



Pcounter for Windows

Install, Change, & Upgrade Guide

2018.10.16

Copyright © 2018

A.N.D. Technologies
4104 24th Street #627
San Francisco, CA 94114
USA

E-Mail: support@pcounter.com
Web: <http://www.pcounter.com>
Phone: (415) 701-9222
Fax: (415) 651-9000

Contents

1.0.0.0 - Important Information - Please Read	4
1.0.0.1 - What is Pcounter for Windows?	4
1.0.0.2 - Trial Period	4
1.0.0.3 - License Changes.....	4
2.0.0.0 - Install New Pcounter for Window 2.x Server	5
2.1.0.0 - Prepare Print Server	5
2.1.1.0 - Install Print Server Role	5
2.1.2.0 - Install .Net Framework 3.5	5
2.2.0.0 - Print Queue Creation Overview.....	6
2.2.1.0 - Print Queue Creation Process	6
2.3.0.0 - Install Pcounter for Windows 2.x	8
2.3.1.0 - Download & Install Pcounter.....	8
2.3.2.0 - Create Pcounter Share	8
2.3.3.0 - Install\Start Pcounter Service.....	9
2.3.5.0 - Cloning Printers	17
2.4.0.0 Passive Print Job Logging	10
2.4.1.0 Enable Passive Logging	10
2.4.2.0 Test Passive Logging	11
2.5.0.0 - Real-time Accounting & Logging (Prices & Balances).....	12
2.5.1.0 - Determine Initial Cost, User Balances, & Free Quota	12
2.5.2.0 - Set Balances\Free Quota	12
2.5.3.0 - Migrate Printers	13
2.5.4.0 - Set Accounting Mode & Prices	14
2.5.5.0 - Test Accounting.....	16
2.6.0.0 - PcounterWin2x Documentation	17
3.0.0.0 - Install New Pcounter for Window 3.x Server	17
3.1.0.0 - Prepare Print Server	17
3.1.1.0 - Install Print Server Role	17
3.1.1.2 - Install .Net Framework 3.5	18
3.2.0.0 - Print Queue Creation Overview.....	18
3.2.1.0 - Print Queue Creation Process	18
3.3.0.0 - Prepare Database Server	21
3.3.1.0 - MySQL Server Preparation	21
3.3.2.0 - Oracle Client Side Preparation	22
3.3.3.0 - SQL Server Preparation	23

3.4.0.0 - Install Pcounter for Windows 3.x	26
3.3.1.0 - Download & Install Pcounter.....	26
3.3.2.0 - Configure Database Connection & Install Pcounter Data Service	26
3.3.2.0 - Test Database Connection.....	27
4.0.0.0 - Change Pcounter 2.x to Pcounter 3.x	28
4.1.0.0 Insert Registration	28
4.2.0.0 Update Existing Server to Latest 2.x	28
4.3.0.0 Install Latest 3.x	28
4.4.0.0 Configure Database Connection & Update Pcounter Data Service	29
5.0.0.0 - Upgrading Pcounter for Windows	30
5.1.0.0 - Upgrade Pcounter for Windows 2.90\3.x & Newer	30
5.2.0.0 - Upgrade Pcounter for Windows 2.88 & Older	31
5.2.1.0 Insert Registration	31
5.2.2.0 Update Other Pcounter Software.....	31
5.2.3.0 Install Package	32
5.2.4.0 Update Popup Clients.....	32
5.2.5.0 Update Pcounter Services	32
6.0.0.0 - Documentation and Video Links	33

1.0.0.0 - Important Information - Please Read

This guide provides step by step documentation for installing Pcounter for Windows 2.x and Pcounter for Windows 3.x, as well as how to change from Pcounter 2.x to Pcounter 3.x.

It is **very important** to understand that Pcounter for Windows 2.x and Pcounter for Windows 3.x are **identical** except that **2.x does not** require a SQL\Oracle\MySQL database server, and **3.x does** require a SQL\Oracle\MySQL database server. **One is not newer than the other and major revisions of both versions are released simultaneously.**

Pcounter **2.x** is easier to install, configure, and maintain. Its only weakness is that it does not allow for the use of a database server. **Always use Pcounter 2.x unless** a database server is required by the environment.

Pcounter **3.x** is more challenging to install, configure, and maintain. Its **only strength** is that it supports SQL\Oracle\MySQL and in some environments this is a requirement due to size, security, and other reasons.

Please understand the differences between Pcounter 2.x and Pcounter 3.x before choosing which one is best for the environment and before proceeding with an installation or server change.

1.0.0.1 - What is Pcounter for Windows?

Pcounter for Windows is Windows server software used to track printing as well as provide a back end for all other Pcounter components such as Pcounter Embedded and Pcounter Station.

When Pcounter for Windows is installed on a Print Server (Windows Server 2012R2 and newer recommended) it can be used to track all the server's printing.

Pcounter can log printing passively without interfering with users, or Pcounter can do accounting in real-time with user account balances and job costs.

Pcounter's logged data can be used for reporting and accounting with Pcounter Administrator (Padmin.exe) and Pcounter Web Administrator (PWA), both of which are built in components of Pcounter for Windows.

1.0.0.2 - Trial Period

Pcounter comes with a 60 day trial period that can be extended once per server. Once a trial has been extended once it cannot be extended again on the same server.

For step by step instructions on viewing the server's current Pcounter license info, please see our how to register video: <https://youtu.be/DKHMeep3JA>

1.0.0.3 - License Changes

If a change to a Pcounter for Windows server license is needed please use our online web form at <https://apps.pcounter.com/change>. Please use the Notes field in the form for special instructions.

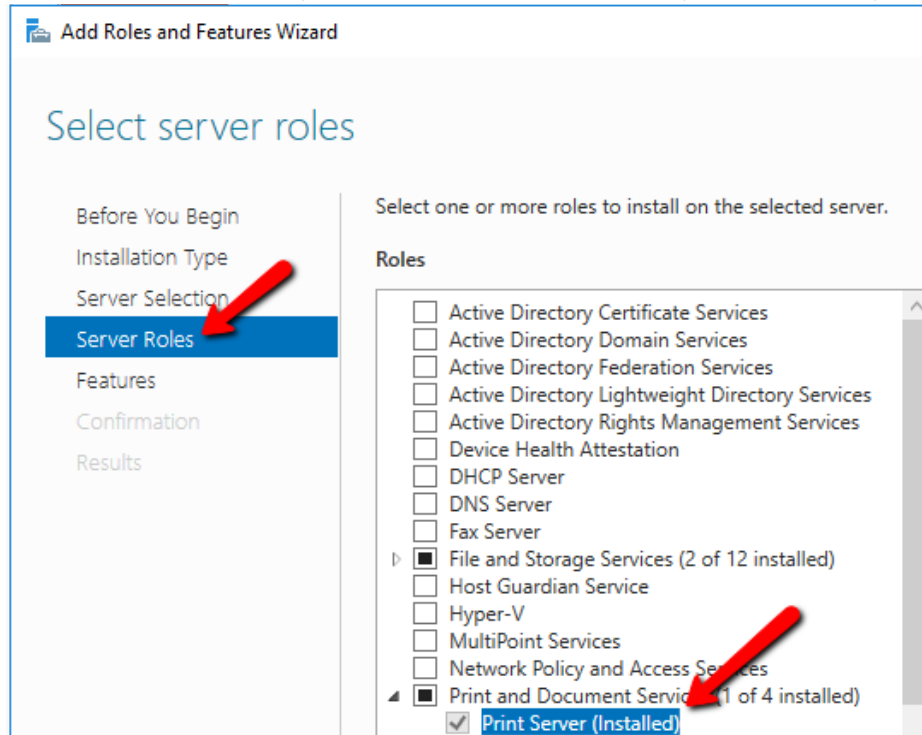
2.0.0.0 - Install New Pcounter for Window 2.x Server

2.1.0.0 - Prepare Print Server

The Windows 'Print Server' Role and '.Net Framework 3.5' Feature must both be installed on the Print server where Pcounter for Windows will be installed.

2.1.1.0 - Install Print Server Role

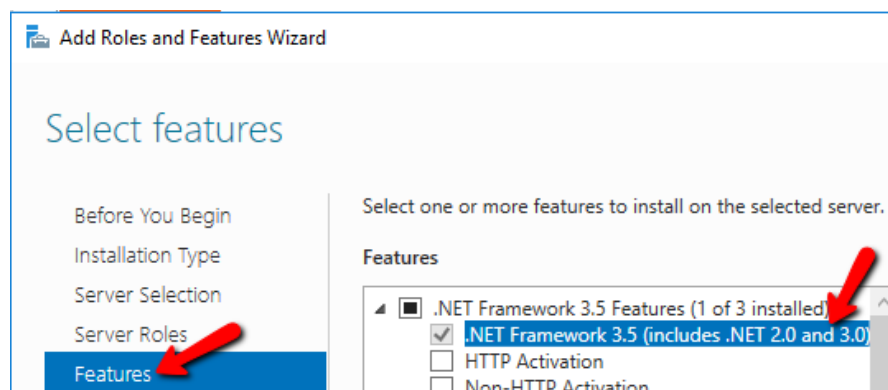
This is a very straightforward process and likely has been done previously if this is not a fresh server. To install the Print Server Role, go to Server Manager > Add Roles and Features Wizard > Server Roles, expand 'Print and Document Services', check the box for 'Print Server', then click Next, and Install.



2.1.2.0 - Install .Net Framework 3.5

This is also a very straightforward process and likely has been done previously if this is not a fresh server.

To install .Net Framework 3.5, go to Server Manager > Add Roles and Features Wizard > Server Roles > Features, expand '.Net Framework 3.5 Features', check the box for '.Net Framework 3.5', and click Install.



2.2.0.0 - Print Queue Creation Overview

Very often Pcounter for Windows is used to track print queues that reside on the server where Pcounter is installed. Pcounter does not create these print queues automatically however, they must be created by the server's administrator. This is not a function of Pcounter or a support process that we assist with normally, however we do provide detailed info on how this is normally done.

