



PRINT CONTROL PROXY

USER GUIDE

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Contents

1. SCOPE.....	3
2. INTRODUCTION	3
3. SYSTEM REQUIREMENTS	4
3.1. Installation requirements.....	4
3.2. Other requirements	5
4. INSTALLATION AND USAGE	6
4.1. Download, install and run.....	6
4.2. Using the PCP	10
4.3. Printing a test page	11
5. TROUBLESHOOTING/FAQS.....	12
5.1. Unable to start the installer.....	12
5.2. Unable to print after installation	13
5.3. My antivirus stops PCP from running	16
5.4. The printer I want to use is not shown in the drop-down list	17
5.5. "Document was sent to printer" but no printout was received	18
5.6. PCP stuck while fetching printer list	19
5.7. Upgrading Phidelity version.....	19
5.8. Unable to connect to 127.0.0.1	21
5.9. "An error occurred while retrieving the document from the server."	23
5.10. Printer does not show up after upgrading PCP	24
5.11. If the above steps did not resolve your issue	25

1. Scope

This document is a guide to the downloading, installation and usage of the Print Control Proxy (PCP) for the users of the application.

2. Introduction

Your application's Print Control functionality has thus far used a Java applet running in your browser to enable you to print to your local printer. In recent months, major browser developers including Microsoft, Google and Mozilla have announced plans to remove or restrict support for Java applets.

In view of this, CrimsonLogic has developed the PCP, a small service program that you download once and run on your machine. Like the applet, the PCP allows secured documents to be printed in a controlled manner at a printer connected to your machine. Compared to the applet, we find that the PCP leads to a more seamless printing experience.

3. System Requirements

3.1. Installation requirements

Print Control Proxy has the following installation requirements:	
User Environment	Windows Operating System: Windows Vista or later .NET Framework: version 4.5 or higher
Browser Requirement	If you are using Internet Explorer and you are facing issues loading the print page, refer to FAQ section 5.2 below.
Network Environment	If you are facing issues printing after installation, please make sure Print Control Proxy is whitelisted from firewalls, antiviruses or any other potential obstacles preventing PCP from communicating with the server. Additionally, ensure that TCP/IP Port 50000 is available.

3.2. Other requirements

Print Control Proxy has the following requirements:	
Printer Driver Requirement	<p>Printer Driver must be a PostScript-enabled driver.</p> <p>Please contact your printer vendor for the latest PostScript-enabled driver. (Typically has "PS" in the driver name)</p>
Printer Connectivity	<p>PCP currently only supports USB, LPT, DOT4 or valid TCP/IP ports.</p> <p>Please ensure the TCP/IP ports do not have prefixes or suffixes (e.g. IP_123.123.123.123 or 123.123.123.123_1)</p> <p>Please note that shared USB printers are not compatible, and shared network printers must be reachable (able to be pinged) by both computers.</p>
Printer Availability	<p>When printing through PCP, the printer queue must NOT be paused or set to use offline. Additionally, the printer must be online (connected to computer) and the print queue must be empty to allow printing through PCP.</p> <p>A simple way to test availability is to print a test page (see section 4.3)</p>
Printer Compatibility	<p>Please refer to the printer compatibility list published on the application portal, or check with application support team.</p>
Latest Printer Listing (after installation of new printers)	<p>Ensure to click on the "Refresh" button on the application print page to load the latest list of allowed printers installed on your system.</p>

4. Installation and Usage

4.1. Download, install and run

Upon accessing the application's printing page for the first time in your browser, you will see a message prompting you to download and install the PCP. Click on the link to download the PCP. You will be prompted to save (or run) the file. The below figures show the visuals for various browsers.

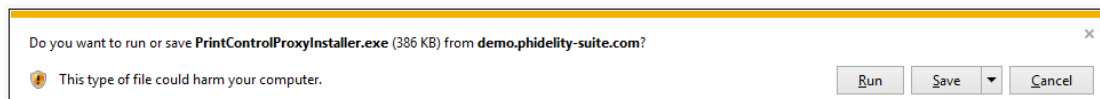


Figure 1: Installing the PCP (Internet Explorer)

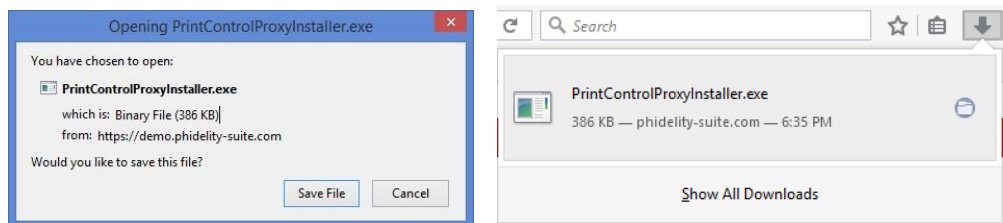


Figure 2: Installing the PCP (Firefox)

