

# PCL LP 100R Printer Driver Manual

For printer model:

# LP 100R Laser



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# **Before You Start**

A printer driver is a software that sends data created on a computer (documents and illustrations) to the printer using native printer language commands. The LP 100R Printer Driver Manual (hereinafter, "this manual") describes how to obtain and install the printer driver for the LP 100R (hereinafter, "the product"). The manual also explains how to configure various settings after installing the printer driver and how to uninstall and update the printer driver.

#### Printer Driver Screenshots Used in This Manual

This manual mainly uses screenshots of the printer driver for the product captured on Windows 10. Therefore, the screen layout may differ depending on the OS that you are using.

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# About the SATO PCL LP 100R Driver

Created for the SATO LP 100R laser printer, this is a Microsoft Windows 8 and above-certified Type 3 (GDI) PCL printer driver. The driver is suited for both 32 and 64-bit Windows Operating Systems.

A replacement for the predecessor SATO PCL driver, the SATO PCL LP 100R driver with the improved interface, allows the Printer Preferences critical settings; Form size, Resolution, and Orientation to be configured directly from the print dialog of the Windows application. See more details at <u>Manage Printer</u> settings (pg 17).



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SATO also offers a Type 4 (XPS). The <u>differences and advantages</u> of each type of driver is discussed at the end of this manual. The identification and <u>management of drivers</u> in general is clarified in the next section.

#### Manage the Driver

The printer type and version can be found in the Windows Print Management utility. From the detailed view of Print Management (located in Control Panel\System and Security\Administrative Tools), you can view the details and manage the printer driver.

🕞 Print Management								- 0	Х
File Action View Hel	p								
🗢 🄿 🖄 📰 🗙 🗟	2								
	river Name	Environment	Driver Version	Driver Isolation	Provider	Print Processor	^	Actions	
> 📝 Custom Filters	Microsoft Print To PDF	Windows x64	10.0.19041.1	None	Microsoft	winprint		Drivers	
<ul> <li>Print Servers</li> <li>CLT-PDEV-007 (Ic</li> </ul>	Microsoft Shared Fax Driver	Windows x64	10.0.19041.117	None	Microsoft	winprint		More Actio	
	Microsoft XPS Document Writer v4	Windows x64	10.0.19041.1	None	Microsoft	winprint			
	SATO LP100R	Windows x64	7.4.10.11816	None	NiceLabel	winprint		SATO PCL LP100	R 🔺
Forms Ports	SATO LP100R 240dpi	Windows x64	5.3.3.7327	None	NiceLabel	winprint		More Actio.	>
Printers	SATO LP100R 300dpi	Windows x64	5.3.3.7327	None	NiceLabel	winprint			
Deployed Printers	SATO LP100R 400dpi	Windows x64	5.3.3.7327	None	NiceLabel	winprint			
	SATO PCL	Windows x64	0.0.0.8	None	SATO PCL Printer Driver	winprint			
	SATO PCL LP100R	Windows x64	1.0.0.14	None	SATO	SATPRINT			
	SATO PCL LP100R V4	Windows x64	12.57.46.754	None	SATO	winprint			
	Send to Microsoft OneNote 16 Driver	Windows x64	16.0.1626.4000	None	Microsoft	winprint			
	Snagit 18 Printer	Windows x64		None			~		
< >	<					2			
							_	,	

朣 Print Management							- 🗆 X
File Action View Help							
🗢 🄿 🖄 🛅 🗶 🗟							
🔚 Print Management	Printer Name	Queue Status	Jobs In	Driver Name	Driver Type	Driver ^	Actions
> 🔂 Custom Filters	📾 SATO PCL (at external IP)	Ready	0	SATO PCL	Type 3 - User Mode	0.0.0.8	Printers 🔺
Print Servers	📾 SATO PCL (win 7)to file	Ready	0	SATO PCL	Type 3 - User Mode	0.0.0.8	More Actio
CLT-PDEV-007 (Ic	📾 SATO PCL @ 192.168.3.140 ( LPR)	Ready	0	SATO PCL	Type 3 - User Mode	0.0.0.8	
Forms	SATO PCL LP100R	Ready		SATO PCL LP100R	Type 3 - User Mode	1.0.0.1	SATO PCL LP100R
Ports	SATO PCL LP100R	Ready	0	SATO PCL LP100R V4	Type 4 - User Mode	12.57.4	More Actio
	🖶 SATO PCL_type3_ Romoe85	Ready	0	SATO PCL	Type 3 - User Mode	0.0.0.8	
	📾 Send To OneNote 16	Ready	0	Send to Microsoft OneNote 16 Dri	Type 4 - User Mode	16.0.1( 🗸	
	<					>	

You can also view and manage the properties of the drivers, the forms, the ports and the printer instances from the print management console

#### **Printer Driver Installation**

#### Where to find the driver

The LP 100R Driver, along with the latest SATO-Logic controller software, is available on the SATO America website: <u>https://www.satoamerica.com/resources/software/laser-driver-and-software</u>

#### Installing the LP 100R Driver

The driver is distributed as an executable, which will extract and launch the installer. Locate and launch the "SATO PCL LP 100R driver setup-x.x.x. exe" file to begin the Windows driver installation.

You should use this procedure to update the existing instance of the driver with a later version.

NOTE: Do not use with "Add a printer" option unless you have added the driver files separately.

You will need to have the printer on your network and know the IP address of the LP 100R printer before beginning the driver setup.

