

# **Pcounter Station**

**Win32 Printer Accounting Release Station  
for  
Windows and NetWare networks**

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# Requirements

## Software Requirements

- Windows 95, 98, ME, NT 4.0, or 2000 with Internet Explorer 4.x or later.
- Pcounter for NT account balance support on Win9x platforms require 2 DLLs, **RADMIN32.DLL** and **RLOCAL32.DLL**. These DLLs are included with the Windows NT Server Tools for Windows 95. They can be found on the Windows NT Server 4.0 CD, in the **\CLIENTS\SRVTOOLS\WIN95** directory. They can also be downloaded from <http://www.microsoft.com/windows/downloads/bin/W95nexus.exe>. The CD versions are more recent. If the Active Directory Client Extension for Win9x is installed, then these DLLs will already be present.
- NetWare support requires Novell Client 32.
- Pcounter running on the print server in order for cost of print jobs to be calculated, and/or to automatically pause jobs in print queues.

**Note:** all references to Windows NT also apply to Windows 2000.

## Hardware Requirements

- A CPU fast enough and sufficient RAM to run the OS efficiently.
- If **Remote to local printing** is being used, enough disk space to store 2 jobs for each local printer.

## Overview

Pcounter Station is printer accounting release station software which runs on a dedicated Windows PC, to be used in controlled or pay-to-print environments. After users send print jobs from other workstations, they can approach the station, select the jobs they wish to send to the printer, and submit some form of payment through devices such as card readers or cash machines. Pcounter Station locks down the PC so that users cannot exit, and the Pcounter Station software is the only application which is shown on the computer's display.

Pcounter Station works with print queues hosted on Windows NT, Windows 2000, and NetWare. NetWare support includes NDS queues, Bindery queues, and NDPS printers.

Generally Pcounter for NT or Pcounter for NetWare should be running on the print server, in order to automatically pause/hold jobs, and to calculate the page counts and cost of print jobs.

Run **PSConfig.exe** to configure and setup Pcounter Station.

## Print queues

- Pcounter Station will display all jobs in the specified queues.
- **Specify a nickname** in order to display a “short” or “descriptive” name. If no nickname is configured, then Pcounter Station will display the full UNC path.
- Typically all jobs sent to these queues should be **paused or held by Pcounter**, so that when a user selects jobs for printing, Pcounter Station will remove the pause/hold and release the jobs to be printed.

### Required network permissions

<b>Windows NT/2000</b>	The logged on user requires <b>Manage Documents</b> permission to printers.
<b>NetWare queues</b>	The logged on user should be a <b>Queue operator</b> of each queue.
<b>NDPS printers</b>	The logged on user should be a <b>Printer operator</b> of each printer.

## **Global Settings**

These settings affect the overall operation of the Pcounter Station.

### **Language**

If Pcounter Station detects the default language as French, Spanish, German, or Dutch, it will use that language for all displays. Otherwise it will use English.

### **Program functionality**

- **Release station**  
Pcounter Station will be the only application available and locks down the desktop so that no other applications are accessible.
- **Operator console**  
Pcounter Station will run as a standard Windows application. It can be used as a simple printer operator utility. This setting should be used for testing the station.

### **Numerical format**

The numerical format determines how costs are displayed. The actual costs are specified in Pcounter printer/queue configurations and are discussed in more detail in the Pcounter documentation.

- **Currency**  
Accounting is kept in terms of local currency. The type and format of the local currency are determined from local Windows settings.
- **Units**  
Use this setting for devices which use their own accounting units, or if Pcounter is using the Numerical format = Pages setting.

## **User identification**

- **None (Show all print jobs)**

Print jobs from all users are shown at all times. Any user can select any job. This requires the most screen updates.

- **Job user list**

A list of print job owner names are shown, and only print jobs from the selected user are displayed. This can be more efficient and easier to navigate on busy networks.

- **Require net password**

Same as Job user list above, except that users are required to enter their network passwords before any print jobs are shown.

## **Requirements for Pcounter Station to authenticate network passwords**

- If the Novell Client 32 is installed, then the Pcounter Station is able to authenticate NetWare passwords without any additional configuration.
- In order to authenticate Windows NT/2000 passwords when the station is running Windows NT or Windows 2000, the computer on which the station is running must have a computer account created in the domain.
- In order to authenticate Windows NT/2000 passwords when the station is running Windows 9x, File and Print Sharing for Microsoft Networks must be activated, and User-level access control must be configured to reference the PDC or other NT or 2000 server where the user accounts are kept.