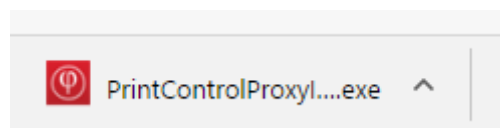


Figure 3: Installing the PCP (Chrome)

Run the installation with **administrator privileges**. (It is recommended that the user logged in during installation has admin rights)

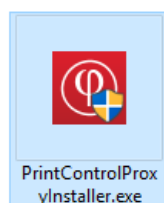


Figure 4: Running the installer

The installer should run and the following screen should appear. (If it does not appear, click [here](#)) Click on **Install** to proceed.

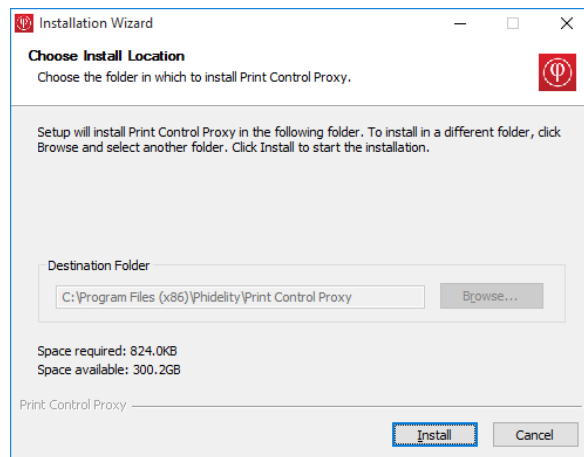


Figure 5: Installation confirmation window.

The installation will run, and you should see the following screen when it completes. Click **Close** to finish the installation.

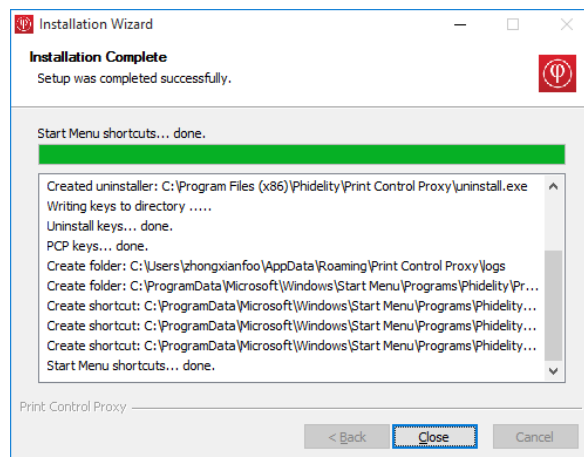


Figure 6: Installation complete.

If alerted by the certificate installation warning, click 'Yes'.

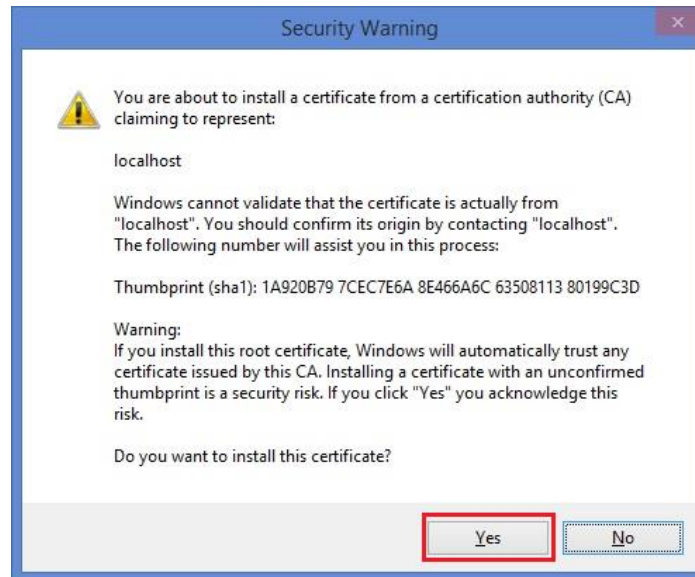


Figure 7: Certificate Installation Warning

A popup indicating successful installation appears.