Launch the installer with administrator rights. When the Setup Wizard launches, follow the prompts in the appropriate dialog box:



When first installing or <u>during an upgrade</u> (after the previous version has been removed), you will see a dialog box to select the model. Choose the SATO PCL LP 100R on the list. Select **Next >** to continue.

Printer Driver Installer	×
Printer Installation	
Please select the printer that you will be using:	
Model:	
SATO PCL LP 100R	
Ν	
< Back Next >	Exit

You will need to define the data communication connection in which the printer will receive data. You will need to know the IP address of the LP 100R printer.

SATO Printer Driver Installer	×
Printer Installation	
Please select the connection that you will be using:	
Port:	
192.168.3.140	
Port Number: 9100	
Port Number: 9100	
Add Network Port	
<back next=""> Exit</back>	

If the printer is set to an IP, powered up and connected, Select the IP from the drop-down and choose **Next >** to continue.

If the connection has not been defined, you can select Add Network Port....

If you are adding an <u>LPR port</u>, Create a new port, and then after the printer installation is complete, go to the port settings in the printer properties and define the LPR port.

To add a network connection, enter the IP address, and follow the prompt.

SATO Printer Driver Installer	$\times$
Printer Installation	
Please enter the required IP address in the form xxx.xxx.xxx.xxx (e.g. 192.168.1.254):	
192.168.3.140	
<back next="">Exit</back>	

After adding a network port, you will be returned to the dialog box to select the printer's connection.

Select the connection and continue by selecting Next >.

SATO Printer Driver Installer	$\times$
Printer Installation	
Please select the connection that you will be using:	
Port:	
192.168.3.140	
Port Number: 9100	
Port Number: 9100	
Add Network Port	
<back next=""> Exit</back>	

You will receive confirmation the printer is about to be installed.

N	×
Printer Installation	
INSTALLATION	
The printer is about to be installed. Select Next > to proceed	
<back next=""> Exit</back>	

Select next to continue.

The progress bar will indicate the installation progress.



When complete select exit.

SATO Printer Driver Installer	$\times$
Printer Installation Complete	
INSTALLATION SUCCESSFUL	
The selected printer has been installed	
2	
< Back Next > Exit	

Congratulations! You have now successfully installed the SATO PCL LP 100R v3 Printer Driver and may now use it to print from Windows applications.

Open the printer in Printers and Devices.

A <u>test print</u> to confirm can be sent from the General tab of the Printer Properties.

You can travel to <u>Devices and Printers</u> to view the newly installed printer's settings.

# Manage or add a port.

Use the port settings in Print Server Properties to manage the port settings.

Ę	Print Serve	er Properties			×
F	orms Ports	Drivers Security	Advanced		
		CLT-PDEV-007			
	Ports on thi	is server		<i>w</i>	
	Port	Description	Printer		^
	LPT1:	Printer Port	Microsoft (	OpenXPS Class Drive.	
	LPT2:	Printer Port			
	LPT3:	Printer Port			
	COM1:	Serial Port			
	COM2:	Serial Port			
	COM3:	Serial Port			
	COM4:	Serial Port			
	FILE:	Print to File	SATO PCL L	P100R V4, SATO PC	× .
5	Add	I Port	Delete Port	Configure Port	
	1 an				
	- Ch	ange Port Settings			
			01/	0	A 1
			ОК	Cancel	Apply

To add a port, select the **Add Port** button.

Select Standard TCP/IP port and New Port ... button.

Printer Ports		×
Available port types:		
Adobe PDF Port Monitor HP Universal Print Monitor Local Port		
Standard TCP/IP Port		
	2	
New Port Type	New Port	Cancel

This will launch the Add Standard TCPIP Printer Port wizard.

Add Standard TCP/IP Printer Po	rt Wizard
	Welcome to the Add Standard TCP/IP Printer Port Wizard
	This wizard helps you add a port for a network printer.
	Before continuing be sure that: 1. The device is turned on. 2. The network is connected and configured.
	Tourism Films
	To continue, click Next.
	< Back Next > Cancel

Follow the wizard entering the IP address. You may edit Port Name to reflect something more meaningful.

Add Standard TCP/IP Printer Port Wizar	d			
Add port For which device do you want to ad	d a port?			
Enter the Printer Name or IP add	dress, and a port name	e for the desire	d device.	
Printer Name or IP Address:	192.168.3.140			]
Port Name:	192.168.3.140_3			]
			6	
		< Back	Next >	Cancel

Be sure the printer IP is configured, powered up, and connected. Select **Next >** to continue

Select Finish to complete the add port wizard.

Add Standard TCP/IP Printer Port	Wizard			
	Completing the Add Standard TCP/IP Printer Port Wizard			
	You have selected a port with the following characteristics.			
	SNMP:	No		
	Protocol:	RAW, Port 9100		
	Device:	192.168.3.140		
	Port Name:	192.168.3.140_3		
	Adapter Type:	Generic Network Card		
		$\triangleright$		
	To complete this wizard,	click Finish.		
		< Back Finish Cancel		

#### LPR Port

The LP 100R can act as a print server and receive many pages ahead of printing. When you wish to send data through an LPR or CUPS connection, you will need to configure the Port to LPR.