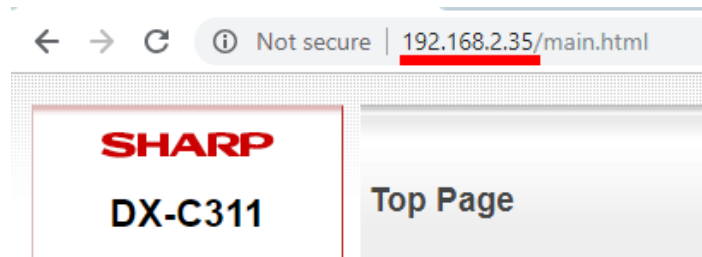
2.2.1.0 - Print Queue Creation Process

2.2.1.1 - Ping & Browse Printer's IP

- 1) First the printer must be connected to the Network, powered on, and reachable by the server. Test communication from the server to the printer using the 'Ping' command.

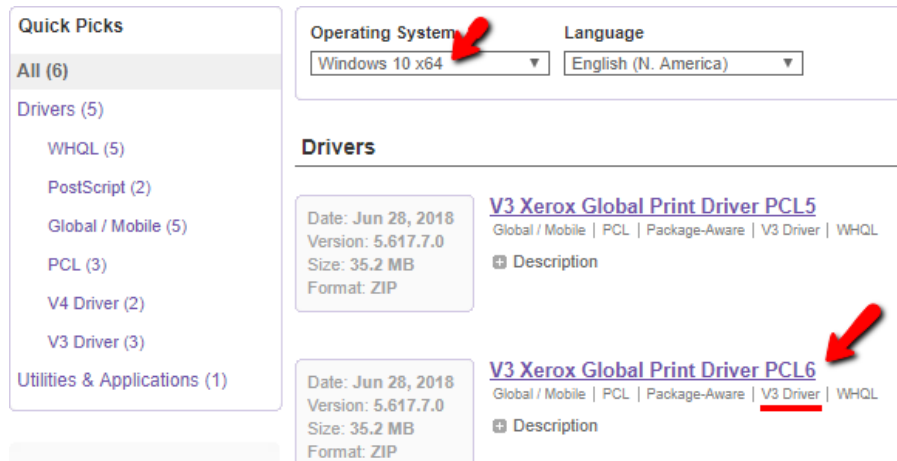
```
C:\Users\administrator.TEST>ping 192.168.0.27  
  
Pinging 192.168.0.27 with 32 bytes of data:  
Reply from 192.168.0.27: bytes=32 time<1ms TTL=128
```

- 2) Another way to confirm the printer is online and using the right IP is to browse to its IP address in a web browser. Many printers have internal web engines and will display a UI containing their model number.



2.2.1.2 - Install Print Driver

- 1) Once certain of the model number and connectivity, download the very latest model specific or universal/global type 3 print driver available for that model on the manufacturer's official website.

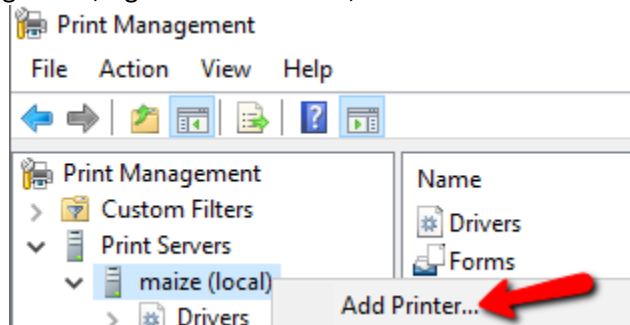


- 2) Pcounter Support recommends installing all driver files to a path like C:\Drivers*specific driver*

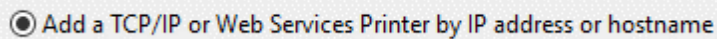
2.2.1.3 - Create Print Queue

Please use Windows's Print Management MMC to do any print queue administrator tasks. To install a print queue.

- 1) Open Print Management, right click the server, and choose 'Add Printer'.

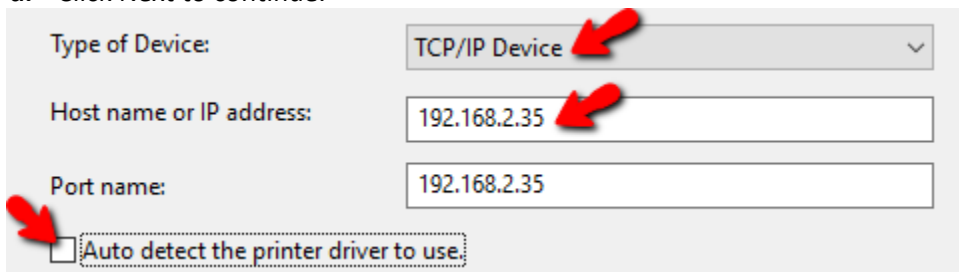


- 2) Choose 'add a TCP/IP or Web Services Printer by IP...' and click Next.

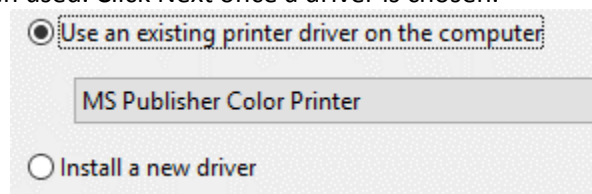


- 3) In this window:

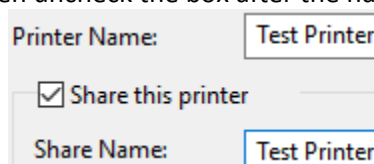
- a. Change Type to TCP/IP Device
- b. Type the IP in its field.
- c. Uncheck box for 'auto detect the print driver...'
- d. Click Next to continue.



- 4) Click Next on the 'additional port info...' screen if displayed.
- 5) Choose a driver from the list of drivers that have been used previously or specify a new driver that has never been used. Click Next once a driver is chosen.



- 6) Type a Printer Name and Share Name that match exactly. If the printer should not be shared then uncheck the box after the names match.



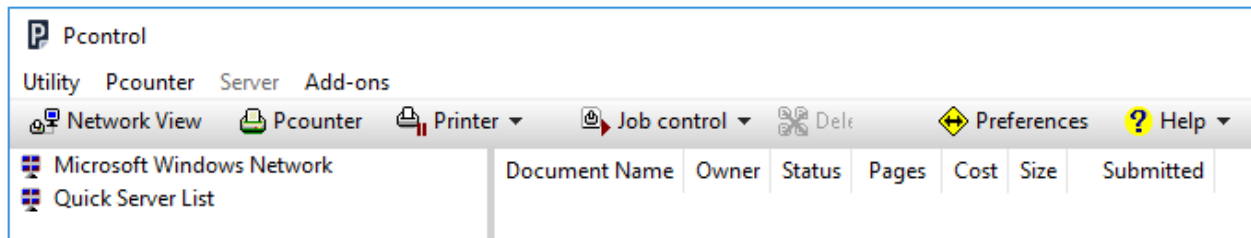
- 7) Click Next, Next, and then Install to create the printer and complete the process. Repeat as needed until all printers are created.

2.3.0.0 - Install Pcounter for Windows 2.x

Now that the server is prepared, and print queues are installed, Pcounter for Windows is ready to be downloaded, installed, and configured.

2.3.1.0 - Download & Install Pcounter

- 1) Download the latest version of Pcounter for Windows 2.x at: www.pcounter.com/download
- 2) Run the installer on the Print Server and take the defaults unless the path must be customized.
- 3) The first thing to do when Pcounter is installed is open Pcontrol. This can be done through the Start Menu, or by browsing to C:\Program Files (x86)\Pcounter for NT\ and launching Pcontrol.exe.

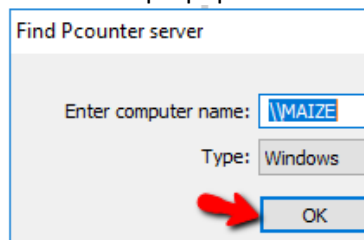


2.3.2.0 - Create Pcounter Share

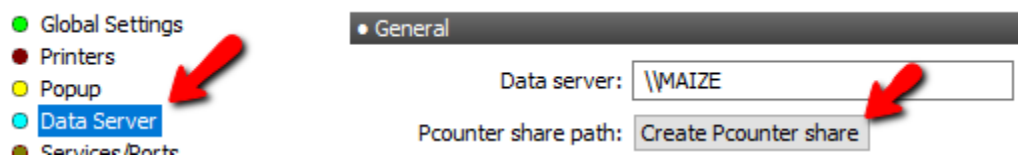
- 1) From the main Pcontrol Window, click at the top where it says Pcounter, and then 'Configure Pcounter Server'.



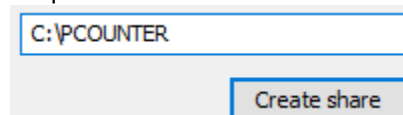
- 2) The name of the Pcounter server will be prepopulated. Just click OK to open the next window.



- 3) Once the Pcounter configuration window is displayed, click on the 'Data Share' bullet.
- 4) In the Data Share section, click Create Pcounter Share.

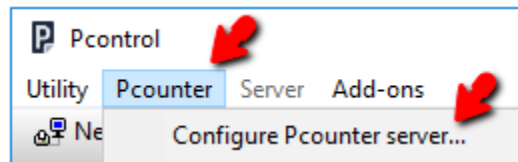


- 5) Use the default path unless required and click Create Share to complete the process.

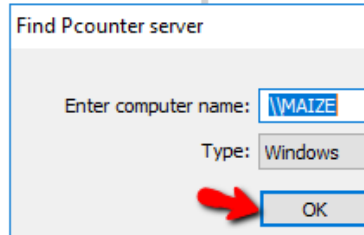


2.3.3.0 - Install\Start Pcounter Services

- 1) From the main Pcontrol Window, click at the top where it says Pcounter, and then 'Configure Pcounter Server'.



- 2) The name of the Pcounter server will be prepopulated. Just click OK to open the next window.