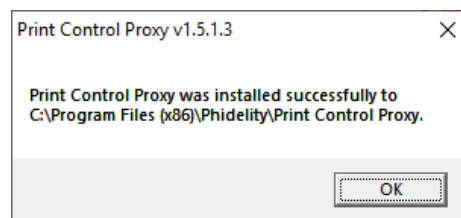


Figure 8: Installation successful

A prompt should appear saying that PCP is running.

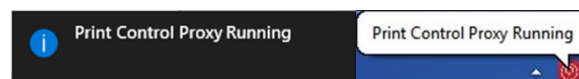


Figure 9: "Print Control Proxy is running" prompts.

The PCP icon will appear in the System Tray at the bottom right of your screen.

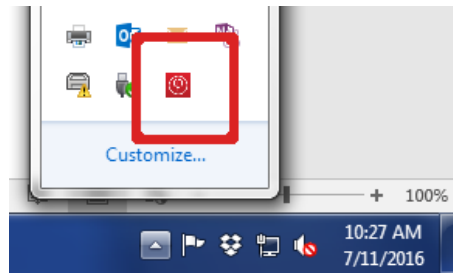


Figure 10: PCP running in System Tray

Users are recommended to **perform a restart** after the installation.

Note: Mozilla Firefox users may need to follow steps (a) and (b) below:

a. Go to <https://127.0.0.1:50000>. Click on **Advanced** and **Add Exception...**

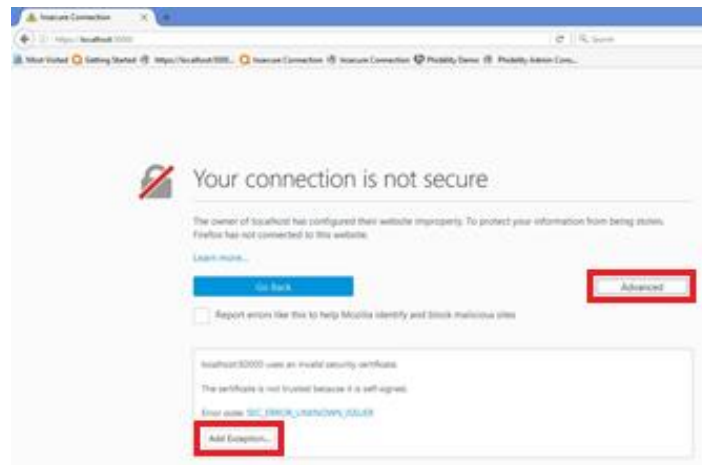


Figure 11: Visit 127.0.0.1 in Mozilla

b. Click on **Confirm Security Exception**

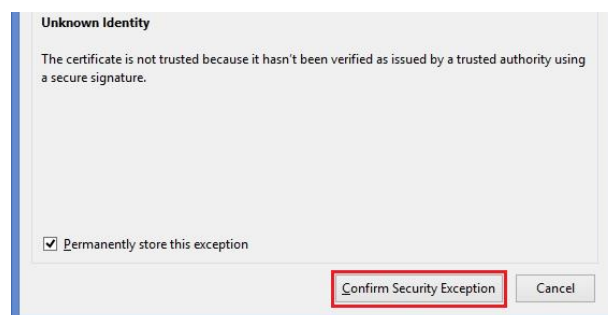


Figure 12: Confirm Security Exception

Finally, to verify that PCP is installed and running, go to <https://127.0.0.1:50000>. You should see the following screen:



Figure 13: PCP successfully running

Note: Refer to the [troubleshooting section](#) if the above screen does not appear.

4.2. Using the PCP

Access the printing page in the application. Once the application's printing page detects that PCP is running, the page will show a list of available printers. To print, select the desired printer from the drop-down box and click Print.

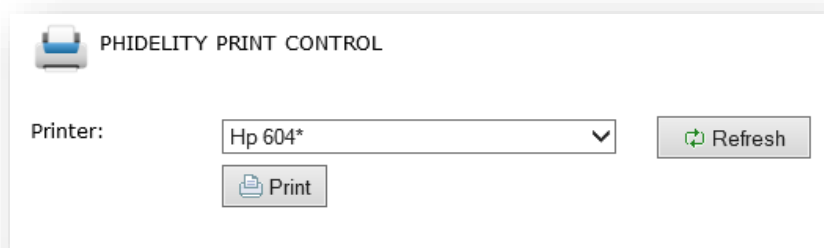


Figure 14: Using the PCP

You can click Refresh at any point to update the list of printers displayed in the drop-down box (this may be useful if you install a new printer).

4.3. Printing a test page

Access the test page through: <https://127.0.0.1:50000/testprint>. Loading of this page may take some time, depending on how many printers you have installed on your machine.