From the Ports tab of Printer Server Properties, highlight the port and select Configure Port

🖶 Print Server Properties			×
Forms Ports Drivers Se	ecurity Advanced		
CLT-PDEV-007	,		
Ports on this server			
Port	Description	Printer ^	
192.168.3.140_2 192.168.3.140_raw	Standard TCP/IP Port Standard TCP/IP Port		
external IP	Standard TCP/IP Port	Generic / Text Only on	
IP_192.168.1.206	Standard TCP/IP Port	Brother PC-FAX v.3.1	
romeoville srv tst .83	Standard TCP/IP Port		
192.168.3.140_3	Standard TCP/IP Port		
PORTPROMPT:	Local Port	Microsoft XPS Docum	
< Add Port	Delete Port	Configure Port	
😌 Change Port Set	tings	*0	
	Close	Cancel Apply	

To create a Printer server queue, change the protocol to LPR, enter a Queue name, and enable LPR Byte counting. The LP 100R queue name default is LIS\_SATO. The IP address and the queue name must match in both the printer and the driver. The LPR queue name within the physical LP 100R printer may be defined through the communications setting menu at the printer.

onfigure Standard TCP/IP P	ort Monito	or
ort Settings		
Port Name:		192.168.3.140_2
Printer Name or IP Addres	s:	192.168.3.140
Protocol		() LPR
Raw Settings		
Port Number:	9100	
LPR Settings Queue Name:	LIS_SAT	OT
LPR Byte Counting E	nabled	
SNMP Status Enable	Н	
Community Name:	public	
SNMP Device Index:	1	

# **Test Page**

Once the driver settings and communications connections are configured, a test page can be sent to confirm the settings are correct. To print a test page, go to the General tab of the Printer properties.

	5			dvanced Docume		
General	Sharing	Ports	Advanced	Color Management	Security	Advanced
~						
5		SATO P	CL LP100R			
Locatio	on:					
	L					
Comm	ient:					
	L					
Model	:	SATO PO	L LP100R			
Featu	ires					
Colo	or: No			Paper availabl	e:	
	ble-sideo	l: No				~
Dou						
	le: No					
Stap		pm				
Stap Spee	ed: 100 p		: 600 dni			~
Stap Spee	ed: 100 p		: 600 dpi			Ŷ
Stap Spee	ed: 100 p			eferencer	Drint	Test Dage
Stap Spee	ed: 100 p			eferences	Print	v Test Page
Stap Spee	ed: 100 p			eferences	Print	Test Page

When printing a test page from the driver, be sure the LP 100R Printer is set to PCL emulation in the active configuration. Refer to <u>Printer Settings</u> (page 35) for more details.

SATO PCL LP1	00R Pr	operties A	dvanced Docume	ent Prope	rties ×
General Sharing	Ports	Advanced	Color Management	Security	Advanced
\$	SATO PO	CL LP100R			
Location:	SAT	O PCL LP10	DOR		×
Comment:	A	This tes to print informa trouble	graphics and text, ation about the pri	onstrates f and it pro nter. Use t	the printer's ability ovides technical
Color: No Double-sided:	r				Close
Staple: No Speed: 100 pp Maximum res		: 600 dpi			~
		Pr	eferences	Print	Test Page

# Upgrading the LP 100R Driver

To upgrade an existing instance of the driver, you must remove the existing instance. The driver installer will guide you through this process.

<u>Launch the installer package</u> as if you were installing the driver. If an existing installation is found, you will receive a prompt to uninstall or install a copy. To upgrade, you must first uninstall the current driver. You will have restart Windows after the removal. After uninstalling the current driver and restarting Windows, you can relaunch the installer and install the upgraded version driver.

#### Select Uninstall and Next. >.



You will be prompted to disconnect the printer, be sure all the jobs are completed and select Next.



After removing the driver, a restart is required.

After restarting windows, launch the installer again to install the upgraded version.

## Manually Remove the Driver

You may also remove the driver through the Drivers tab of the Print Server Properties.

orms Ports Drivers Secu	urity Advanced		
	any naranoou		
CLT-PDEV-007			
Installed printer drivers:			
Name	Processor	Туре	^
Microsoft OpenXPS Clas	. x64	Type 4 - User Mode	
Microsoft Print To PDF	x64	Type 4 - User Mode	
Microsoft XPS Documen.	x64	Type 4 - User Mode	
SATO LP100R	x64	Type 3 - User Mode	
SATO LP100R 240dpi	x64	Type 3 - User Mode	
SATO LP100R 300dpi	x64	Type 3 - User Mode	
SATO LP100R 400dpi	x64	Type 3 - User Mode	
SATO PCL	x64	Type 3 - User Mode	
SATO PCL LP100R	x64	Type 3 - User Mode	
SATO PCL LP100R V4	x64	Type 4 - User Mode	
Send to Microsoft OneN.	. x64	Type 4 - User Mode	
Snagit 18 Printer	x64	Type 3 - User Mode	
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			-2
Add	Remove.	Properties	
😌 Change Driver Setti	ings		

When removing to upgrade to a new version, remove the driver and the driver package.

Remove Driver And Package			
Do you want to remove the driver(s) only, or remove the driver(s) and driver package(s) from your system?			
○ Remove driver only.			
Remove driver and driver Ckage.			
OK Cancel			

Once removed, relaunch the driver installer to continue with the installation of the upgrade.

# Using the LP 100R Driver

#### **Information Panel**

After the driver has been <u>installed</u>, you can see and manage the jobs submitted for printing by selecting <u>See What's Printing</u> from the information panel of the driver. To launch the information panel, go to **Devices and Printers** and double click on the SATO PCL LP 100R printer driver.



When you double click the driver icon, the information panel will be displayed.