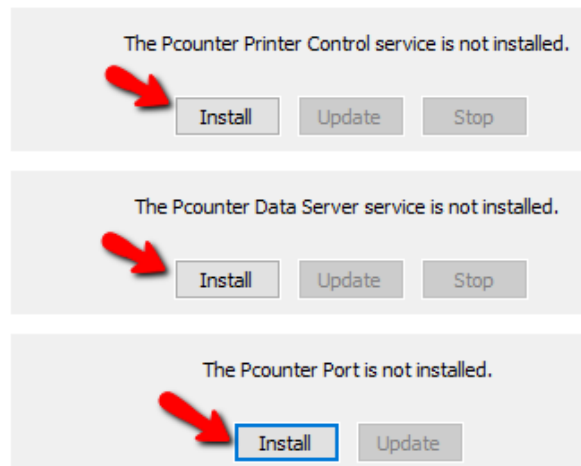


- 3) Once the Pcounter configuration window is displayed, click on the 'Services/Ports' bullet.
- 4) Click the Install button for the two Pcounter services and the Pcounter Port.

- Services/Ports
- LPD Server
- Message Text
- Message Transport
- Real time monitor

Data Server service - Client IP ports: [Test](#)

[Windows firewall script](#)



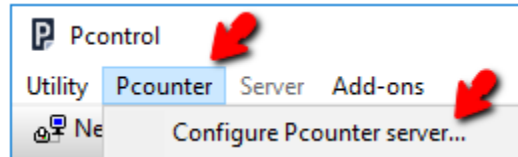
- 5) Once installed start the services to complete the process.

2.4.0.0 Passive Print Job Logging

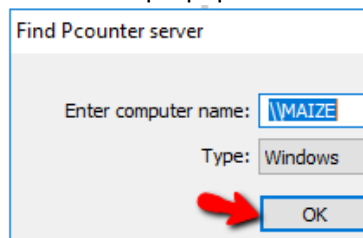
Pcounter can passively log all print job usage without interfering with users. The logged data can then be used to run reports on usage.

2.4.1.0 Enable Passive Logging

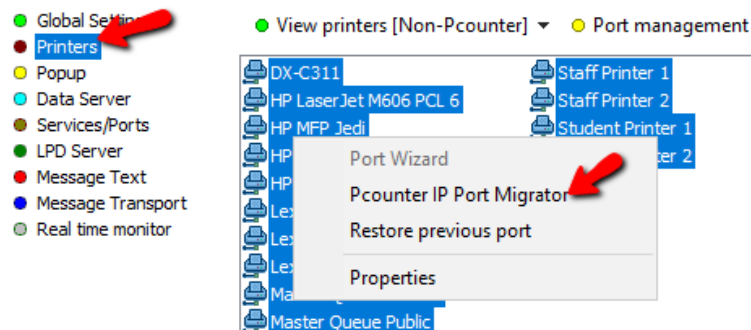
- 1) From the main Pcontrol Window, click at the top where it says Pcounter, and then 'Configure Pcounter Server'.



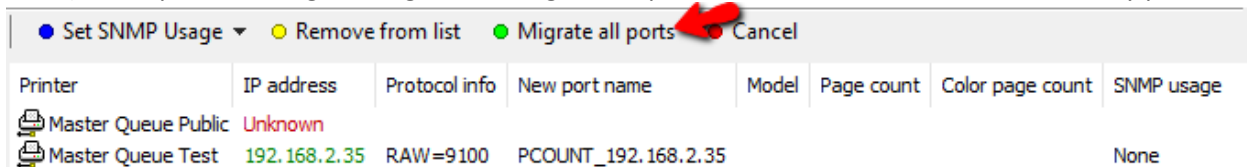
- 2) The name of the Pcounter server will be prepopulated. Just click OK to open the next window.



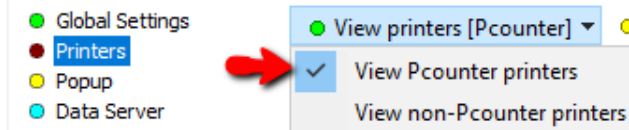
- 3) Once the Pcounter configuration window is displayed, click on the 'Printers' bullet.
- 4) Highlight all desired printers to be converted, right click them, and choose 'Pcounter IP Port Migrator'.



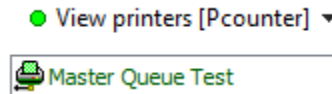
- 5) In the Pcounter IP Port Migrator window a SNMP query of each printer will begin. Please be patient, if many printers were selected this may take some time.
- 6) If a printer is shown as 'unknown' remove it from the list with the button at the top of the window and then go back and examine the print queue's Port settings.
- 7) If all printers are good to go, click 'Migrate all ports' to create a Pcounter Port for every printer.



- 8) Back in Pcontrol > Server Configuration > Printers, change view to Pcounter Printers by choosing View Printers > View Pcounter printers.



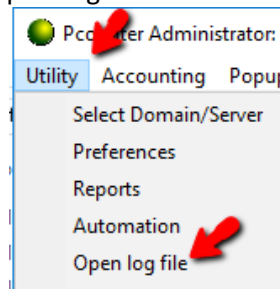
- 9) All migrated printers will appear in this list in green font. Passive logging is now enabled for every printer in green font in the Pcounter printers list.



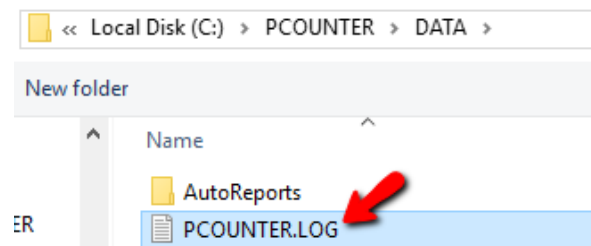
2.4.2.0 Test Passive Logging

Test a Pcounter enabled printer by printing a test page and then using Pcounter Administrator to view the log file and confirm the job is logged.

- 1) In the previous section printers were migrated into Pcounter with default settings, effectively enabling passive logging.
- 2) Send a test page to one of the printers that are now in the Pcounter printer list and confirm the job prints successfully.
- 3) Open Pcounter Administrator. This can be done in the Start Menu or by browsing to C:\Program Files (x86)\Pcounter for NT\NT and launching Padmin.exe.
- 4) Once in Padmin, go to Utility > Open Log File.



- 5) Choose the Pcounter.log file and click Open to run the report.



- 6) Locate the test page that was sent in the log to confirm passive logging is working as expected on the enabled print queues.



- 7) For more info on running reports please see our Pcounter Administrator training video part 2 online at: <https://youtu.be/5jLsOj4tKJw>

2.5.0.0 - Real-time Accounting & Logging (Prices & Balances)

In addition to logging all print job info, Pcounter can also do real-time accounting with prices and user balances. Pcounter can be configured to stop users from printing when they run out of balance.

2.5.1.0 - Determine Initial Cost, User Balances, & Free Quota

Some planning is involved when using Pcounter print accounting. Before anything can be done it must be determined what the cost of a print job will be for each printer, what the user's starting balance will be if any, and whether to use Free Quota in addition to Balance.

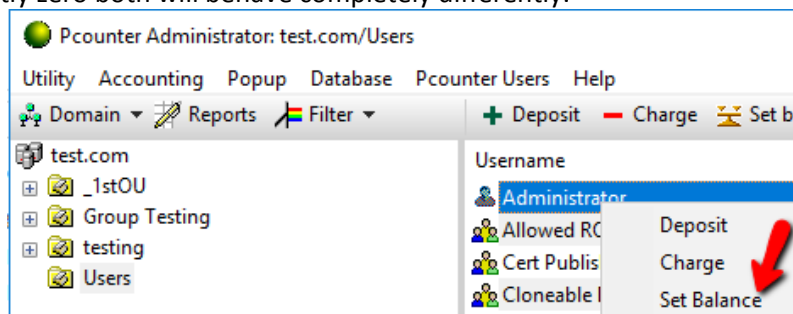
Free Quota is a 2nd balance pool for each user. The cost of a job always come out of Free Quota first.

Then once depleted the cost of jobs will go to the user's Balance. This is frequently used in Academia to provide a certain amount of free printing on a monthly or yearly schedule.

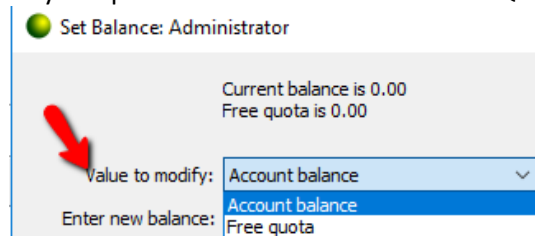
2.5.2.0 - Set Balances\Free Quota

First, set a Balance and or Free Quota for at least some test users.

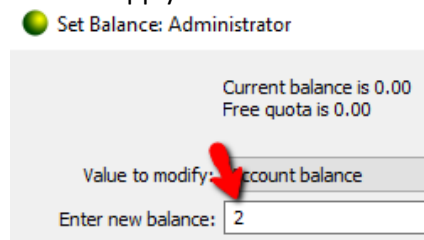
- 1) Open Pcounter Administrator and browse the Domain or Workgroup to find your test user(s).
- 2) Right click the test user and choose 'Set Balance' to set an amount, or Deposit to add an amount. If the balance is currently zero both will achieve the same result, but if the balance is not currently zero both will behave completely differently.



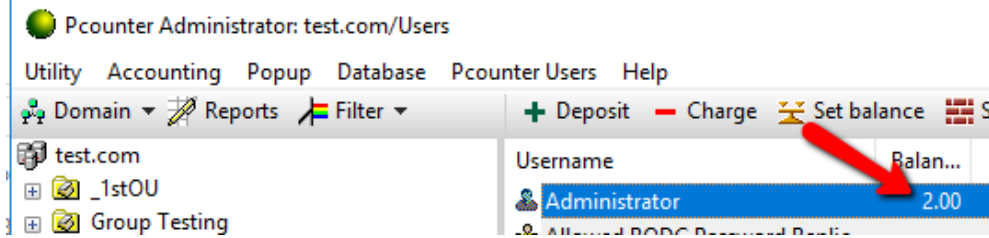
- 3) Click the 'Value to modify' dropdown to choose between Free Quota and Balance.



