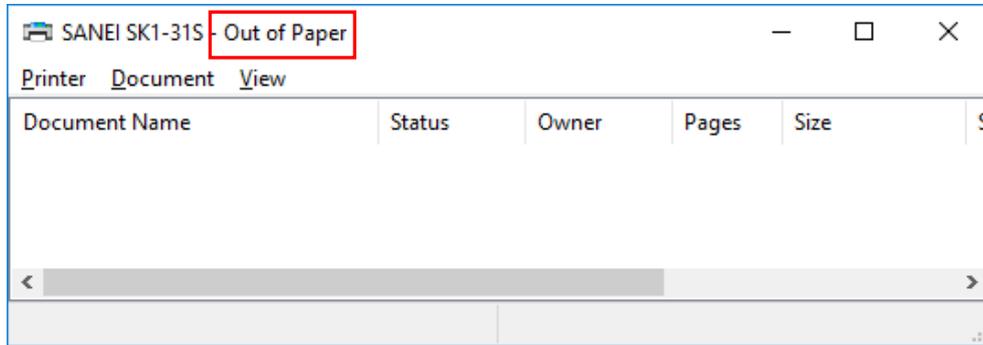
This is a function to re-start up the Print Spooler.

6-3. Status Acquisition Function

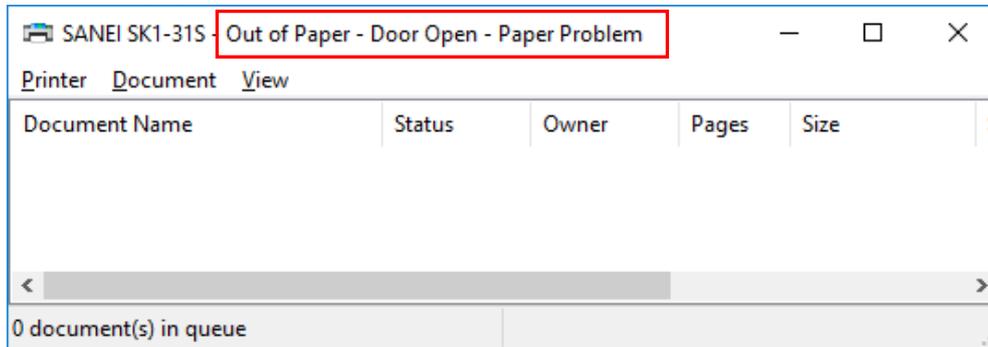
The status of printer can be confirmed on the screen of printing job of driver.

The contents of error status to be displayed are different depending on printer models.

Error status display example



Example of displaying multiple error statuses



The contents of status to be displayed are as follows.

Error status	Display (message)
No error	No display
Power OFF, No cable is connect	Use Printer Offline
Paper end	Out of paper
Door open	Door Open
Near end	Paper Problem
Paper in presenter	Output bin full
Paper course out	Paper Jam
Voltage error, thermal error, Cutter error	User Intervention Required *1 or Attention Required *2

*1 For Windows7,8

*2 For Windows10

6-4. Error status and the way to remove the error

Status of printer error and the way to remove the errors are described as follows:

Error status	Messages	How to remove the errors
No error	No display	
Power OFF, No cable is connect	Use Printer Offline	Turn ON power of printer and connect cable to it.
Paper end	Out of paper	Change the roll paper.
Door open	Door Open	Close the printer head cover.
Near end	Paper Problem	Change the roll paper.
Paper in presenter (Bezel)	Output bin full	Remove the paper released from the presenter, or recover from the error by collecting the paper automatically after a few seconds.
Paper Jam	Paper Jam	Open the printer head or presenter, and remove the jammed paper.
Temperature Error	User Intervention Required *1 Attention Required *2	The printer resumes printing when the head temperature falls to 60 degrees C or lower.
Voltage Error	User Intervention Required *1 Attention Required *2	Automatically recover from the error by recovering voltage of power supply.
Cutter Error	User Intervention Required *1 Attention Required *2	Open the printer head cover and remove some dusts or rubbish which cause a trouble of cutter working, and then close the cover.

*1 For Windows7,8

*2 For Windows10

6-5. Status API

The printer status is obtained by using "GetPrinter" function of Win32API.

For further information, please refer to the below URL.

URL: <http://msdn.microsoft.com/en-us/library/windows/desktop/dd144911%28v=vs.85%29.aspx>

BOOL GetPrinter

(HANDLE hPrinter, DWORD Level, LPBYTE pPrinter, DWORD cbBuf, LPDWORD pcbNeeded)

[parameter]

HANDLE hPrinter: Printer handle
DWORD Level: A structure stored to a buffer, which pointed by pPrinter.
LPBYTE pPrinter: A pointer to buffer which receive information about printer.
DWORD cbBuf: Set a size of buffer pointed by pPrinter per "byte".
LPDWORD pcbNeeded: A pointer to a variable receiving a size of printer's information.

[printer status]

The information of printer status received by pPrinter is as follows:

PRINTER_STATUS_PAPER_OUT : out of paper
PRINTER_STATUS_DOOR_OPEN : paper cover is opened.
PRINTER_STATUS_PAPER_PROBLEM : Near end
PRINTER_STATUS_USER_INTERVENTION: Voltage error, thermal error, Cutter error.
PRINTER_STATUS_OUTPUT_BIN_FULL : Paper in presenter or bezel unit
PRINTER_STATUS_PAPER_JAM : paper course out/JAM (presenter or bezel unit)
Other values : online(No error)

[Return]

"0": if function is failed. "other digit" means success.

6-6. Printer error list and response priorities

As the default,if the printer error has multiple occurrences, responds to only upper level of error in accordance with the following order of precedence.

Priority	Printer errors	code
1	Voltage error, Cutter error.	100000
2	paper course out/JAM (presenter or bezel unit)	8
3	paper cover is opened.	400000
4	out of paper	10
5	Paper in presenter or bezel unit	800
6	Near end	40
7	thermal error,	100000
8	No error	0

7 . Revision records

Ver No.	Date of revision	Details
Ver 1.01	MAY/2015	New creation
Ver.1.02	Nov/2016	Additionally Corresponding to Windows10.
Ver 2.00	Apr/2018	Overall update of driver
		Added function to acquisite the status from Windows' services.
		Support for installing by executable file
Ver 2.01	Oct/2018	Update status service to latest version
		Simplified removal of drivers
Ver 2.01	Mar/2022	Additionally Corresponding to Windows11.