Control Panel\Hardware and Sound\Devices and Printers\SATC	PCL LP100R − □ X
$\leftarrow$ $\rightarrow$ $\checkmark$ $\bigstar$ Hardware and Sound $\Rightarrow$ Devices and Printers	> SATO PCL LP100R v さ
File Edit View Tools	
SATO PCL LP100R	
Display Printer Preferences Alter printer settings	See what's printing View, pause, or cancel your print jobs
Contact Contact us	Customize your printer Change the name, security settings, or other properties

You can also manage the settings or the jobs from Printer and Scanners in Settings. When you select a printer in the list, you will be presented with Open Queue, Manage or Remove Device options.

← Settings	X
G Home Find a setting	Printers & scanners
Devices	SATO PCL @ 192.168.3.140 ( LPR)
- Bluetooth & other devices	SATO PCL LP100R
Printers & scanners	Open queue Manage Remove device
m Maura	

# **Managing Printer Settings**

There are two panels to manage the settings of the driver: <u>Printer Preferences</u> and <u>Printer Properties</u>. Depending on the Windows application being used to print to the LP 100R, these setting groups work differently. Later Windows applications can interact with the Printer Preferences settings and change the driver settings from the print window within the application. In earlier applications, you may need to open and adjust Printer Preferences separately prior to printing to manage the settings.

#### **Displaying Printer Preferences**

The Preferences panel is used to make changes related to particular print jobs.



Once the driver is installed and configured, this will be the primary panel used to change the job parameters.

SATO PCL LP100R Printing Preferences			×
Advanced Printing Shortcuts Paper/Qualit	Y Effects Finishing		
LP 100R Laser Pri	nter		
G	Page Size	17in x 11in (SATO Laser)	$\sim$
	Paper source	Continuous Feed	$\sim$
	Resolution	600 dpi	~
	Orientation	Portrait About	•
		OK Cancel	Apply

New with the SATO PCL LP 100R v3 driver, you can access the Printer Preferences of the driver from the

print dialog panel of many later Windows application by selecting Printer Properties.



You must ensure the <u>Driver Settings</u> and <u>Printer Settings</u> match to achieve the desired output. Comments about related settings as they apply to the LP 100R printer are available in the <u>SATO PCL LP 100R</u> <u>Printer Settings</u> section.

Users familiar with the previous (SATO PCL) driver will notice the settings; Page size, Paper source, Resolution, Orientation and Copies in this updated driver are all contained in the Printing Preferences. Note: These settings are only in Printer preferences.

# **Driver Version**

Select the <u>About</u> button in the <u>Printer Preferences</u> panel to see the version of the driver. The About button is useful when troubleshooting output issues to verify the correct/updated driver is being used.



# **Printer Properties**

The Printer Properties dialog box allows you to change the name, security settings, communication port, and other related properties. Select *Customize your printer* from the information panel and then choose *Printer Properties* from the Settings menu.

Control Panel/Hardware and Sound\Devices and Printers\SATO PCL LP100R X	$\leftarrow$ Settings – $\Box$ $\times$
← → · ↑ ■ « Devices and → SATO PCL LP100R · v ♂	
File Edit View Tools SATO PCL LP100R SATO CL LP100R CONTROL Of Con	☆ SATO PCL LP100R Manage your device
	Printer status: Idle
	Open print queue Set as default $\$
Display Printer Preferences Alter printer settings	Print a test page
See what's printing	Run the troubleshooter
View, pause, or cancel your print jobs	Printer properties
Contact Contact us	Printing preferences
Customize your printer Change the name, security settings, or other properties	Hardware properties
	Get help

Click the tabs in the Properties window to make changes to the applicable parameters.

🖶 SATO PCL	LP100R Pr	operties A	dvanced Docume	nt Prope	rties	×
General Sharir	ng Ports	Advanced	Color Management	Security	Advanced	
\$ ₽	SATO PO	CL LP100R				
Location:						
Comment:						
Model:	SATO PC	L LP100R				
Features Color: No			Paper availabl	e:		
Double-sid Staple: No Speed: 100					^	
	resolution	: 600 dpi			~	
		Pr	eferences	Print	Test Page	
			ОК	Cancel	Appl	y

Refer to the Customize the LP 100R Printer Driver section (page 31) for more detail.

# See What's Printing

The status and jobs sent to your printer can be viewed and managed in the Windows spooler. There are a few ways to open or view the spooler for the SATO PCL LP 100R Printer Driver.

Double click on the printer to open the information panel and from the information panel, select **See What's Printing.** 



From the settings panel, you can select an *Open print queue* from the Settings window to display the list of print jobs spooled to the printer.

← Settings	
$\leftarrow \rightarrow \lor \uparrow \overline{\mathfrak{A}} \ll Ha \rightarrow De \rightarrow \lor \breve{\mathfrak{O}}$	ρ
Printers & scanners	
Add a device Add a printer See what's printing »	?
300dpi 400dpi external IP) 7)to file	^
Open queue Manage Remove device	
SATO PCL @ SATO PCL_type3_ SATO PCL_LP1 Open	
SATO PCL LP100R V4 192.168.3.140 ( Romoe85 Open in new win	ow
See what's printi	
SATO PCL type2 Romee 95 Model: SATO	
SATO FCC_types_ Kontoe_to F Printing preferen Printing preferen Printer properties	es

From the Devices and Printers, highlight the printer and right-click, or select the "See what's printing".

#### Mange Printer Status and Jobs

From the spooler view, you can see and manage the status of the printer and the jobs in the Queue. You can control the jobs individually or as a pool.

The spooler shows the jobs queued to be processed. The printer menu in the spooler will give the options to pause printing or cancel all jobs. The Document menu or Right-click on a job, and you will be presented with options to Pause, Restart, or Cancel the job.