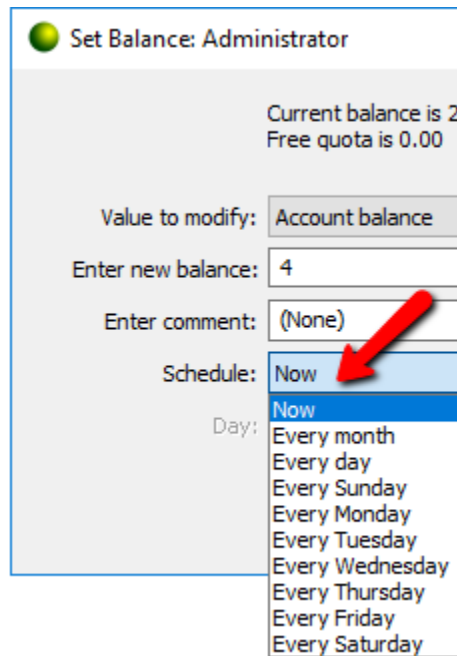
- 4) Set a balance value and click OK to apply now.



- 5) This balance can now be viewed when the user is selected in Padmin.
- 6) The balance is also now available for printing.
- 7) Repeat as needed on users, groups, and OU.



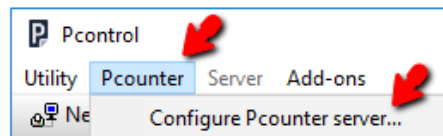
- 8) Please make note that these balance changes can all be automated using the scheduling dropdown.



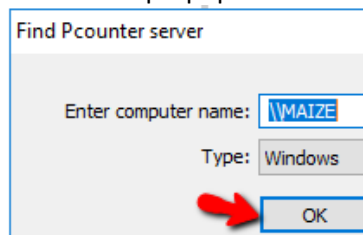
2.5.3.0 - Migrate Printers

If all printers are not currently using a Pcounter Port and are not visible in the Pcounter Printers list in Pcontrol then they must be migrated into Pcounter. This is the same process as in section 4.1.0 of this guide.

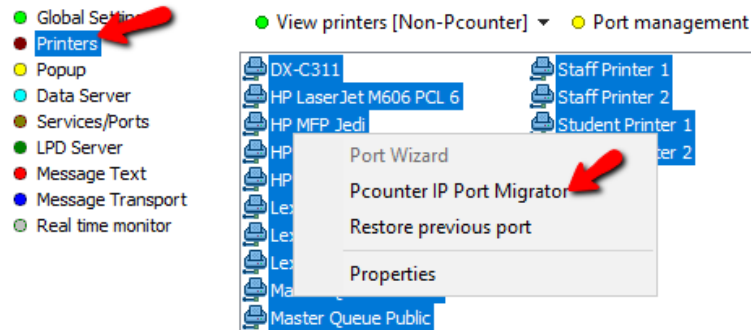
- 1) From the main Pcontrol Window, click at the top where it says Pcounter, and then 'Configure Pcounter Server'.



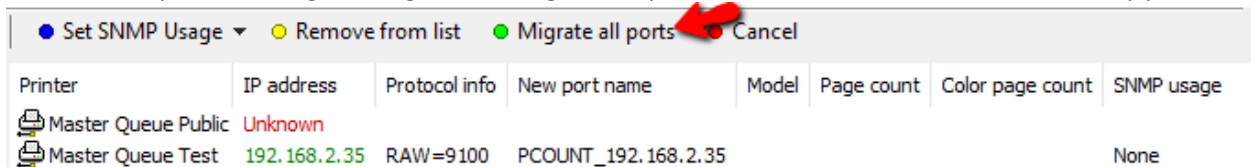
- 2) The name of the Pcounter server will be prepopulated. Just click OK to open the next window.



- Once the Pcounter configuration window is displayed, click on the 'Printers' bullet.
- Highlight all desired printers to be converted, right click them, and choose 'Pcounter IP Port Migrator'.



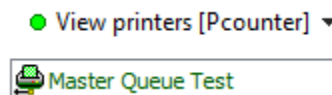
- In the Pcounter IP Port Migrator window a SNMP query of each printer will begin. Please be patient, if many printers were selected this may take some time.
- If a printer is shown as 'unknown' remove it from the list with the button at the top of the window and then go back and examine the print queue's Port settings.
- If all printers are good to go, click 'Migrate all ports' to create a Pcounter Port for every printer.



- Back in Pcontrol > Server Configuration > Printers, change view to Pcounter Printers by choose View Printers > View Pcounter printers.



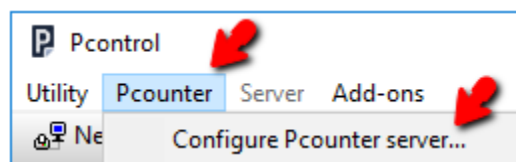
- All migrated printers will appear in this list in green font. Logging is now enabled for every printer in green font in the Pcounter printers list.



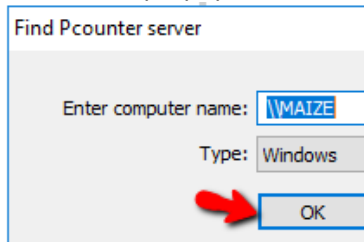
2.5.4.0 - Set Accounting Mode & Prices

Once printers have all been migrated they can now be set to real time accounting mode and have prices set.

- From the main Pcontrol Window, click at the top where it says Pcounter, and then 'Configure Pcounter Server'.



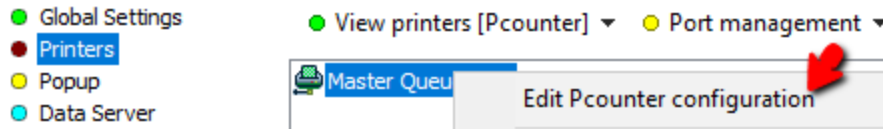
- The name of the Pcounter server will be prepopulated. Just click OK to open the next window.



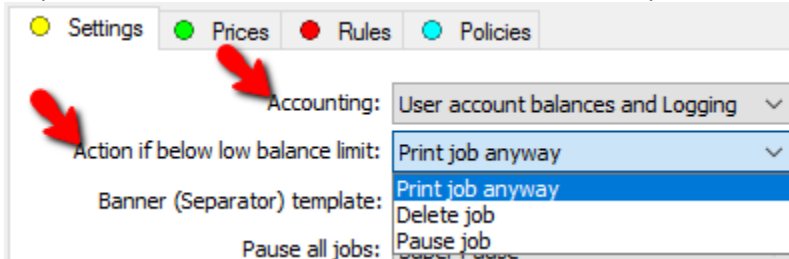
- Click on the Printer bullet, change view to Pcounter Printers by choosing View Printers > View Pcounter printers.



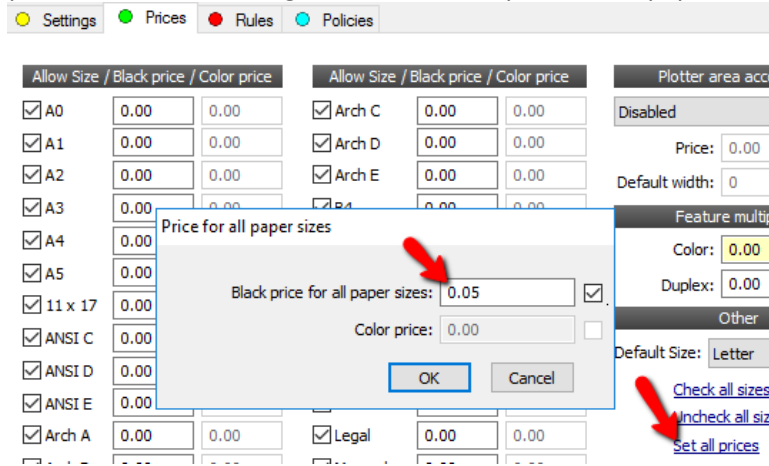
- Highlight all desired printers to be configured, then right click them and choose 'Edit Pcounter configuration'.



- In the Settings tab, set the Accounting dropdown to 'User account balances and logging' and then set the desired action for when the user runs out of both balance and free quota by selecting an option for the 'Action if below low balance limit' dropdown.



- Click on the Prices tab at the top.
- If these are color printers click 'Enable color detection' at the bottom right. If they are BW leave at default.
- Click 'Set all prices' at the bottom right and then set a price for all paper sizes.

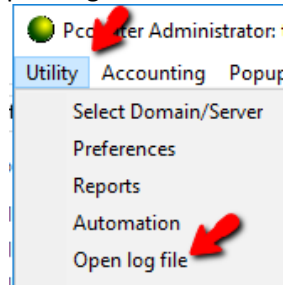


- Click OK to apply these settings to all selected printers.

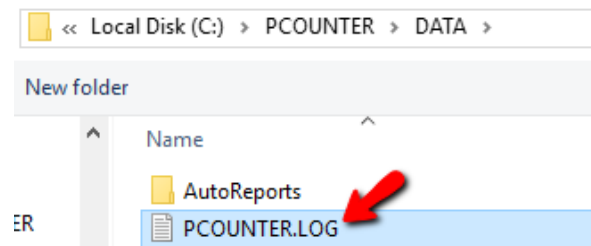
2.5.5.0 - Test Accounting

Test accounting by printing to a Pcounter enabled printer and then using Pcounter Administrator to view the log file and confirm the job is logged, as well as that the user's balance has been deducted.

- 1) In the previous section printers were migrated into Pcounter, prices were set, and user balances were set.
- 2) Make a note of the currently logged in user and then send a test page to one of the printers that are now in the Pcounter printer list and confirm the job prints successfully.
- 3) Open Pcounter Administrator. This can be done in the Start Menu or by browsing to C:\Program Files (x86)\Pcounter for NT\NT and launching Padmin.exe.
- 4) Once in Padmin, go to Utility > Open Log File.