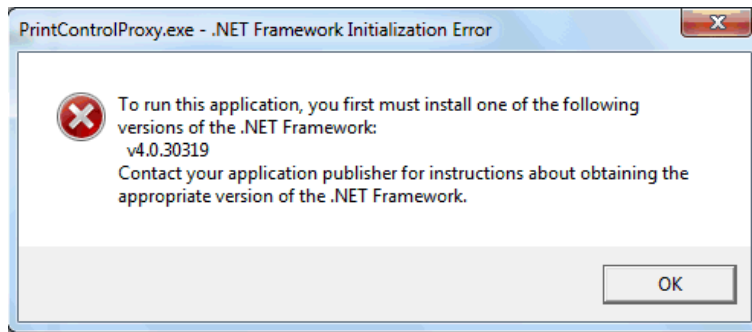
Print Test Page

Printer:

Select the printer you would like to test, and click on Submit. The test page will be sent to your printer.

5. Troubleshooting/FAQs

5.1. Unable to start the installer



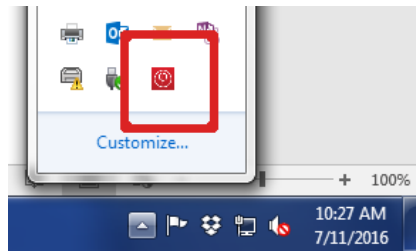
- a. Ensure that .NET Framework 4.5 is installed.

Download the installer for .NET Framework 4. from Microsoft at:

<https://www.microsoft.com/en-sg/download/details.aspx?id=40779>.

5.2. Unable to print after installation

- a. Ensure that PCP is running in the system tray.



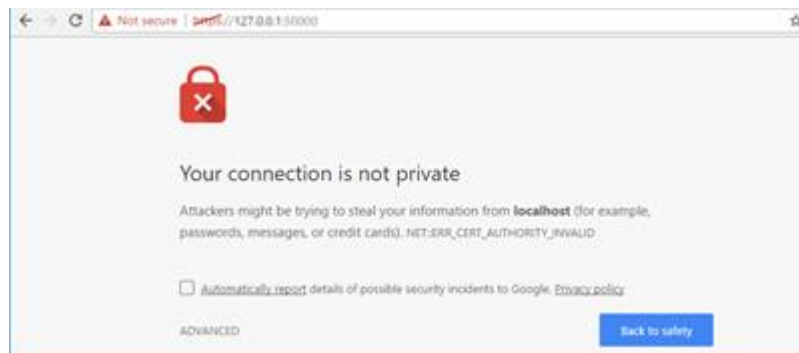
- b. If PCP is not running, go to **Start Menu > All Programs > Phidelity > Print Control Proxy** and click the Print Control Proxy executable.

- c. If PCP is already running but it still does not work:

Perform a restart.

If PCP still does not work after restarting, follow the steps below:

For **Internet Explorer/Chrome/Firefox** users:

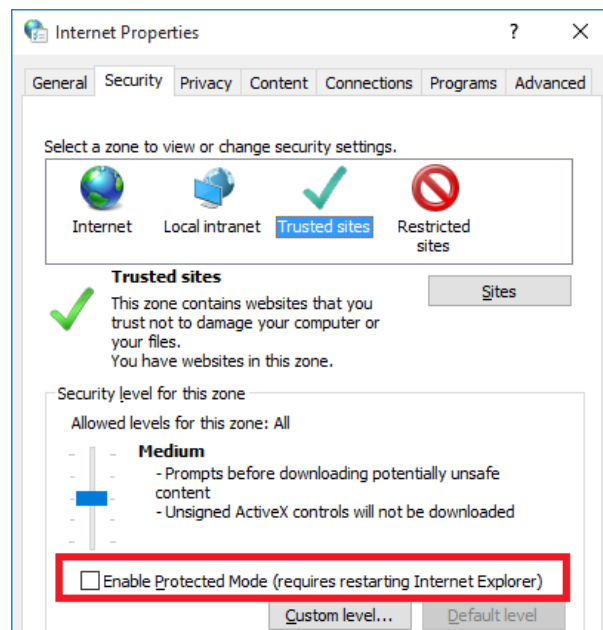


- **Upgrade to the latest version.**
- If a temporary workaround is necessary:
- Go to <https://127.0.0.1:50000>.
- For older versions of PCP with the older SSL certificate, Chrome users with (version 58 onwards) will see the above screen displayed.
- Click **Advanced > Proceed to 127.0.0.1 (unsafe)** to temporarily allow PCP's old certificate.