SATO PCL LP100R - Paused  $\times$ Printer Document View Document Name Status 0w... Pages Size Submitted 7:09:00 AM 8/31/20/ 💼 Test Page 1 5.98 MB kevi... 5 Pause Restart Cancel Properties < > 1 document(s) in queue

From the Printer Menu, pause or restart the jobs or cancel them all.

Print Queue Example and Applicable Actions

# Matching the Driver and Printer settings

The physical printer settings, found in the active configuration, <u>must</u> match the parameters of the printer driver for the intended job sent to the printer. These settings include form size, orientation, and resolution. Should any of these settings be mismatched between the printer settings and the driver, the resulting output may be too small or too large, clipped, or out of registration from page to page. In the printer, use the <u>Configuration Menu</u> (refer to the user manual for the LP10R) to configure the printer to be prepared to receive output from the driver. Use the <u>Printer Preferences</u> panel to set these values for the driver.

#### Emulation

The printer must be using the PCL Emulation when receiving files from the driver. If this is incorrect, you may observe the printer hang-up requiring a reboot, or no output will be generated.

Advanced Printing Shortcuts Paper/Quality			<
LP 100R Laser Prin	ter Page Size Paper source Resolution Orientation	17in x 11in (SATO Laser)   Continuous Feed   600 dpi   Portrait	
		About OK Cancel Apply	

#### Paper Source

The Paper Source will always be set to Continuous when sending to a SATO LP 100R.

#### Orientation

There are four options for Orientation; Portrait or Landscape, Reverse Portrait, or Reverse Landscape. You can select the Orientation in the Paper / Quality, Printing Shortcuts, or Finishing tabs.

Advanced Printing Shotouts (Peper/Quality LP 100R Laser Print			×
	Page Size Paper source Resolution	17in x 11in (SATO Laser) Continuous Feed 600 dpi	>
	Orientation	Portrait	
		About	Apply

#### Resolution

The resolution is selected from 600,480, 400, 300, or 240 Dots per Inch (DPI). This selection can be made from the Paper / Quality or Printing shortcuts Tab

ATO PCL LP100R Printing Preferences			×
Advance: Printing Shortox Paper/Quality			
	Page Size Paper source	17in x 11in (SATO Laser) ~ Continuous Feed ~	
	Orientation	600 dpi 600 dpi 240 dpi 400 dpi 400 dpi 400 dpi 400 dpi 400 dpi	
		OK Cancel Apply	

#### Paper Size

The Paper size must match the form size selected on the printer. You can select the Paper size from a drop-down in either the Printing Shortcuts or Paper/ Quality tabs. If the form size you need is not in the drop-down list, you can add a new <u>form definition</u> at the <u>Print Server Properties</u>.

Note: When selecting or defining paper sizes, be sure they are within the dimensions of the printer; max 17 wide and 24 " high.

#### Page Size

The page size is a dynamic drop-down based on all the forms defined on the Windows Print Server (workstation).

Many standard forms sizes are included in the installation of the Windows driver, including several wide forms (beyond the traditional 11" width). These will provide some possible form sizes for testing or an initial start to create a new one based on these sizes by modifying one of your own.

Included with the form definition of width and height are the margins. Margins will reduce the print size. e.g., an 11" wide page defined with a 0.5" margin on either side will effectively be a 10" print width. Because the print size is critical to the LP 100R, SATO recommends using 0.00" margins so the page size and print size will be the same. You can view the margins defined by viewing the form definitions in the Forms tab of the Print Server Properties. To check and modify the sizes and margins, refer to the <u>Custom Form Sizes</u> section found on page 27.

🖶 Print Ser	ver Properti	es				×
Forms Port	s Drivers	Security	Advanced			
Forms on:	CLT-P	DEV-007				
	in (SATO La: n (SATO Las				^	Delete
16in x 12i	n (SATO Las	er)				Save Form
16in x 13i	n (SATO Las	er)			¥	Save Form
Form nan	ne: 1	7in x 11in (S	SATO Lase	r)		****
Create	a new form					- N - I
	iew form by nents. Then			name and		1
						A
-Form de	scription (m	easuremen	ts)			
Units:	$\bigcirc$	<b>letric</b>	● Er	nglish		
Paper siz	:e:	Printe	r area ma	rgins:		
Width:	17.00ii	n Left:	0	.00in	Тор:	0.00in
Height:	11.00ii	n Right	0	.00in	Bottom:	0.00in
🔷 🗘 Cł	nange Form	Settings				
			(	Close	Cancel	Apply

If the page size defined in the printer is not listed, then you must add it to the print server. See the <u>Custom Form Sizes</u> section (page 30) to define and add new form sizes.

# Saving and Reusing Printing Preference Settings

The Printing Shortcuts tab of Printing Preferences, allows you to define for later single click reuse the definitions for; the Page Size, Resolution, Orientation and number of pages per sheet.

To reuse a defined collection, open the Printer Preferences from the Print dialog box of the application navigate to the Printing Shortcuts tab, select the defined shortcuts by the name you gave it and select OK.

To define a Printing Shortcut for future use, from the Printing Shortcuts tab of printer preferences, set the parameters page size, resolution, orientation, etc., and select Save As. At the prompt, enter a unique name of the shortcut and press OK. To immediately use that shortcut, select and depress OK.