## **Refresh information every ??? seconds**

This is the number of seconds which will elapse between each refresh of the display, whether user names or print jobs are being shown. Making the interval too short will cause unnecessary network traffic.

## **Close dialogs after ??? seconds of inactivity**

If no user input has been detected, then all dialogs will be closed and/or users will be logged off of the station console after the specified number of seconds.

## **Only display jobs which are paused**

If this setting is enabled, then jobs which have been released will not be shown.

### **Display print job page counts and costs**

This setting requires Pcounter running on the print server with the **Count jobs in advance for display** setting enabled in the printer or queue's Pcounter configuration. Pcounter versions 5.11 (NetWare) or 2.06 (NT) or later are required. This allows users to see the cost of each print job so that they can determine whether they want it to be printed.

### **Only display jobs which have been counted**

If this setting is enabled, then jobs which have been released will not be shown.

### **Allow users to delete jobs**

If passwords are not required, then any user can delete any job. Disabling this setting prevents any job from being deleted at the Pcounter Station console.

### **Set exit password**

If an exit password is set, then Pcounter Station will require this password to be entered in order to shut it down.

## Appearance

- **Window title**  
The station's caption title bar can display any desired text.
- **Font**  
The station can use any font installed on the system. Larger point sizes can be automatically used for easier viewing without requiring configuration changes in Control Panel.
- **Display grid lines in print job list**  
Lines can be drawn between print jobs in the list.
- **Background setting**  
Requires the station to be locked down and **User Identification** to be set to **Job user list** or **Require net password**. This can be either a solid color background or a tiled background bitmap (in Windows BMP format).

## Automatic logon

It's important for the station to be able to logon to the system and/or network automatically so that the Pcounter Station can run with permission to perform necessary operations. There is a basic username and password which are used to access the local machine and/or Windows network.

If Novell Client 32 is installed, then an additional NetWare username and password are required.

# Accounting

## Accounting DLL

Custom accounting DLLs can be developed which interface to devices such as card readers or external databases which can be used to accept payment for printing. If no accounting DLL is configured, then paused/held jobs are released without question. Please contact A.N.D. Technologies for information on developing accounting DLLs for the Pcounter Station.

Only jobs which are paused or held will be passed to the DLL for accounting.

## Check account balances

If the Accounting DLL above is used, Pcounter Station can optionally check Pcounter account balances to see if users have sufficient Pcounter credit to print selected jobs. If Pcounter is deducting credit from user account balances as payment for print jobs, then this can make it possible for users to add credit directly to their accounts from the station using a card reader.

This feature requires that the Global setting **User identification** be either **Job user list** or **Require net password**.

**Pcounter for NT** - the Pcounter Data Server must be specified, and the logged on station user requires Read/Write permission to the Pcounter shared directory.

**Pcounter for NetWare** - the default file server where Pcounter global settings are stored must be specified, and the logged on station user must be granted attribute rights to modify account balances in NDS (press the ← Rights button).

If the Accounting DLL above is not used, Pcounter Station can still display the user's account balance for information purposes.

Pcounter for NT account balance support on Win9x platforms require 2 DLLs, **RADMIN32.DLL** and **RLOCAL32.DLL**. These DLLs are included with the Windows NT Server Tools for Windows 95. They can be found on the Windows NT Server 4.0 CD, in the `\CLIENTS\SRVTOOLS\WIN95` directory. They can also be downloaded from <http://www.microsoft.com/windows/downloads/bin/W95nexus.exe>. The CD versions are more recent.

## Setup System

Press the **Setup system** button to setup the required programs. Both Install and Uninstall options are supported here.

The Pcounter Station software can be configured on the system so that it will run at system startup.

If the Pcounter Station is running on Windows NT or Windows 2000, an additional software component can be installed which disables Ctrl-Alt-Del, taking effect at the next system startup.

## Secure Release

Pcounter Station can be setup in two ways such that users require passwords to access their pending print jobs - using network passwords or individual print job passwords.

### Network passwords

On the **Global Settings** page of the **Pcounter Station** configuration, set **User Identification = Require net password**. The user will be required to enter the password associated with his/her network account in order to access pending print jobs. This method should be used if print job owner names are to be preserved for recording by Pcounter.