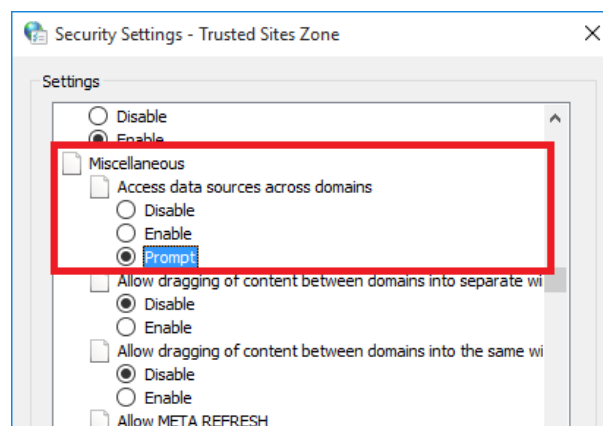
If previous step still did not help:

For **Internet Explorer** users:

- Open the **Internet Options** page. (Click on the **gear icon** on the top right > **Internet Options**)
- Go to the **Security** tab.
- Click on **Trusted Sites** and click on **Sites...**
- Add the **URL of the application** into the list.
- Ensure that **Enabled Protected Mode** option is **unchecked**

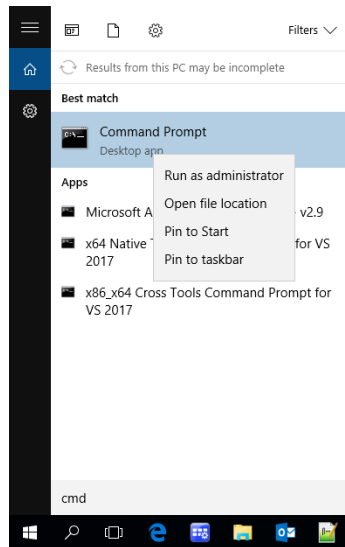


- **If the issue persists**, go to the **Trusted Sites** in **Security** tab following the instructions above.
- Click on **Custom Level...**
- Ensure that data sources across domains are set to Enable or Prompt



For **Microsoft Edge** users:

- Perform the above steps for Internet Explorer users **and**
- Press the **windows button** and search for "**cmd**"
- Click on **Run as administrator**



- Run the following command:

CheckNetIsolation LoopbackExempt -a -n="Microsoft.MicrosoftEdge_8wekyb3d8bbwe"

This command enables loopback, allowing you to access 127.0.0.1 directly on Microsoft Edge.

5.3. My antivirus stops PCP from running

Like most Windows applications, PCP uses the registry to store configuration values such as version numbers within the registry. This may cause PCP to be flagged by the antivirus during installation.

If the installer was already run once and the Start Menu items are already created, try running PCP from Start Menu.

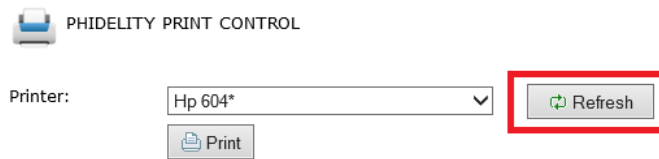
If PCP is still blocked, please contact your system administrator, or manually whitelist PrintControlProxy.exe located in:

For 32-bit systems: C:\Program Files\Phidelity\Print Control Proxy

For 64-bit systems: C:\Program Files (x86)\Phidelity\Print Control Proxy

5.4. The printer I want to use is not shown in the drop-down list

If your printer is newly installed, click the Refresh button to refresh the printer list.

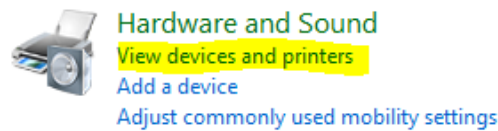


Ensure that the printer supports the required 600dpi resolution and uses a PostScript driver (contact your printer vendor to be sure).

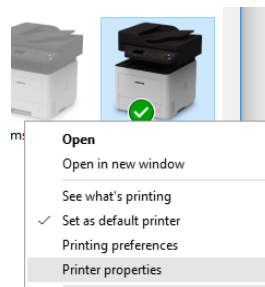
Ensure that the printer is running on a **USB, LPT, COM, DOT4** or a valid **Network** port.