ATO PCL LP100R Printing Preferences	×
Advanced Printing Shortcuts Paper/Quality Effects Fin	ishing
A printing shortcut is a collection of saved print settings that with a single click.	you can select
Printing shortcuts:	
General Reryday Printing	
Factory Defaults	Page Size
	17in x 11in (SATO Laser) $$
	Paper source
	Continuous Feed $\sim$
	Resolution
	600 dpi ~
	Orientation
	Portrait ~
	Pages per sheet
	1 page per sheet $\checkmark$
Save As Delete Reset	
	About
	OK Cancel Apply

# Custom Form Sizes

The SATO PCL LP 100R V3 driver will install several common form sizes applicable to the wide web laser. If these default sizes do not work for the forms you are printing, you can create custom form sizes to define the specifics of your forms. These default sizes include the following:

15 in x 8.5 in (SATO Laser) 15.5 in x 13 in (SATO Laser) 16 in x 11 in (SATO Laser) 16 in x 12 in (SATO Laser) 17 in x 11 in (SATO Laser)

🖶 Print Server	Properties			×
Forms Ports	Drivers Security	Advanced		
Eorms on:	CLT-PDEV-007			
17in x 11in (S			^	<u>D</u> elete
17w x 12h (SA 17w x 22h (SA				
17w x 24h (SA			¥	<u>S</u> ave Form
Form <u>n</u> ame:	17w x 12h (S	ATO Laser)		
<u>C</u> reate a n	ew form		2	
	form by editing the	-	d	
measurement	ts. Then click Save F	orm.		
-Form descrip	otion (measuremen	ts)		
Units:	○ <u>M</u> etric	• <u>E</u> nglish		
Paper size:	Printe	r area margins:		
<u>W</u> idth:	17.00in <u>L</u> eft:	0.00in	<u>Т</u> ор:	0.00in
Height:	12.00in <u>R</u> ight:	0.00in	Bottom:	0.00in
		L		
Chang	ge Form Settings			
		ОК	Cancel	<u>A</u> pply

#### Manage Custom Forms

To add or revise a custom form.

From the Windows Control Panel, select Hardware and Sound\Devices and Printers to view the installed printer drivers.



Select the Print Server Properties and then select the Forms tab

orms Ports	Univers 3	ecunty Adv	anced		
Forms on:	CLT-PDE	V-007			
10×11 10×14				^	Delete
10x15cm					Save Form
11 x 17				*	Save rorm
Form name:	10×	11			
Create a	new form				
		litin e tit a ani	-ti		
Define a nev	v form by ed		sting name ar	ıd	
	v form by ed			ıd	
Define a nev measureme	v form by ed	ck Save Forn		ıd	
Define a nev measureme	v form by ed nts. Then cli	ck Save Forn surements)		:d	
Define a nev measuremer	v form by ed nts. Then cli <b>iption (mea</b>	ck Save Form surements) xic	n.	ıd	
Define a new measurement Form descri Units:	v form by ed nts. Then cli <b>iption (mea</b>	ck Save Form surements) xic	• English	rd	0.00in
Define a new measurement Form descr Units: Paper size:	v form by ed nts. Then cli iption (mea O Met	ck Save Form surements)- ric Printer are	<ul> <li>English</li> <li>ea margins:</li> </ul>		0.00in 0.00in
Define a new measurement Form descr Units: Paper size: Width:	v form by ed nts. Then cli iption (mea O Met	ck Save Form surements) ric Printer are Left:	English ea margins: 0.00in	Top:	

From this list, you can browse through all the forms defined on the work station/print server where the printer is defined.

#### Modify a Form Definition

To modify the form definition, select **Change Form Settings**. Then select a form from the list, and the form description (measurements) will be highlighted. *Note: If the measures are not highlighted, then that form definition is standard within windows and not editable. You will need to create a <u>New Custom Form</u>.* 

🚽 Print	Server	Properti	25			N	
Forms	Ports	Drivers	Security	Advanced		3	
Forms	on:	CLT-PI	DEV-007				
16 x 1		ATO Las	or)			^	Delete
16in x	: 12in (S	ATO Las	er)				Save Form
16in x	: 13in (S	ATO Las	er)			*	Save Form
Form	name:	10	5 x 13				
	n descrij	ption (m	click Save easureme 1etric	ents)	nglish		
Pape	er size:		Print	ter area ma	rgins:	_	
Widt	th:	16.00ir	Left	: (	).00in	Тор:	0.00in
Widt Heig		16.00ir 13.00ir		· Ľ	0.00in 0.00in	Top:   Bottom:	
Heig	ht:		Righ	· Ľ			

Then edit the measurements and select Save Form

p Prin	it server	riopera							
oms	Ports	Drivers	Security	Advar	nced				
Form	s on:	CLT-P	DEV-007						
10×1 10×1							^	Delete	
10x1	5cm ide x 8.5	hiah						Save Form	1
Form	name:	1	1 wide x	8.5 high	1				
C	reate a n	ew form							
			editing t		ting name :	and			
						and			
meas	uremen	ts. Then	editing t	e Form.		and			
meas	uremen <mark>n descri</mark>	ts. Then ption (m	editing t click Sav	e Form. <b>ents)</b>		and			٦
meas Forr Unit	uremen <mark>n descri</mark>	ts. Then ption (m	editing t click Sav easurem Aetric	e Form. <b>ents)</b> (	_	and			٦
meas Forr Unit	uremen n descri ts: er size:	ts. Then ption (m	editing t click Sav easurem Aetric Prin	e Form. ents) ( iter area	English	and	);	0.00in	
Forr Unit Pap	uremen n descri ts: er size: th:	ts. Then ption (m O N	editing t click Sav easurem Aetric Prin	e Form. ents) ( iter area t:	English     margins:	Top	o: ttom:	0.00in	
Forr Unit Pap Wid	uremen n descri ts: er size: th:	ts. Then ption (m O N 11.00ir	editing t click Sav easurem Metric Prin	e Form. ents) ( iter area t:	English     margins:     0.00in	Top			
Forr Unit Pap Wid	uremen n descri ts: er size: th:	ts. Then ption (m O N 11.00ir	editing t click Sav easurem Metric Prin	e Form. ents) ( iter area t:	English     margins:     0.00in	Top			

Close the dialog box to complete.