### Individual print job passwords

This method should be used in situations where users are logged onto public computers with shared logon names, and jobs can be identified with a more descriptive username and/or password.

Pcounter 2.07 or later (NT/2000) or Pcounter 5.12 or later (NetWare) are required for support of these features.

- On the **Global Settings** page of the **Pcounter Station** configuration, **User Identification** can be set to **None (Show all print jobs)** or **Job user list**.
- **Pcounter Popup** (PPopup.exe) is required to be running on the workstations.
- In the **Pcounter server** configuration, on the **Popup** tab, set the **Window type = ID and Password**. **Password authentication** should be set to **Job ID - Job Password Optional** or **Job Password Required**.
- In the **Pcounter printer or queue** configuration, make sure that **Enable popup window** and **Keep job paused after popup** are selected. **Count jobs in advance for display** should be selected in order for Pcounter Station to show the page count and cost for each job.
- The user will use PPopup to enter a new username and password for each individual print job.
- If any print jobs require a release password, then they will have a **key icon** shown next to them in Pcounter Station's display. Jobs will not be released for printing if the job password entered at Pcounter Station is not the same as the password entered at the PPopup prompt.

## Remote to local printing

Pcounter Station supports secure methods of receiving print jobs from remote servers so that they can be printed on locally attached printers.

- A print queue should be installed locally for each printer. Typically the printer will be connected to a parallel or USB port on the Pcounter Station computer.
- Local print queues **should not be shared** for Windows users, so that printing will not bypass the remote print server. If remote administration of the Pcounter Station local queues is required using a GUI such as Pcontrol, sharing can be enabled, but restrict access to administrators only if possible.
- It does not matter which drivers are installed with the local print queues since printing will not be done directly to these local queues.
- If the local print queue is paused, remote print jobs will not be accepted.
- If the local print queue has more than one job waiting, remote print jobs will not be accepted until only one job is waiting or the local queue is empty. In cases such that the local printer has an error and has stopped printing, this will prevent local jobs from backing up in the queue and users being charged for print jobs which have not been printed yet.

### LPD Server

Pcounter Station can receive print jobs via LPR from remote print servers.

To activate LPR printing to a local print queue:

- Assign an LPR queue name to the local print queue.
- For extra security, add IP addresses of remote print servers to the host access list in order to prevent anyone from printing to the local queue via LPR. If the host access list is empty, then anyone who knows the IP address of the Pcounter Station computer and the LPR queue name will be able to print without restriction.
- On the remote print server, configure LPR printing by using the IP address of the Pcounter Station computer and the local LPR queue name.
- If Pcounter for NT is running on the remote print server, configure the remote print queue to use the Pcounter LPR port.
- If Pcounter for NDPS is running on the remote print server, configure the Novell Printer Gateway to print via LPR to the Pcounter Station queue.
- If Pcounter for NetWare queues is running on the remote print server, these options are available:
  - Configure Pcounter to use Active Printing Mode and setup a Pcounter printer object to service the queue, using the LPR port configuration.
  - Use the Pcounter Station NetWare queue server and configure Pcounter to use Queue Monitor Mode on the server.

### NetWare queue server

Pcounter Station can retrieve print jobs from NetWare queues to local print queues.

To activate the NetWare queue server:

- Assign a NetWare queue to the local queue.
- The user object which is configured for **Automatic logon** will be designated as a queue server for the NetWare queue. If the Automatic logon configuration is incomplete, then Pcounter Station will not be able to retrieve jobs from NetWare queues.
- If Pcounter for NetWare queues is running on the remote print server, configure Pcounter to use Queue Monitor Mode on the server.

## **Other information**

### **Station security**

When Pcounter Station is running, nothing else on the desktop is accessible. It enlarges to the full screen size and prevents the taskbar and other programs from being seen. All Windows hotkeys are disabled. However, if Pcounter Station is running on Windows NT or Windows 2000, make sure that the software component is installed which disables Ctrl-Alt-Del so that malicious users cannot shutdown the system or logoff. (Ctrl-Alt-Del is automatically disabled when running Windows 9x without any additional software.)

### **Testing the station**

During setup and testing, Pcounter Station can be run without being locked down, so that other software is accessible on the desktop. Make sure that the Global Setting: **Program functionality** is set to **Operator Console**.