To check the port:

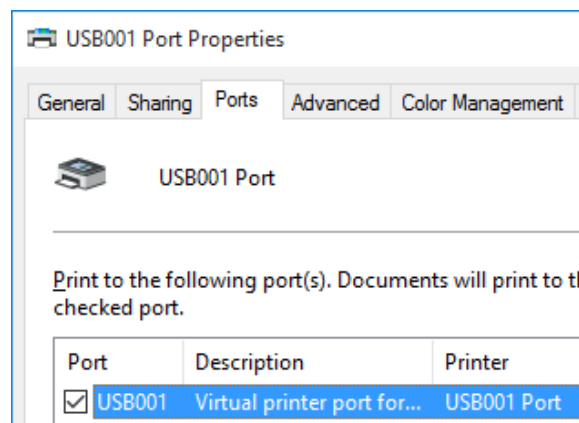
- a. Go to **Control Panel > View devices and printers**



- b. Right click the printer you are using, select **Printer properties**



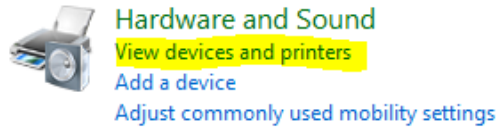
- c. Under **Ports** tab, check the port in use.



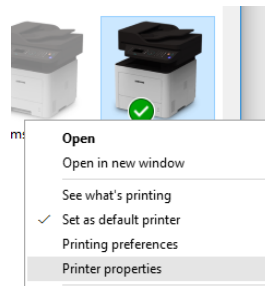
If you are running a different type of port (e.g. WSD port), please add your network printers through a **Standard TCP/IP port**, or contact your system administrator.

5.5. “Document was sent to printer” but no printout was received

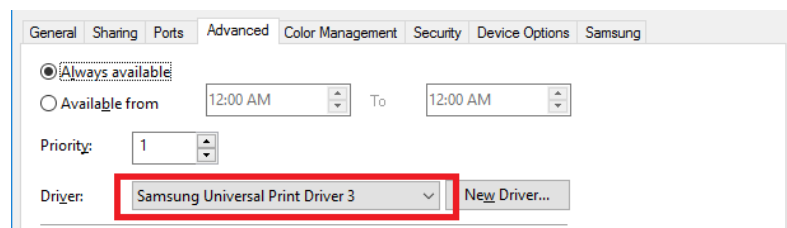
1. Ensure that you can print a test page.
2. Ensure that your printer driver uses a PostScript driver and not a PCL driver.
 - a. Go to **Control Panel > View devices and printers**



- b. Right click the printer you are using, select **Printer properties**



- c. Under **Advanced** tab, check the driver.



- d. Make sure the driver is either, a discrete **PostScript driver** OR a **universal print driver** that **supports PostScript**.

Note: You may wish to contact the printer vendor to be sure the driver is a proper PostScript driver, and that the driver is compatible with your printer.

3. Contact the application support team to ensure that you have not exceeded the print quota of the document.
4. Contact your network administrator to check if PCP can send and receive HTTP requests.

5.6. PCP stuck while fetching printer list

Typically, the printer list is displayed in less than a minute. It can take longer if you have many printers installed. If it takes too long:

- i. Restart the workstation and try again.
- ii. If you are not running the latest version of PCP, there should be a download link available for you to download the latest PCP.

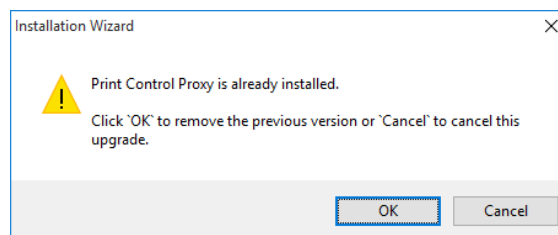


5.7. Upgrading Phidelity version

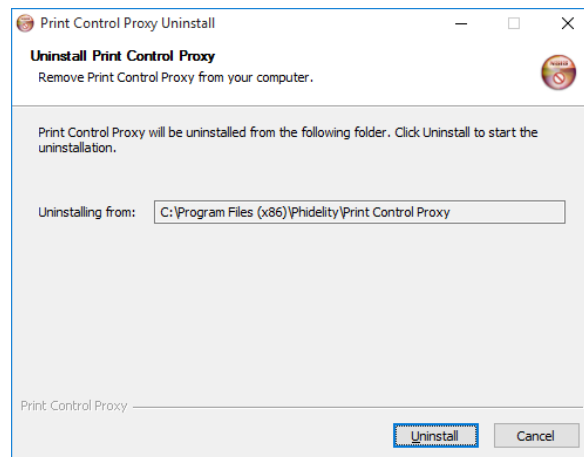
1. Download the latest version of PCP.