#### Create a New Form Definition

To add a new custom form definition, select the Create a new form checkbox. Select a form from the list which similar in the name of dimensions. Edit the name and measurements when the settings match your intent, select Save Form.

🖶 Print Server Properties			×
Forms Ports Drivers Security	Advanced		
Forms on: CLT-PDEV-007			
14w × 11h 14w ×24h		^	Delete
15 x 8.5	N		
15.5 x 13	5	~	Save Form
Form name: 15 x 8.5 (cr	ору)		
Create a new form			
Define a new form by editing t	he existing name and	d	
measurements. Then click Save			
- Form description (measurem	ents)		
Units: O Metric	English		
Paper size: Prin	ter area margins:		
Width: 15.00in Left	: 0.00in	Тор:	0.00in
Height: 8.50in Rig	ht: 0.00in	Bottom:	0.00in
	Close	Cancel	Apphy
	Close	Cancel	Apply

When the form is shown in the list, close the dialog box to complete.

#### Delete a Form Definition

You can also clean up unused custom forms by highlighting and selecting Delete. Close the dialog box to complete.

# Customizing the LP 100R Printer Driver

Select Printer Properties from the Settings window to open this panel. Below is an explanation of the various tabs and applicable parameters you can customize.

#### **General Properties**

The General tab displays the <u>Printer Preferences</u> or <u>Print a Test Page</u> button. You can also edit/specify the Printer Name, include a Location or Comment.

eneral	Sharing	Ports	Advanced	Color Management	Security	Advanced	
	Chang	, one	, aranoca	oolor Management	coounty	, aranood	
3		SATO P	CL LP100R	Edit th	e nam	e	
Locatio	on:		Include a location				
Comm	Comment: include any specific comments for the						
			-	enefit of the			
Model	:	SATO PO	L LP100R				
Featu	ires						
Colo	or: No	Paper available:					
Dou	ble-side	d: No				~	
Stap	le: No						
Spee	ed: 100 p	pm					
Max	imum re	esolution	: 600 dpi			$\sim$	
			Pr	eferences	Print	Test Page	

#### Ports Tab

The Ports tab selects the port used to communicate with the printer. Only select one port per printer instance to prevent confusion of settings matching the printer and where jobs are being sent.

8 SATO PCL LI	P100R Properties Adv	ranced 🏠cument	Properties				
eneral Sharin	g Ports Advanced	Color Managemen	nt Security	Advanced			
SA 📚	TO PCL LP100R						
Print to the fo checked port	ollowing port(s). Doc	uments will print t	o the first fr	ee			
Port	Description	Printer			^		
192.16	Standard TCP/IP Po	ort					
192.16	Standard TCP/IP Po	Standard TCP/IP Port CLT-MAIN-PTR-01					
✓ 192.16	Standard TCP/IP Port SATO PCL_type3_ Romoe85, S						
192.16	16 Standard TCP/IP Port SATO PCL LP100R V4, Generic t						
192.16	Standard TCP/IP Po	ort					
192.16	Standard TCP/IP Po	ort SATO PCL (	0 192.168.3.	140 ( LP			
192.16	Standard TCP/IP Po	ort NL PCL LP1	NL PCL LP100R 400dpi, NL PCL				
Add P	ort	Delete Port	te Port Configure Port				
	irectional support						
_] Enable prir	nter pooling						
		OK	Cancel	Ap	olu		

Selecting a port and clicking the *Configure Port* button will open the <u>Configure Ports</u> panel, allowing you to modify/specify the specific settings applicable to the communication protocol using either Raw or LPR.

Configure Standard TCP/IP Port Monitor X		×	Configure Standard TCP/IP Port Monitor			
Port Settings	2		Port Settings			
Port Name:	7.131.85_2		Port Name:	10.27.131.83		
Printer Name or IP Address: 10.2	7.131.85		Printer Name or IP Address:	10.27.131.83		
Protocol			Protocol			
Raw	⊂ LPR		◯ Raw	LPR		
Raw Settings			Raw Settings			
Port Number: 9100			Port Number: 91	00		
LPR Settings			LPR Settings			
Queue Name:			Queue Name:	S_SATO		
🔲 LPR Byte Counting Enabled			LPR Byte Counting Enable	d		
SNMP Status Enabled			SNMP Status Enabled			
Community Name: public			Community Name: pu	ıblic		
SNMP Device Index: 1		_	SNMP Device Index: 1			
,						
	ОК	Cancel		ОК	Cancel	

NOTE: The default for RAW protocol is port 9100.

LPR Protocol (port 515) is also an option. The queue name must match that of the LP 100R printer. The default printer queue name is **LIS\_SATO**. The queue name can be changed in the <u>Communications</u> <u>Menu</u> on the printer. Always enable the LPR Byte Counting option.

## Advanced Tab

The Advanced Tab defines how jobs are managed.