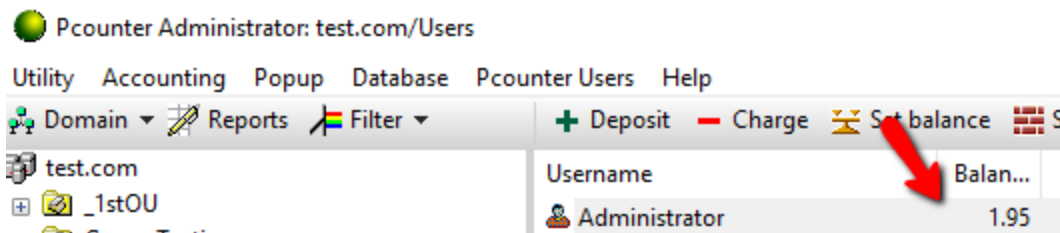
- 5) Choose the Pcounter.log file and click Open to run the report.



- 6) Locate the test page that was sent in the log to confirm passive logging is working as expected on the enabled print queues.

```
TEST\Administrator      Test Page      \\WESTLINK\Portserver      06/30/2017 13:53:32
```

- 7) Back in Padmin > User Accounting, view the test user to confirm their account balance has been reduced.



- 8) For more info on running reports please see our Pcounter Administrator training video part 2 online at: <https://youtu.be/5jLsOj4tKJw>

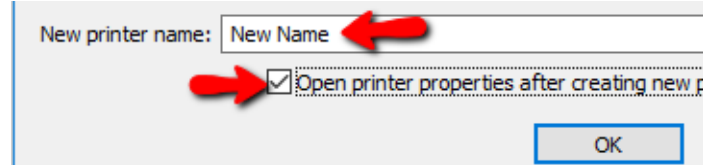
2.6.0.0 - PcounterWin2x Documentation

Our Pcounter Documentation that covers every feature and interface of Pcounter for Windows 2.x is online at: <http://apps.pcounter.com/docs/pcounterwin.pdf>

2.7.0.0 - Cloning Printers

Pcontrol.exe can be used to quickly clone print queues. To do so:

- 1) Open Pcontrol and expand the quick server list, then expand the server to view all print queues.
- 2) Right click any print queue and choose Clone.
- 3) Type a new name in the field and click OK, making sure the box is checked to display properties.



- 4) Go to the Ports tab and give the printer a new port to complete the cloning process.

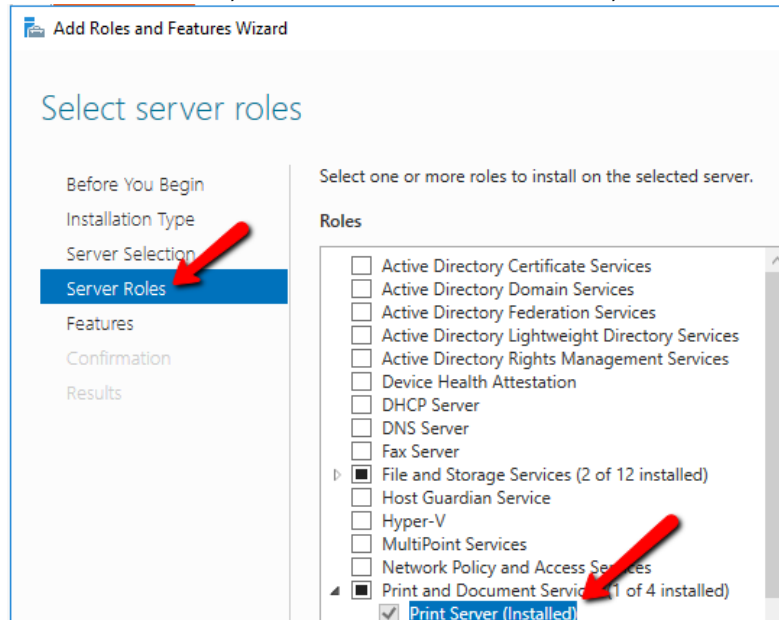
3.0.0.0 - Install New Pcounter for Window 3.x Server

3.1.0.0 - Prepare Print Server

The Windows 'Print Server' Role and '.Net Framework 3.5' Feature must both be installed on the Print server where Pcounter for Windows will be installed.

3.1.1.0 - Install Print Server Role

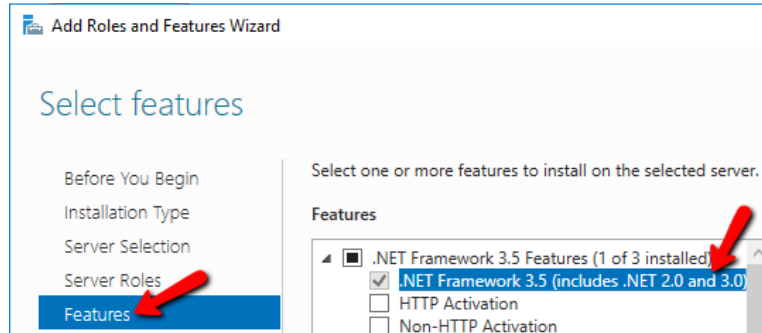
This is a very straightforward process and likely has been done previously if this is not a fresh server. To install the Print Server Role, go to Server Manager > Add Roles and Features Wizard > Server Roles, expand 'Print and Document Services', check the box for 'Print Server', then click Next, and Install.



3.1.1.2 - Install .Net Framework 3.5

This is also a very straightforward process and likely has been done previously if this is not a fresh server.

To install .Net Framework 3.5, go to Server Manager > Add Roles and Features Wizard > Server Roles > Features, expand '.Net Framework 3.5 Features', check the box for '.Net Framework 3.5', and click Install.



3.2.0.0 - Print Queue Creation Overview

Very often Pcounter for Windows is used to track print queues that reside on the server where Pcounter is installed. Pcounter does not create these print queues automatically however, they must be created by the server's administrator. This is not a function of Pcounter or a support process that we assist with normally, however we do provide detailed info on how this is normally done.

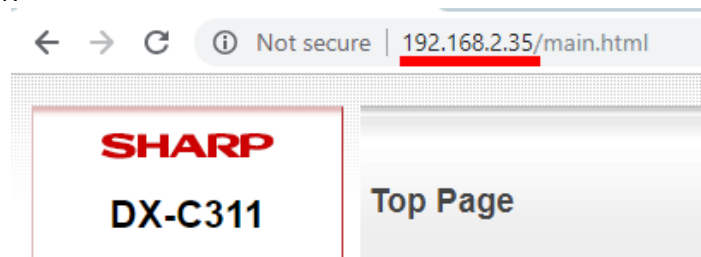
3.2.1.0 - Print Queue Creation Process

3.2.1.1 - Ping & Browse Printer's IP

- 1) First the printer must be connected to the Network, powered on, and reachable by the server. Test communication from the server to the printer using the 'Ping' command.

```
C:\Users\administrator.TEST>ping 192.168.0.27  
  
Pinging 192.168.0.27 with 32 bytes of data:  
Reply from 192.168.0.27: bytes=32 time<1ms TTL=128
```

- 2) Another way to confirm the printer is online and using the right IP is to browse to its IP address in a web browser. Many printers have internal web engines and will display a UI containing their model number.



3.2.1.2 - Install Print Driver

- 3) Once certain of the model number and connectivity, download the very latest model specific or universal/global type 3 print driver available for that model on the manufacturer's official website.

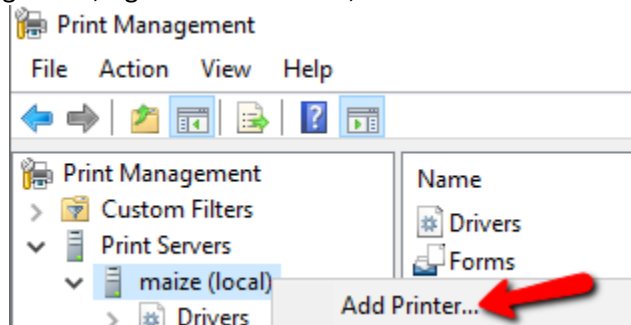
The screenshot shows a web interface for downloading drivers. On the left, a 'Quick Picks' sidebar lists categories: All (6), Drivers (5), WHQL (5), PostScript (2), Global / Mobile (5), PCL (3), V4 Driver (2), V3 Driver (3), and Utilities & Applications (1). The main area has filters for 'Operating System' (Windows 10 x64) and 'Language' (English (N. America)). Below the filters, two driver listings are shown, both dated Jun 28, 2018, with version 5.617.7.0 and size 35.2 MB. The first listing is 'V3 Xerox Global Print Driver PCL5' and the second is 'V3 Xerox Global Print Driver PCL6'. A red arrow points to the 'Operating System' dropdown, and another red arrow points to the 'V3 Driver' link in the second listing.

- 4) Pcounter Support recommends installing all driver files to a path like C:\Drivers*specific driver*

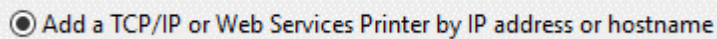
3.2.1.3 - Create Print Queue

Please use Windows's Print Management MMC to do any print queue administrator tasks. To install a print queue.

- 1) Open Print Management, right click the server, and choose 'Add Printer'.

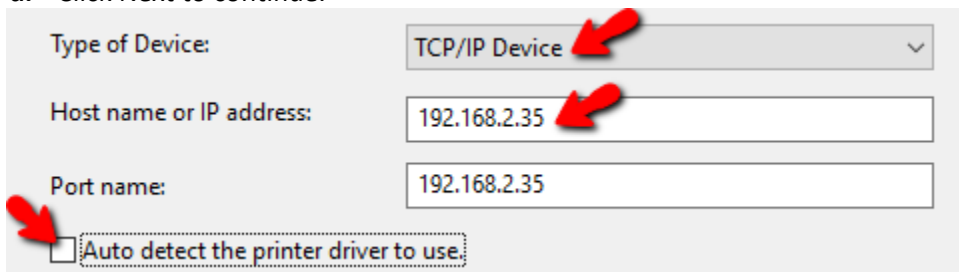


- 2) Choose 'add a TCP/IP or Web Services Printer by IP...' and click Next.