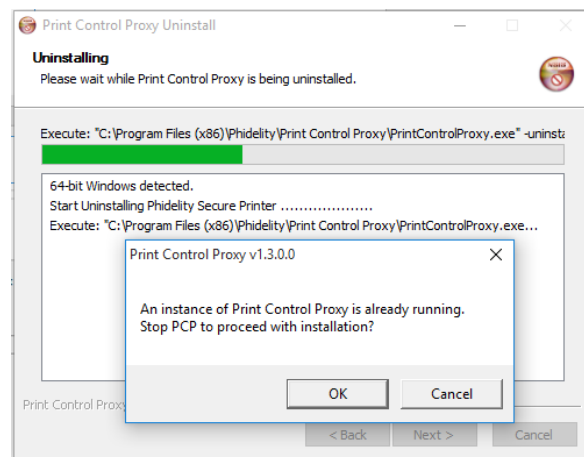
2. The following screen will appear. Click **OK** to continue.



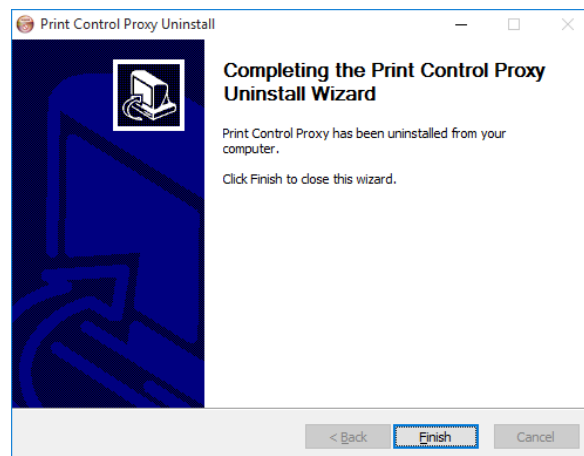
3. The uninstaller will launch. Click **Uninstall** to continue.



4. If PCP is detected to be running during the uninstall process, the following popup will appear. Click **Yes** to continue.



5. When uninstall completes, the following screen will appear. Click **Finish** to proceed with the installation of the upgrade.



6. The installer will then run, and proceed to install the new version of PCP. Follow the installation steps listed above.


5.8. Unable to connect to 127.0.0.1

1. Ensure that <https://127.0.0.1:50000> is not accessed via a proxy.
 - a. Click **Start Button** > **Run/Search** > type in "inetctl.cpl"