Start printing immediately will send data to the spooler and printer as the pages are rendered.

*Printing Defaults* will open the <u>Printer Preferences</u> that are to be used to define the default parameters when printing within Windows applications.

🖶 SATO PCL LP100R Properties Advanced Document Properties								
General Sharin	ng Ports	Advanced	Color Manage	ment S	Security	Advanced		
<ul> <li>Always av</li> <li>Available f</li> </ul>		12:00 AM	* *	То	12:00	AM	*	
Priority:	1	•						
Driver:	SATO PCI	LP100R			~ 1	New Driver		
<ul> <li>Spool print documents so program finishes printing faster</li> <li>Start printing after last page is spooled</li> <li>Start printing immediately</li> <li>Print directly to the printer</li> </ul>								
Hold mismatched documents								
Print spooled documents first								
Keep printed documents								
Enable advanced printing features								
Printing Defaults Print Processor Separator Page								
			OK		Cancel	App	oly	

# Printing from the Application

Changes at the application or at the Driver Preferences often are interactive when printing from later Windows Applications. Note: **Not** all applications have connections to the driver preferences; you may need to make changes independently at either the <u>Printer Preferences</u> or the <u>Printer Properties</u> window, as previously stated.



# SATO LP 100R Printer Settings

The settings in the LP 100R printer must match the data from the driver. The printer's configuration menu allows the user to edit the configuration for a unique type of job and store it for recall.

#### Emulation

The LP 100R v3 driver generates HP PCL5e<sup>®</sup> commands and sends the data stream to the defined printer to be interpreted and create the output. Be sure the configuration on the LP 100R printer is set to PCL emulation. This will be listed on the operator panel on the printer.

#### Form size

The size of the form loaded in the printer is defined in the active configuration of the printer. The settings used in the driver for the application and print job, must match those dimensions set in the printer. The width of the page defined in the printer is the print width, which is 1" less than the physical form width because of the pin feed (0.5") on each side. The active form size is shown on the printer's operator panel.

#### Resolution

The resolution of the printer is defined in the active configuration on the LP 100R printer. This is indicated on the operator panel. Be sure the active printer resolution matches the resolution used by the driver. Refer to the <u>Printer Preferences</u> (page 23).

#### **Emulation settings**

The LP 100R has additional settings for the PCL emulation to manage unique settings related to PCL.

#### **Extended Margins**

An added benefit of the continuous feed of the LP 100R is its capability of printing to the end of a page. Typically, a cut sheet printer is not able to do this, and traditionally margins on forms defined in windows are very generous. Extended margins or reduced margins are typical of continuous forms designed for the LP 100R. The Margins setting in the emu settings by default is Standard. In order to print to the edge, change this setting to Reduced, indicating the smallest margins.

#### PCL Idle Delay

The Idle Delay is a time interval setting which causes the printer to wait before going from Print to Idle state. The purpose is to prevent the printer from pausing when jobs are delayed while being sent to the printer. If the printer does not detect the next job before completing the current job, it will prepare to go into Idle mode. If the next job is delayed in getting to the printer before the present job completes, then the idle down process is begun, resulting in a delay where the printer will actually pause printing. When in Idle, the printer must first stop printing before it can start the next job. This results in a delay where the printer will pause (stop then restart printing). The delay setting, as an extra period of waiting after a job, completes before the printer idles. The idle delay can also balance jobs that are small in print time (minimum number of printed pages) created by large file sizes which take a longer time to be created and transmitted then the actual time to print. The setting is arbitrary and is determined by experimentation to find a setting that will balance performance in a unique scenario.

#### **Resolution Support**

Enabling resolution support within emulation settings allows the LP 100R printer to change the emulation's resolution if the data steam includes the resolution command.

# Communications

The IP address is set in the communications menu. It is recommended you use a Static IP address in place of a Dynamic IP address, which could change upon restarting the printer.

The LP 100R Printer will listen on both Raw and LPR ports. When a job is detected on one of the ports, the printer will change from Idle to Print status. This is seen on the Operator Panel on the LP 100R printer. As long as the port continues to receive data, the printer will continue to use that port and not process data from other ports until the current port becomes idle again. The printer's operator panel will indicate which port the job is received on: <u>On TCP/IP</u> means the job is via Raw protocol on port 9100. <u>On Ethernet</u> indicates the jobs are received via LPR on port 515.

#### LPR Queue Name

LPR protocol requires a queue name. It is "**LIS-SATO**" by default. It can be set in the communications menu on the LP 100R printer to match the name defined in the host (driver).

# Differences / Advantages

Windows 8 and later support both Type 3 (GDI) and Type 4 (XPS) drivers. Prior Windows operating systems only supported the Type 3 drivers.

To determine if a driver is Type 3 or 4, you can view details from <u>Print Management</u>, or you can also find the Driver type under Print Server Properties \ Drivers.

Either LP 100R driver, when properly configured, will send valid print commands to the printer. Which is best suited for your application will often be an individual preference based on the user experience when launching a print job around the user's interaction between the application and printer dr settings. The shortcuts option of the PCL LP 100R v3 driver makes it easy to change driver settings by selecting preconfigured definitions when the settings are not in the job and have to be made by the user.

The v4 (XPS) driver interface was developed by Microsoft to resolve potential interference and memory leaks seen in environments with multiple applications using the same resources. XPS interface is well suited for jobs that are not specific to a device. It also has supports strengths in sharing devices.

Applications sensitive to the resulting output file size will typically see smaller files and shorter time to generate in the device-specific interface of the v3 driver.



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