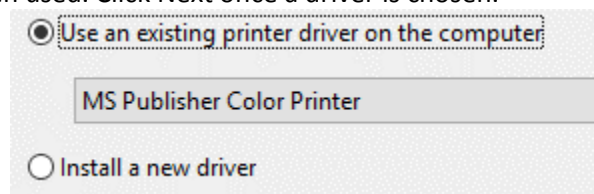


- 3) In this window:

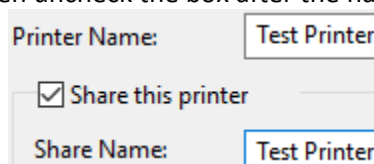
- a. Change Type to TCP/IP Device
- b. Type the IP in its field.
- c. Uncheck box for 'auto detect the print driver...'
- d. Click Next to continue.



- 4) Click Next on the 'additional port info...' screen if displayed.
- 5) Choose a driver from the list of drivers that have been used previously or specify a new driver that has never been used. Click Next once a driver is chosen.



- 6) Type a Printer Name and Share Name that match exactly. If the printer should not be shared then uncheck the box after the names match.



- 7) Click Next, Next, and then Install to create the printer and complete the process. Repeat as needed until all printers are created.

3.3.0.0 - Prepare Database Server

SQL, Oracle, and MySQL all three have preparatory steps to take that vary greatly. Please read only the chapter that corresponds to the database server type already in use in the environment. If one of the three database servers listed are not already installed then Pcounter 2.x should be used instead of 3.x

3.3.1.0 - MySQL Server Preparation

This chapter is for **MySQL** server preparation.

If using Oracle or SQL, please use their corresponding chapters.

- 1) It will be necessary to create or modify users and privileges which can connect to the Pcounter database, using MySQL Workbench.
- 2) Open the MySQL Workbench and browse to Management > Users and Privileges
- 3) Either "Add Account" (create a new user such as "pcounter") or select an already created user, other than root.
- 4) Under the "Login" tab, set the user's password.
- 5) Under the "Administrative Roles" tab, grant all privileges.
- 6) Under the "Schema Privileges" tab, select all and save.

3.3.2.0 - Oracle Client Side Preparation

This chapter is for **Oracle** client/server preparation.

If using MySQL or SQL, please use their corresponding chapters.

These are notes for configuration on a client machine, ie. Oracle is running on a remote server.

This process assumes the value "Global Database Name" is set to "orcl", and "System Identifier" (SID) is set to "orcl".

- 1) Install the Oracle Instance Client.
- 2) If needed, create a NETWORK directory, then within that directory create an ADMIN directory, and then create and configure your "tnsnames.ora" file. For example, start in the path D:\app\username\product\11.2.0\client_1 (where D: is the drive where the Oracle software is installed).
Example full path: D:\app\username\product\11.2.0\client_1\NETWORK\ADMIN\tnsnames.ora

- 3) Typical tnsnames entry to connect to remote database:

```
-----  
ORCL_REMOTE =  
  (DESCRIPTION =  
    (ADDRESS_LIST = (ADDRESS = (PROTOCOL = TCP)(HOST = OracleServerIP)(PORT = 1521)))  
    (CONNECT_DATA = (SERVICE_NAME = ORCL))  
  )  
-----
```

- 4) Edit the Registry settings for Oracle and ODBC; make sure the settings point to correct drivers.

(xxxx = version numbers)

```
HKEY_LOCAL_MACHINE  
  ODBC  
    ODBC.INI  
    ODBCINST.INI  
  
  ORACLE  
  
  Wow6432Node  
    ODBC  
      ODBC.INI  
      ODBCINST.INI  
      MySQL ODBC xxxxx  
      Oracle in Oraxxxxx  
      SQL Server Native...  
-----
```

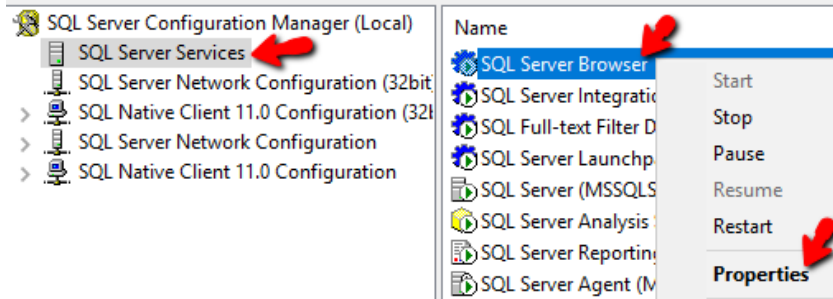
3.3.3.0 - SQL Server Preparation

This chapter is for **SQL** server preparation.

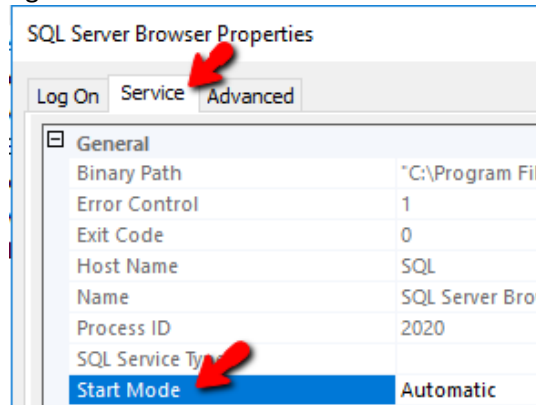
If using Oracle or MySQL, please use their corresponding chapters.

3.3.3.1 - Configure SQL Browser Service & TCP Settings

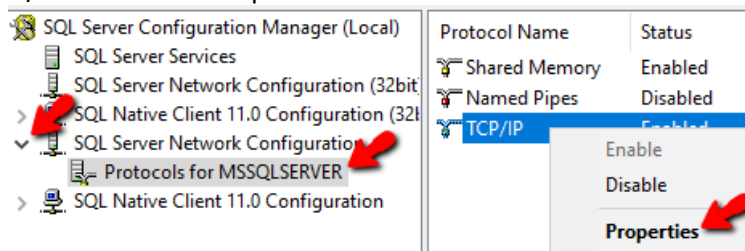
- 1) Open the 'SQL Server Configuration Manager' (not the same as the SQL Mgmt Studio).
- 2) In SQL Server Services, right click SQL Server Browser, and choose Properties.



- 3) In the Log on tab, click start to start the SQL Server Browser service.
- 4) In the Service tab, change the Start Mode to Automatic and click OK to close the window.

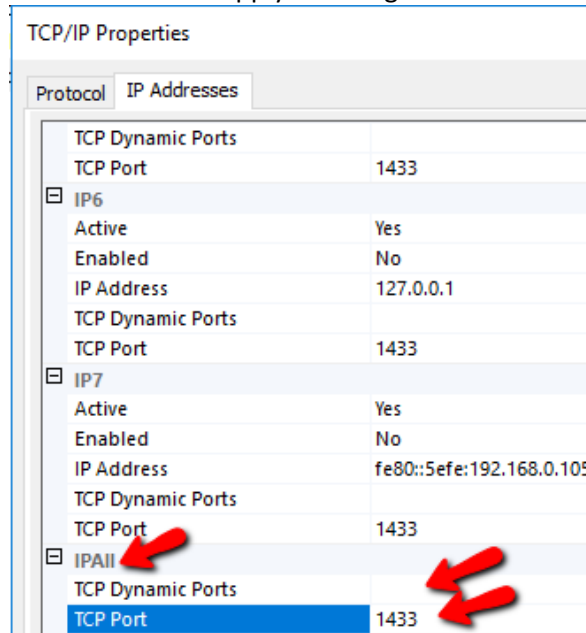


- 5) From the main 'SQL Server Configuration Manager' window, expand 'SQL Server Network Configuration' then click on 'Protocols for SERVERNAME'.
- 6) Right click TCP/IP and choose Properties.



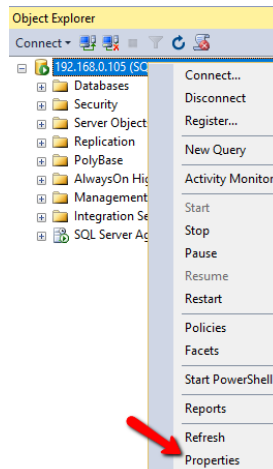
-continued on next page-

- 7) In the Protocol tab set 'Enabled' to 'Yes'.
- 8) In the IP Addresses tab, scroll to the very bottom and find the section 'IPAll'.
- 9) Set 'TCP Dynamic' to nothing. Clear the field and set no character.
- 10) Set 'TCP Port' to 1433 and click OK to apply all changes.

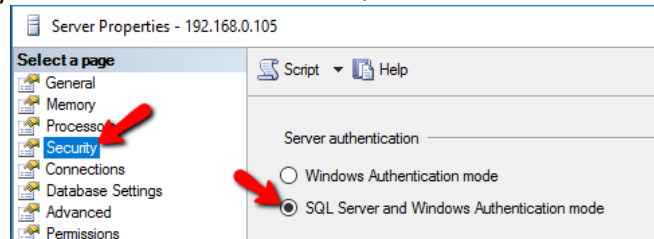


3.3.3.2 - Enable Mixed Authentication Mode & Allow Remote Connections

- 1) Open the 'Microsoft SQL Server Management Studio' and login as a root level admin account.
- 2) In the object explorer right click the server and choose properties.

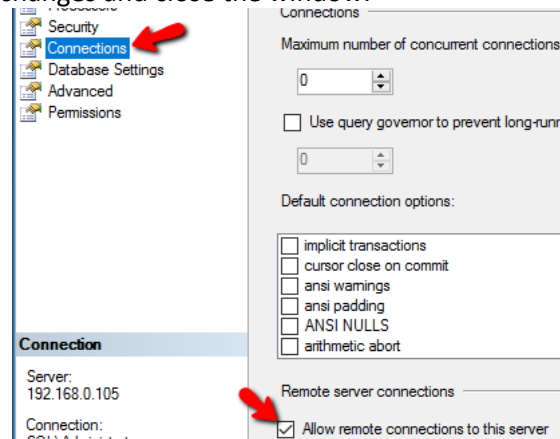


- 3) Choose 'Security' then select the bullet for 'SQL Server & Windows Authentication Mode'.