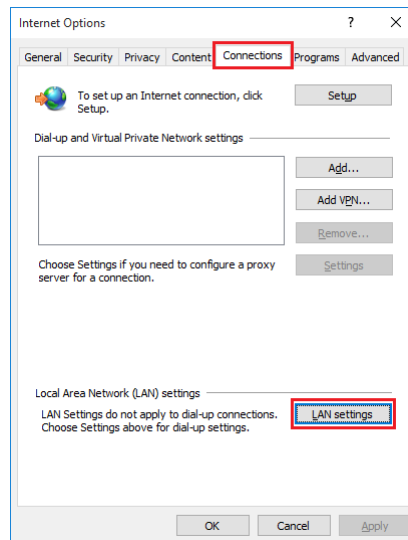
OR

- b. Go to **Control Panel** > **Internet Options**

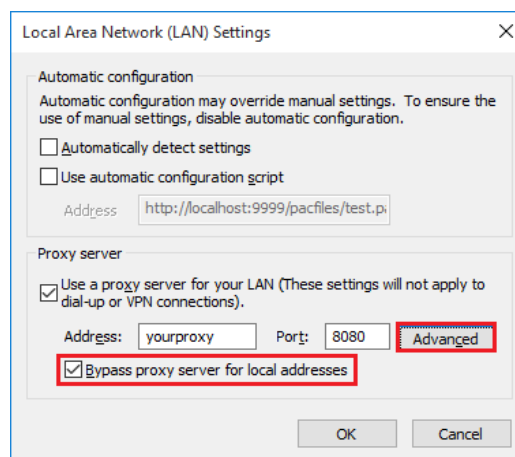
View by: **Small icons** ▾

 **Internet Options**

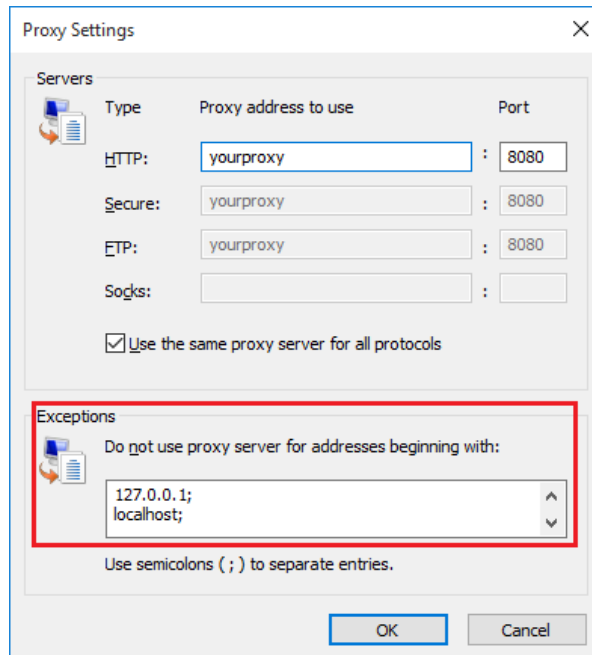
- c. Click the **Connections** and **LAN Settings**.



- d. Ensure that **Bypass proxy server for local addresses** is checked. Click on **Advanced**.



- e. Ensure that under the **Exceptions** section, there are entries for 127.0.0.1 and localhost.



- f. Keep clicking **OK** until the Internet Options window is dismissed.
2. If the above did not help, ensure that the javascript files are loaded properly.
- On the browser, hold Ctrl and press R to force refresh the page.
 - Alternatively, clear your browser's cache (refer to user manual for your specific browser) and try again.

5.10. “An error occurred while retrieving the document from the server.”

1. Steps for **Firefox** and **Chrome** users:
 - a. Ensure that you are able to navigate to the web application in Internet Explorer.

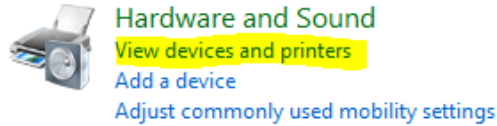
OR

 - b. Change your proxy settings to read system proxy settings, ensure that the browser is still able to navigate to the web application and follow the steps below.
2. For all users:
 - a. Consult your network administrator.
 - b. Ensure that in Internet Explorer, your proxy settings (if any) are manually configured and not read from a script.
 - If your settings are read from a script or must be detected automatically, contact your network administrator to whitelist the application's domain from the proxy server.
 - c. If the browser is able to view the web application but the error still persists:
 - Check with your network administrator and ensure that PCP is allowed to send and receive HTTP requests.

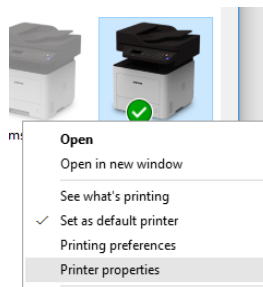
5.11. Printer does not show up after upgrading PCP

1. Ensure that you can print a test page.
2. Ensure that your printer driver uses a PostScript driver and not a PCL driver.

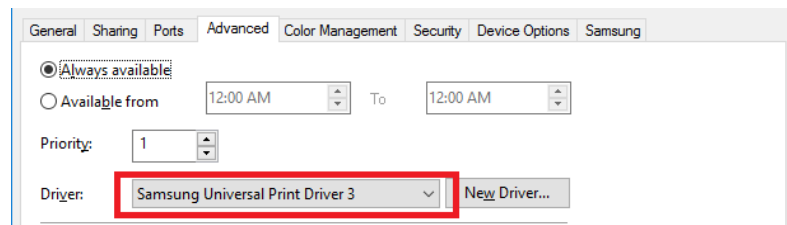
b. Go to **Control Panel > View devices and printers**



c. Right click the printer you are using, select **Printer properties**



d. Under **Advanced** tab, check the driver.







e. Make sure the driver is either, a discrete **PostScript driver** OR a **universal print driver** that **supports PostScript**.

Note: You may wish to contact the printer vendor to be sure the driver is a proper PostScript driver.

5.12. If the above steps did not resolve your issue

Please send an email to the application support team. Please include:

- A screenshot or explanation of the issue you are facing
- PCP log files from the Print Control Proxy logs folder (Start Menu > All Programs > Phidelity > Print Control Proxy > Print Control Proxy logs folder).
- Or, right click on PCP icon in system tray, select Open Logs Folder
- The log files look like this:

 PrintService.log	23/2/2017 3:18 PM	Text Document
 PrintService_20170216.log	16/2/2017 6:59 PM	Text Document
 PrintService_20170220.log	20/2/2017 9:34 AM	Text Document
 PrintService_20170222.log	23/2/2017 9:54 AM	Text Document

Please include the following details as well:

- Browser used (and version)
- Model of printer
- Operating system