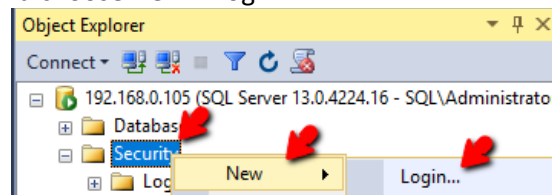
-continued on next page-

- Next choose 'Connections' then check the box for 'Allow remote connections to this server'. Click OK to apply all changes and close the window.

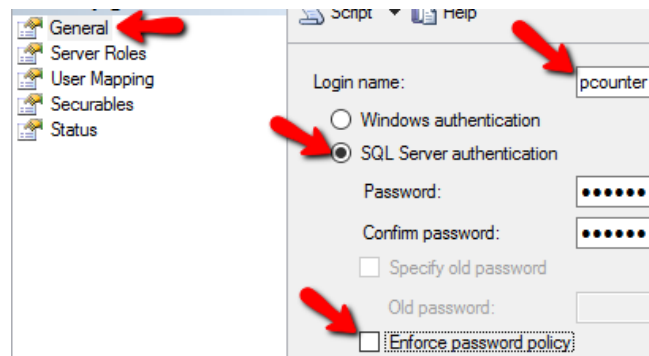


3.3.3.3 - Create Pcounter SQL User

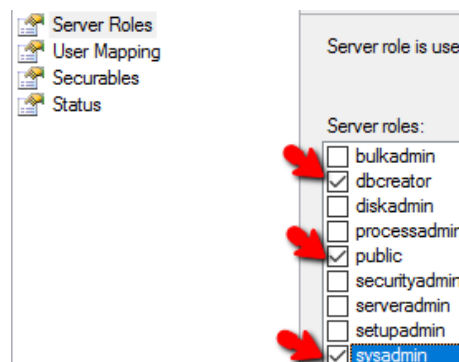
- Open the 'Microsoft SQL Server Management Studio' and login as a root level admin account.
- Right click Security and choose New > Login.



- In the General tab of the window that opens, set the login name to **Pcounter**, set the bullet to **SQL Server authentication**, type the **password**, and uncheck the box for 'enforce password policy'.



- In Server Roles, check the boxes for dbcreator, public, and sysadmin. Click OK to complete the process.

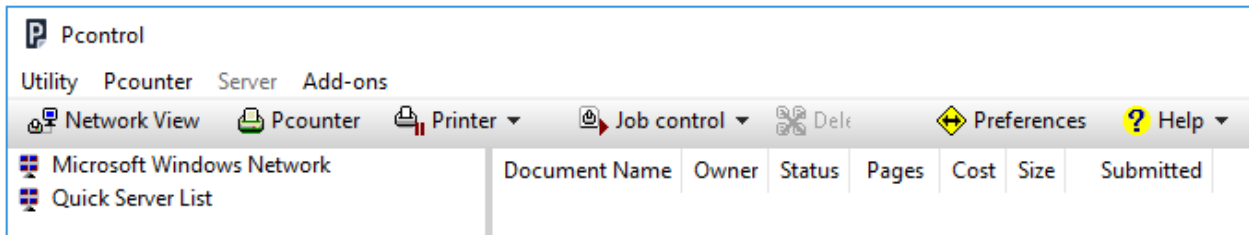


3.4.0.0 - Install Pcounter for Windows 3.x

Now that the server is prepared, and print queues are installed, Pcounter for Windows is ready to be downloaded, installed, and configured.

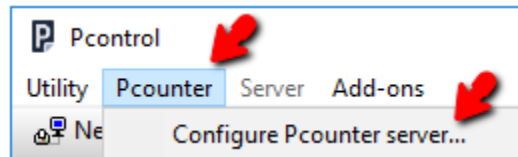
3.3.1.0 - Download & Install Pcounter

- 1) Download the latest version of Pcounter for Windows 3.x at: www.pcounter.com/download
- 2) Run the installer on the Print Server and take the defaults unless the path must be customized.
- 3) The first thing to do when Pcounter is installed is open Pcontrol. This can be done through the Start Menu, or by browsing to C:\Program Files (x86)\Pcounter for NT\ and launching Pcontrol.exe.

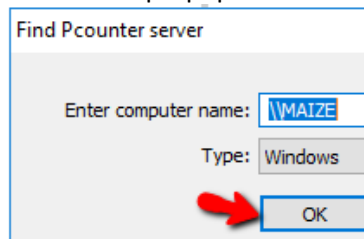


3.3.2.0 - Configure Database Connection & Install Pcounter Data Service

- 1) From the main Pcontrol Window, click at the top where it says Pcounter, and then 'Configure Pcounter Server'.



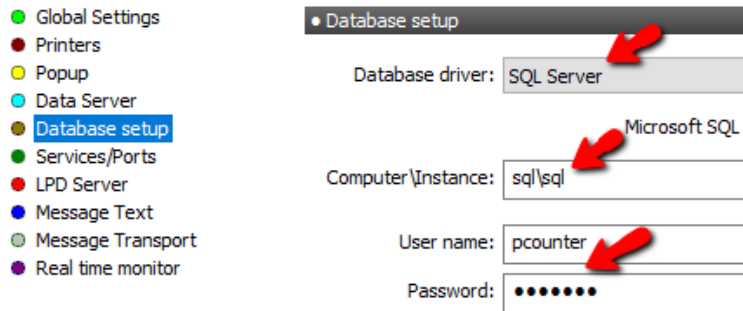
- 2) The name of the Pcounter server will be prepopulated. Just click OK to open the next window.



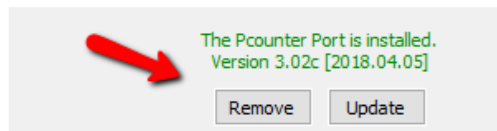
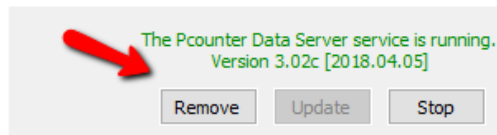
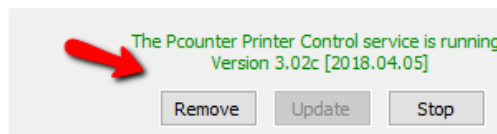
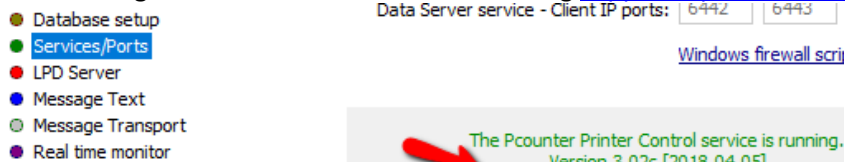
- 3) Once the Pcounter server configuration window is displayed, click on the Database setup bullet.

-continued on next page-

- 4) Set the Database driver to SQL Server.
- 5) In Computer\Instance enter the name of the server that has the SQL database running, a backslash, and then the name of the SQL instance.
- 6) Do not click Test/Status yet.

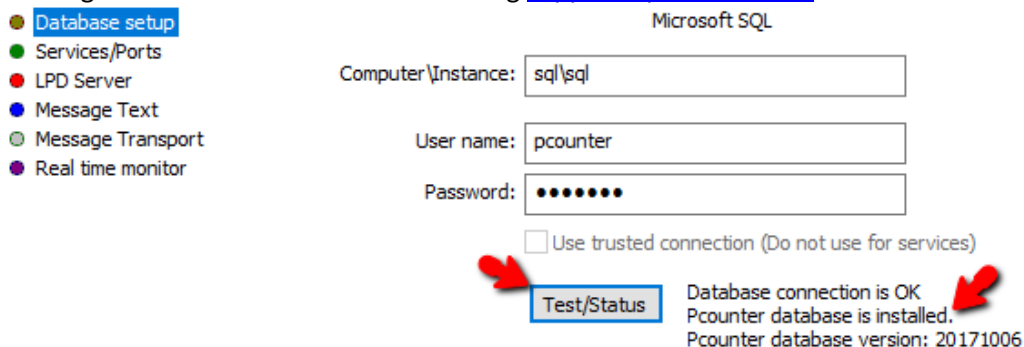


- 7) Next, click on the Services/Ports bullet. Install both services and the Pcounter Port. If there is an issue include an image of the error shown when emailing support@pcounter.com.



3.3.2.0 - Test Database Connection

- 1) Return to Pcontrol > Server Configuration > Database Setup.
- 2) Credentials should already be populated and the Pcounter Data service installed and running after completing section 3.3.1.0.
- 3) Click Test/Status to confirm that the Pcounter Database is installed. If there is an issue include an image of the error shown when emailing support@pcounter.com.



4.0.0.0 - Change Pcounter 2.x to Pcounter 3.x

It is **very important** to understand that Pcounter for Windows 2.x and Pcounter for Windows 3.x are **identical** except that **2.x does not** require a SQL\Oracle\MySQL database server, and **3.x does** require a SQL\Oracle\MySQL database server. **One is not newer than the other and major revisions of both versions are released simultaneously.**

Pcounter **2.x** is easier to install, configure, and maintain. Its only weakness is that it does not allow for the use of a database server. **Always use Pcounter 2.x unless** a database server is required by the environment.

Pcounter **3.x** is more challenging to install, configure, and maintain. Its **only strength** is that it supports SQL\Oracle\MySQL and in some environments this is a requirement due to size, security, and other reasons.

Please understand the differences between Pcounter 2.x and Pcounter 3.x before choosing which one is best for the environment and before proceeding with an installation or server change.

4.1.0.0 Insert Registration

For a detailed, step by step walkthrough please see our 'How to Register' video online at:

<https://youtu.be/DKHMeept3JA>

4.2.0.0 Update Existing Server to Latest 2.x

If updating from 2.88 and older, please see section 5.1.0.0-5.1.5.0 for the steps to update to the latest version of Pcounter 2.x.

If updating from 2.90 and newer, please see our Pcounter Upgrade video online at:

<https://youtu.be/6fs1enfJbLU>

4.3.0.0 Install Latest 3.x

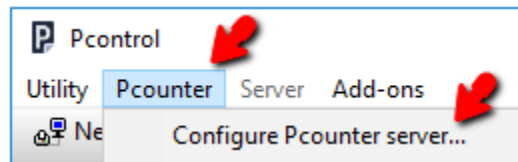
Now that Pcounter is at the latest version of 2.x it can be changed to 3.x.

Download and install the latest Pcounter for Windows 3.x package from www.pcounter.com/downloads

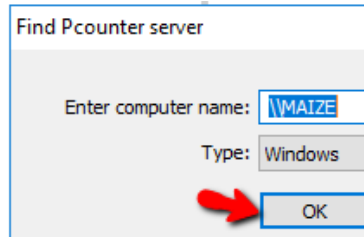
-continued on next page-

4.4.0.0 Configure Database Connection & Update Pcounter Data Service

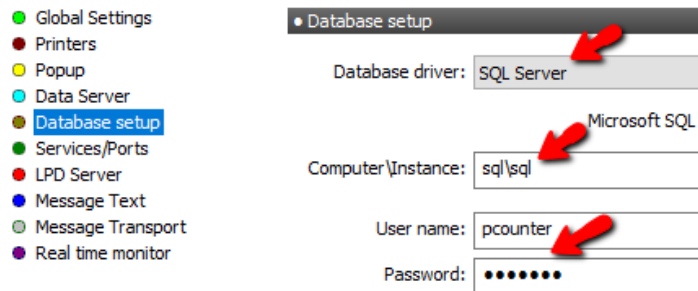
- 1) From the main Pcontrol Window, click at the top where it says Pcounter, and then 'Configure Pcounter Server'.



- 2) The name of the Pcounter server will be prepopulated. Just click OK to open the next window.



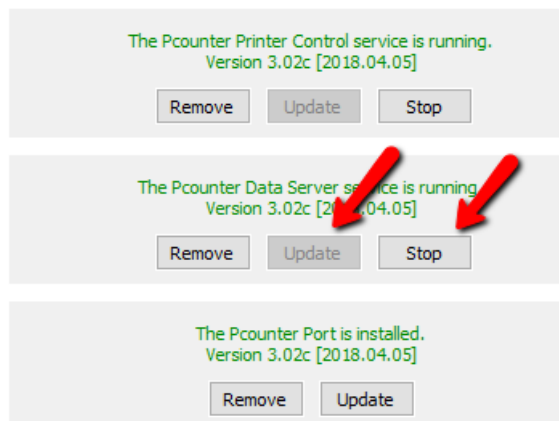
- 3) Once the Pcounter server configuration window is displayed, click on the Database setup bullet.
- 4) Set the Database driver to SQL Server.
- 5) In Computer\Instance enter the name of the server that has the SQL database running, a backslash, and then the name of the SQL instance.
- 6) Do not click Test/Status yet.



- 7) Next, click on the Services/Ports bullet. Stop the Pcounter Data service and click the Update button. If there is an issue include the error shown when emailing support@pcounter.com.

- Database setup
- Services/Ports**
- LPD Server
- Message Text
- Message Transport
- Real time monitor

[Windows firewall script](#)



5.0.0.0 - Upgrading Pcounter for Windows

5.1.0.0 - Upgrade Pcounter for Windows 2.90\3.x & Newer

This section is for upgrading any build of Pcounter 2.90 and Pcounter 3.x, as well as any builds released in the future.

The same update process is used by both Pcounter for Windows 2.9x \ 3.x and newer.

For a detailed, step by step walkthrough please see our Pcounter Upgrade video online at:

<https://youtu.be/6fs1enfJbLU>

5.2.0.0 - Upgrade Pcounter for Windows 2.88 & Older

This section is for upgrading Pcounter versions 2.88 and older.

When upgrading 2.8x to the latest version of 2.9x/3.x all other Pcounter Software and any deployed popup clients must first be updated.

The final step is to update the Pcounter services in Pcontrol > Services/Ports.

Please do not skip any sections in the process from 5.2.1.0 to 5.2.5.0.

5.2.1.0 Insert Registration

For a detailed, step by step walkthrough of this step please see our 'How to Register' video online at: <https://youtu.be/DKHMeept3JA>

5.2.2.0 Update Other Pcounter Software

If Pcounter Station or any Pcounter Embedded software is in use, they must all be updated before updating Pcounter.

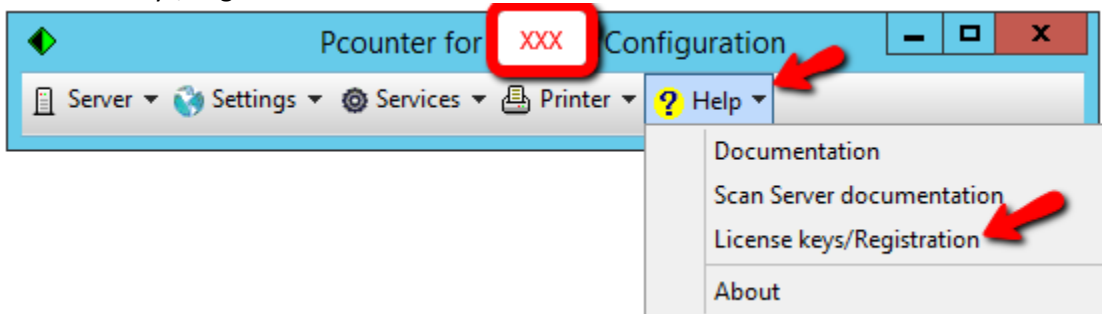
5.2.2.1 Update Pcounter Station

Please update Pcounter Station to the latest version as shown in section 2.1.0 of the PStation guide located online at: https://apps.pcounter.com/docs/Pstation_Guide.pdf

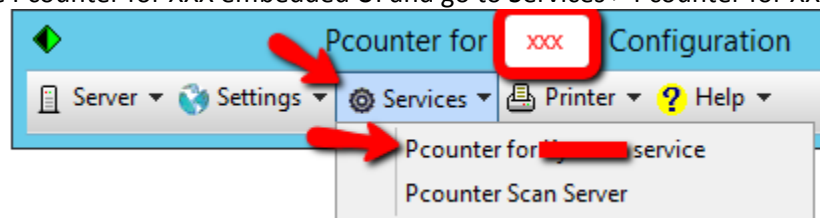
All PStation settings will be retained after the upgrade.

5.2.2.2 Update Pcounter Embedded for Xerox, HP, Kyocera, Lexmark, and Sharp

- 1) Please support@pcounter.com for a link to the latest version of the software and of the latest Embedded registration number for the server being updated. Please include the server name in the email.
- 2) To insert the registration number, open the Pcounter for XXX embedded UI and go to Help > License Keys/Registration and insert the latest license for that server.



- 3) Install the latest Pcounter Embedded package on the Pcounter.
- 4) Open the Pcounter for XXX embedded UI and go to Services > Pcounter for XXX Service.



- 5) In the Service window, click Stop > Update > Start. The date should change to reflect the date in the package name.

5.2.3.0 Install Pcounter Package

Download and install the latest version of the Pcounter for Windows package (either 2.x or 3.x depending on the environment), but **do not** update the Pcounter services yet:

www.pcounter.com/downloads

5.2.4.0 Update Popup Clients

Ensure sections 5.1.0.0 - 5.1.3.0 **are all complete** before this continuing with this section.

All workstations running ppopup.exe, pcounterclient.exe, and/or pcounterclient.dmg must be updated to the latest version before updating the Pcounter services. The older popup client will be unable to connect to the server when the services are updated if it is not replaced with the newer popup client from the server.

After installing the latest Pcounter package the newly updated PcounterClient.exe, PPopup.exe, and PcounterClient.dmg files on the server can be used to update all workstations running popup.

- 1) The default location for the popup client files on the server is C:\Program Files (x86)\Pcounter for NT\NT\Client.
- 2) The new popup clients will work normally with the Pcounter services that are still running on the server.
- 3) Please see our Pcounter distribution guide for info on distributing the popup: http://apps.pcounter.com/docs/pcounter_distribution_guide.pdf
- 4) Pcounter does **not** provide a mechanism for deploying the popup clients, we provide documentation only for this process.

5.2.5.0 Update Pcounter Services

The final step is to update the Pcounter Services as shown in our Pcounter Upgrade video from 1:40 to 2:41: <https://youtu.be/6fs1enfJbLU?t=1m40s>

6.0.0.0 - Documentation and Video Links

This concludes the guide. If there are any questions, please email support@pcounter.com.

Links to recommended Pcounter documents and videos:

All Pcounter Videos:

<https://www.youtube.com/user/andtechsf>

Pcounter for Windows 2.x - Primary Documentation:

<http://apps.pcounter.com/docs/pcounterwin.pdf>

Pcounter for Windows 2.x - Primary Documentation:

<http://apps.pcounter.com/docs/pcounterwin3x.pdf>

Pcounter for Windows - Install, Change, & Upgrade Guide:

<http://apps.pcounter.com/docs/pcounterwin3x.pdf>

Pcounter for Windows - Old Video - Prepare, Install, Configure:

<https://www.youtube.com/watch?v=hyOaYOnVp3k>

Pcounter Client and Printer Distribution Guide :

http://apps.pcounter.com/docs/Pcounter_Distribution_Guide.pdf

Pcounter WebPrint Installation and Customization Guide:

http://apps.pcounter.com/docs/Pcounter_webprint_Guide.pdf

Pcounter Administrator Training Video Part 1:

<https://www.youtube.com/watch?v=FxwmXCE6ebU>

Pcounter Administrator Training Video Part 2:

<https://www.youtube.com/watch?v=5jLsOj4tKJw>

Pcounter Popup Training Video:

<https://www.youtube.com/watch?v=chSbuDZJlhQ>

Pcounter Station - Installation and Troubleshooting Guide:

http://apps.pcounter.com/docs/pstation_guide.pdf

Pcounter for Windows - Balance.exe as a Web App:

https://www.youtube.com/watch?v=J_IVgsgopnI